MRP REVISION/NOV TRACKING FORM

Type of Proposal: X COAL ___ NONCOAL

___ Exploration
___ NOV Abatement, NOV # _____, Abatement Deadline _____
X MRP Revision

Issuing Inspector _____

Title of Proposal: Refuse Pond Dike Elevation Activities

Company name: U.S. Steel Co. Mine Name: Wellington Prep. Plt.

File # (PRO/ACT): 007/012 Acreage (Fed/State/Fee): ___/___/___
(CEP/EXP)

Assigned Reviewers:		Review Time (hrs):
(Hydrology)	Rick Summers R'd 6/1	1 hr.
(Wildlife/Veg.)		
(Engineering)	Shannon Steward	
(Soils)		
(Geology)		

DATES: Received DWH May 29/84

(a) Initial Plan Received May 25/84
Tech Review Due June 8/84
Tech Review Complete 6-7-84 RS

(b) Operator Resubmission _____
Tech Review Due _____
Tech Review Complete _____

(c) Final Approval _____
Stipulations Due _____
Stipulations Received _____

(d) NOV Termination _____

(e) Bond Revision _____

Amount ($) _____

COMMENTS: Please provide any comments as necessary. If you have none, we will just file this proposal.

NOTE (INSPECTORS): Please attach a copy of the NOV issued to the abatement plan when received from the operator.

NOTE (REVIEWERS): Please prepare review comments in a format referencing the appropriate regulation or statute. State the deficiency as well as minimum requirement necessary to demonstrate compliance (when possible). Also fill in the number of hours spent in review by discipline. Return the revision/NOV abatement to the Special Permit Supervisor when review is complete.

75660

Wayne

U.S. Steel
Mining Co., Inc.
a Subsidiary of United States Steel Corporation

WESTERN DISTRICT

P.O. BOX AE
PAONIA, COLORADO 81428
303/527-4816

RECEIVED

MAY 25 1984

DIVISION OF OIL
GAS & MINING

May 23, 1984

State of Utah
Division of Water Rights
1636 West North Temple
Salt Lake City, Utah 84116

Attn: Dee C. Hansen, P.E.
State Engineer

Re: Proposed Modification to the
Refuse Dikes
Wellington Coal Cleaning Plant
Technical Revision No. 1
ACT/007/102

Dear Mr. Hansen:

In October 1983, construction began to raise the height of the Lower Refuse Dike some 10.5 feet. The early onset of winter forced U.S. Steel Mining Co. to suspend construction until the Spring of 1984. The construction work was completed on April 10, and the pond has been placed in service. Modifications to the impoundment are described as follows:

1. The height of the impoundment was increased a minimum of 11.1 feet to a minimum crest elevation of approximately 5,383.2 feet. The impoundment has a minimum crest width of 16 feet with 3h to 1v slopes upstream and 2h to 1v downstream. The impoundment was constructed according to drawing E9-3434.

2. The material used for impoundment construction was compacted to 92% of the maximum density determined by ASTM 1557-78. U. S. Steel Mining Co. contracted with Rollins, Brown and Gunnel to inspect the construction work and perform compaction tests as the material was placed. A copy of Rollins, Brown and Gunnell's final report and compaction tests are attached.

3. In addition to the plans submitted, a diversion ditch was constructed east of the Upper Refuse Pond to divert the two small drainages away from the pond.

4. The maximum water level of the pond will be 5,381.3 (3.7 ft. of Freeboard).

(more)

If you have any questions regarding these changes, please contact V. R. Watts or myself.

Sincerely,

Glenn H. Sides
General Superintendent

Attachments

cc: V. R. Watts
L. King
B. A. Filas

James Smith
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, UT 84114

ROLLINS, BROWN AND GUNNELL, INC.
PROFESSIONAL ENGINEERS

April 23, 1984

U.S. Steel Mining Company
Western Division
P.O. Box AE
Paonia, CO 81428
Attention: Randy Watts

Gentlemen:

Attached hereto are the results of inplace density tests performed during the inspection for the U.S. Steel refuse dike near Wellington, Utah. The inspector was available on a full time basis, not only to perform the tests, but to watch the operations associated with the construction.

The contractor was not completely co-operative and it was necessary to watch him very carefully in order to insure that the work was performed in accordance with the plans and specifications.

Based upon the results of the inplace density tests and the observations formed during the construction phase for the project, it is our opinion that the work has been completed in accordance with the plans and specifications. We appreciate the opportunity to perform this work for you and we hope that we can be of service to in the future.

Yours truly,

Rollins, Brown and Gunnell, Inc.

Ralph Rollins

Ralph Rollins

RR/amr

REGISTERED PROFESSIONAL ENGINEER
RALPH L. ROLLINS
2306
State of Utah

1435 West 820 North, P.O. Box 711 • Provo, Utah 84603 • (801) 374-5771

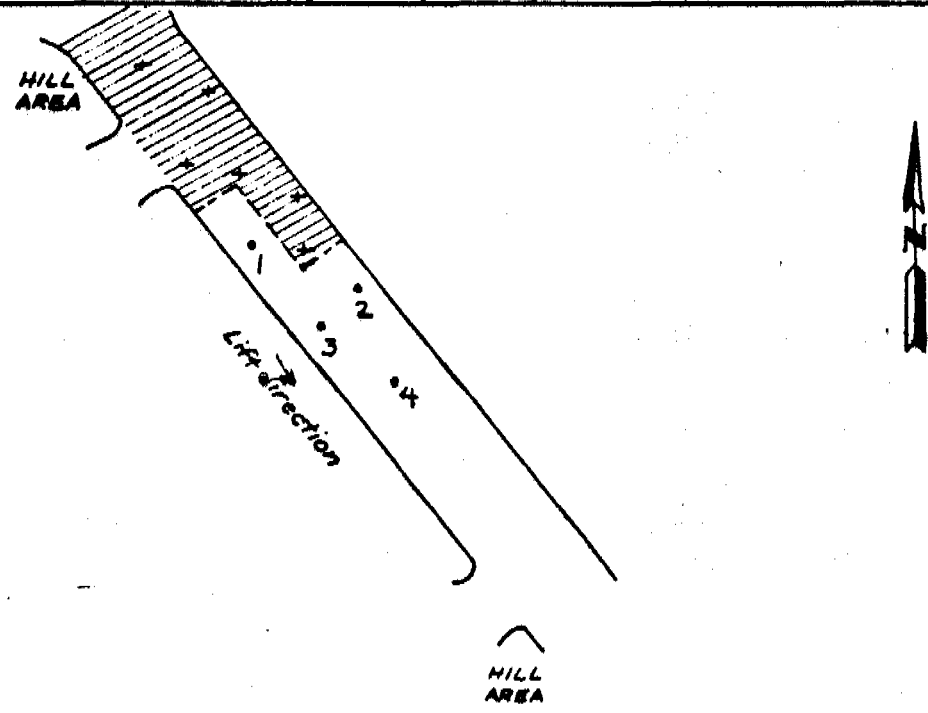
COLLINS, BROWN AND GUNNELL, INC.
PROFESSIONAL ENGINEERS
1435 West 820 North, P.O. Box 711 • Provo, Utah 84603 • (801) 374-5771

CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike — Job technician P. Baker

Address Wellington, Utah — Mailing date 4-9-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-27-84	*	8.1	104.4	111.7	93.5	
2	"		8.1	103.2	"	92.4	
3	"		8.1	103.2	"	92.4	
4	"		8.1	104.0	"	93.1	"
							* NOTE: Continuation of lift @ 2.3' Below Finish Grade. Test areas marked "x" have been previously tested.



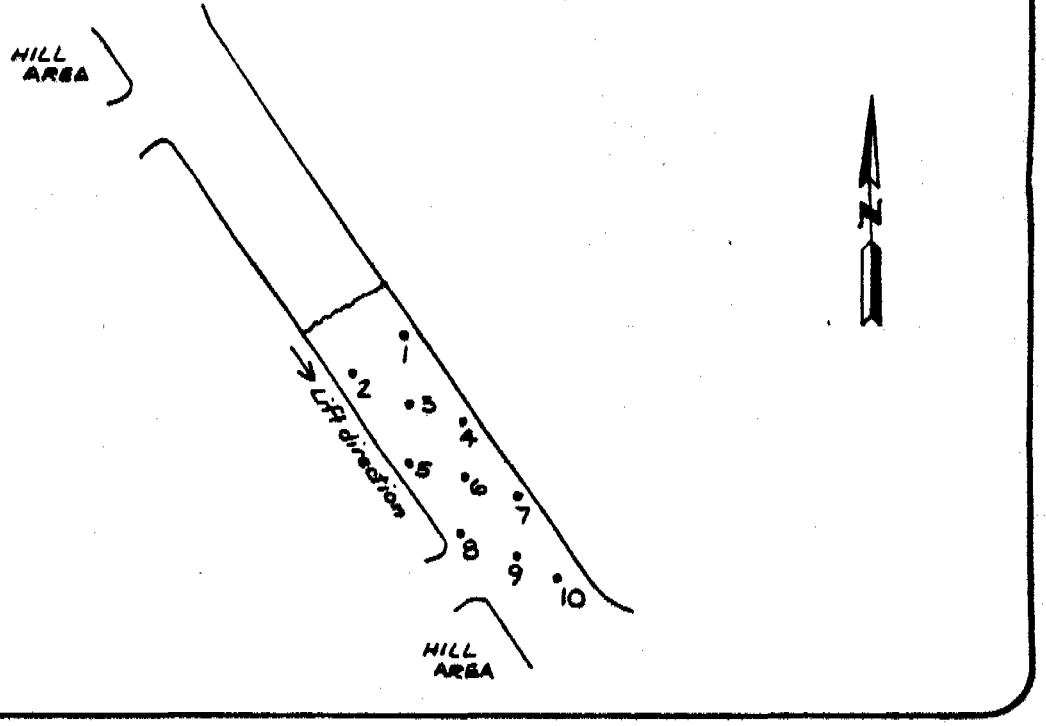
R[illegible]LINS, BROWN AND GUNNELL, [illegible]C.
PROFESSIONAL ENGINEERS
1435 West 820 North, P.O. Box 711 • Provo, Utah 84603 • (801) 374-5771

CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike — Job technician P. Baker

Address Wellington, Utah — Mailing date 4-9-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-28-84	*	8.1	105.4	111.7	94.4	
2	"		7.8	102.9	111.7	92.1	
3	"		7.8	105.2	111.7	94.2	
4	"		7.8	105.0	111.7	94.0	
5	"		7.8	104.4	111.7	93.5	
6	"		8.1	105.5	111.7	94.5	
7	"		8.1	107.5	111.7	96.2	
8	"		8.1	102.9	111.7	92.1	
9	"		8.1	104.6	111.7	93.6	
10	"		8.1	104.7	111.7	93.7	
							* NOTE: Finishing lift @ 2.3' below Finish Grade.



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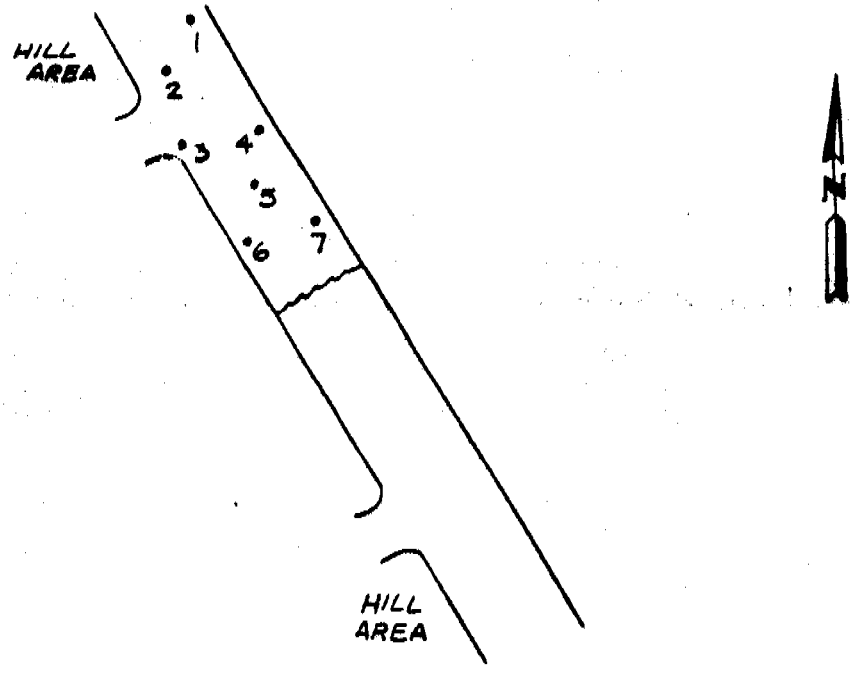
CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike — Job technician P. Baker

Address Wellington, Utah — Mailing date 4-9-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-28-84	*	8.3	103.4	111.7	92.6	
2	"		8.3	107.2	111.7	96.0	
3	"		8.3	105.9	111.7	94.8	
4	"		7.9	102.9	111.7	92.1	
5	"		8.3	107.7	111.7	96.4	
6	"		7.9	102.8	111.7	92.0	
7	"		7.9	104.8	111.7	93.8	
							* NOTE:
							Starting lift @ 1.1' below
							Finish Grade



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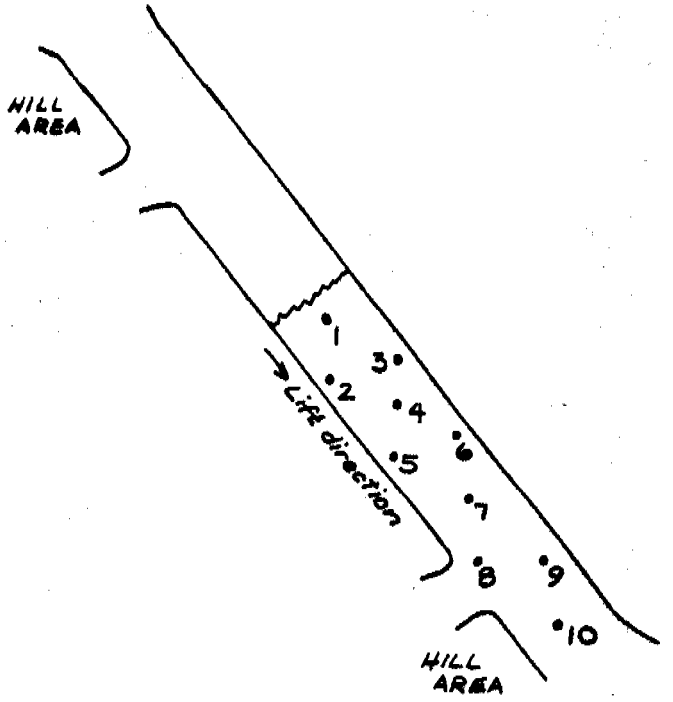
CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike — Job technician P. Baker

Address Wellington, Utah — Mailing date 4-9-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-29-84	*	8.1	104.0	111.7	93.1	
2	"		8.1	103.0	111.7	92.2	
3	"		8.1	103.5	111.7	92.7	
4	"		8.3	103.3	111.7	92.5	
5	"		8.3	102.8	111.7	92.0	
6	"		8.3	104.1	111.7	93.2	
7	"		8.3	104.9	111.7	93.9	
8	"		8.3	107.0	111.7	95.8	
9	"		8.1	103.2	111.7	92.4	
10	"		8.1	105.2	111.7	94.2	
							* NOTE:
							Continuation of lift @ 1.1' below
							Finish Grade.



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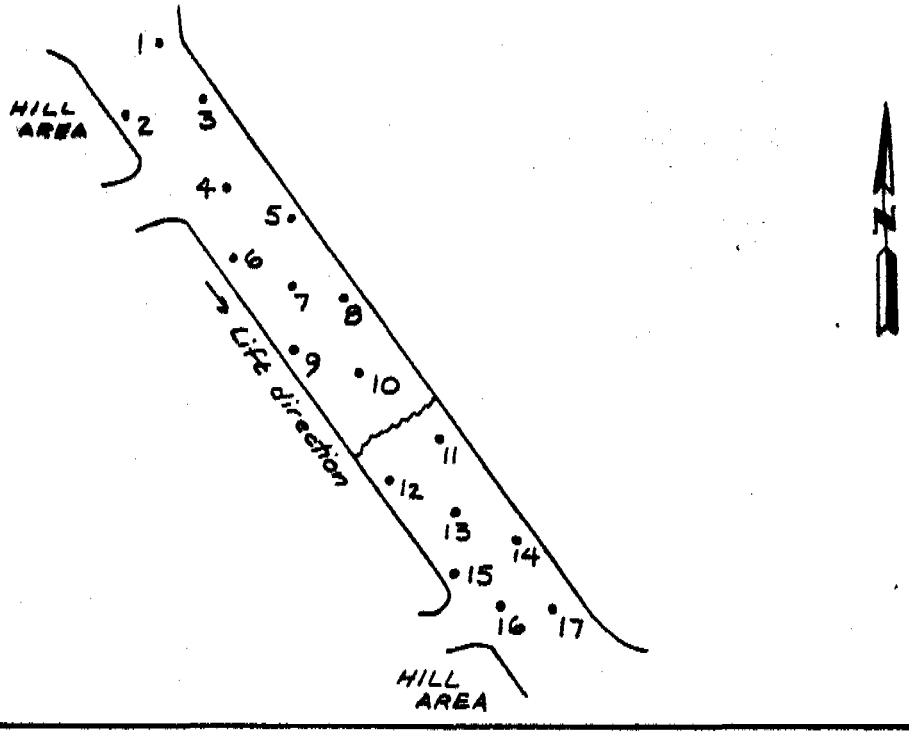
CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike
Job technician P. Baker
Address Wellington, Utah
Mailing date 4-9-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	4-2-84	FINISH GRADE	9.6	104.9	111.7	93.9	
2	"	"	9.6	105.1	111.7	94.1	
3	"	"	9.3	103.0	111.7	92.2	
4	"	"	9.6	106.3	111.7	95.2	
5	"	"	9.6	107.6	111.7	96.3	
6	"	"	9.6	105.6	111.7	94.5	
7	"	"	9.3	103.1	111.7	92.3	
8	"	"	9.6	108.6	111.7	97.2	
9	"	"	9.6	106.4	111.7	95.3	
10	"	"	9.6	104.5	111.7	93.6	
11	"	"	9.6	108.1	111.7	96.8	
12	"	"	9.6	107.4	111.7	96.2	
13	"	"	9.6	107.1	111.7	95.9	
14	"	"	9.6	107.6	111.7	96.3	
15	"	"	9.6	108.1	111.7	96.8	
16	"	"	9.6	104.4	111.7	93.5	
17	"	"	9.6	106.9	111.7	95.7	



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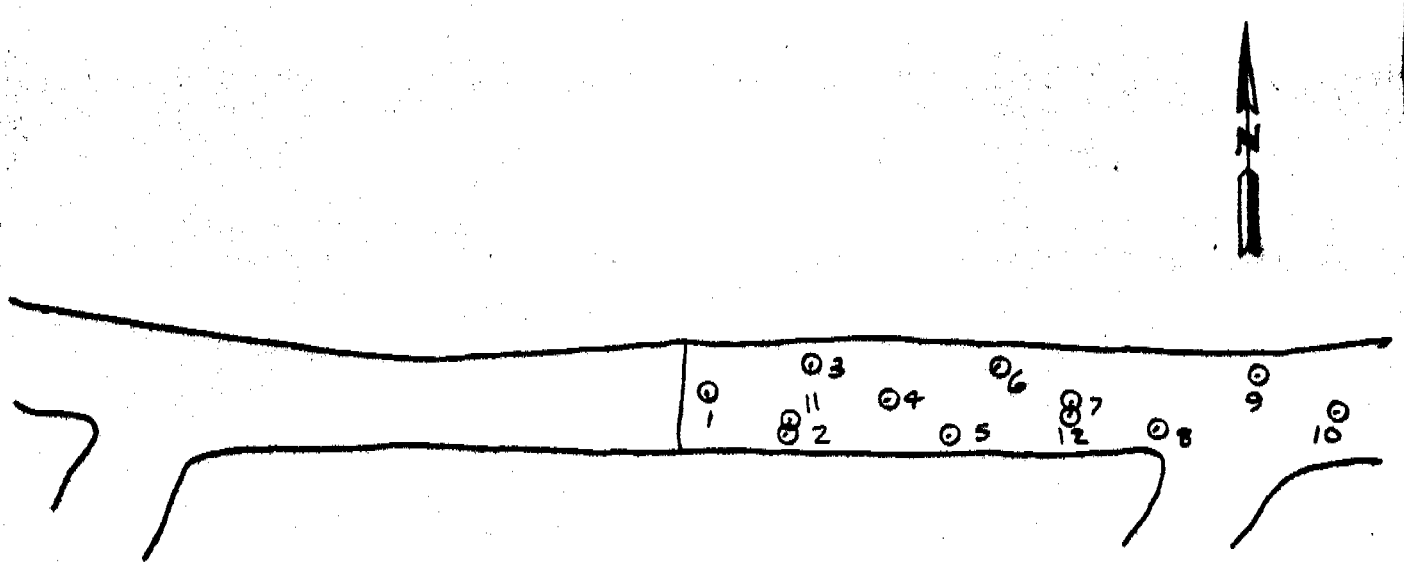
CONTROL OF COMPACTED FILL

Job name US STEEL DIKE — Job technician P. Baker

Address WELLINGTON UTAH — Mailing date 3-27-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-19-84		9.3	105.1	111.7	94.1	
2	" "	4.5' BELOW	9.3	100.5	"	90.0	
3	" "	FG LIFT	8.6	104.6	"	93.6	
4	" "	"	8.6	105.2	"	94.2	"
5	" "	"	8.6	103.2	"	92.4	
6	" "	"	9.3	108.2	"	96.9	
7	" "	"	8.6	101.7	"	91.0	
8	" "	"	8.6	104.0	"	93.1	
9	" "	"	8.6	103.2	"	92.4	
10	3-20-84	"	8.6	104.8	"	93.8	
11	3-19-84	"	8.6	103.5	"	92.7	RETEST OF NO. 2
12	" "	"	8.6	105.8	"	94.7	RETEST OF NO. 7



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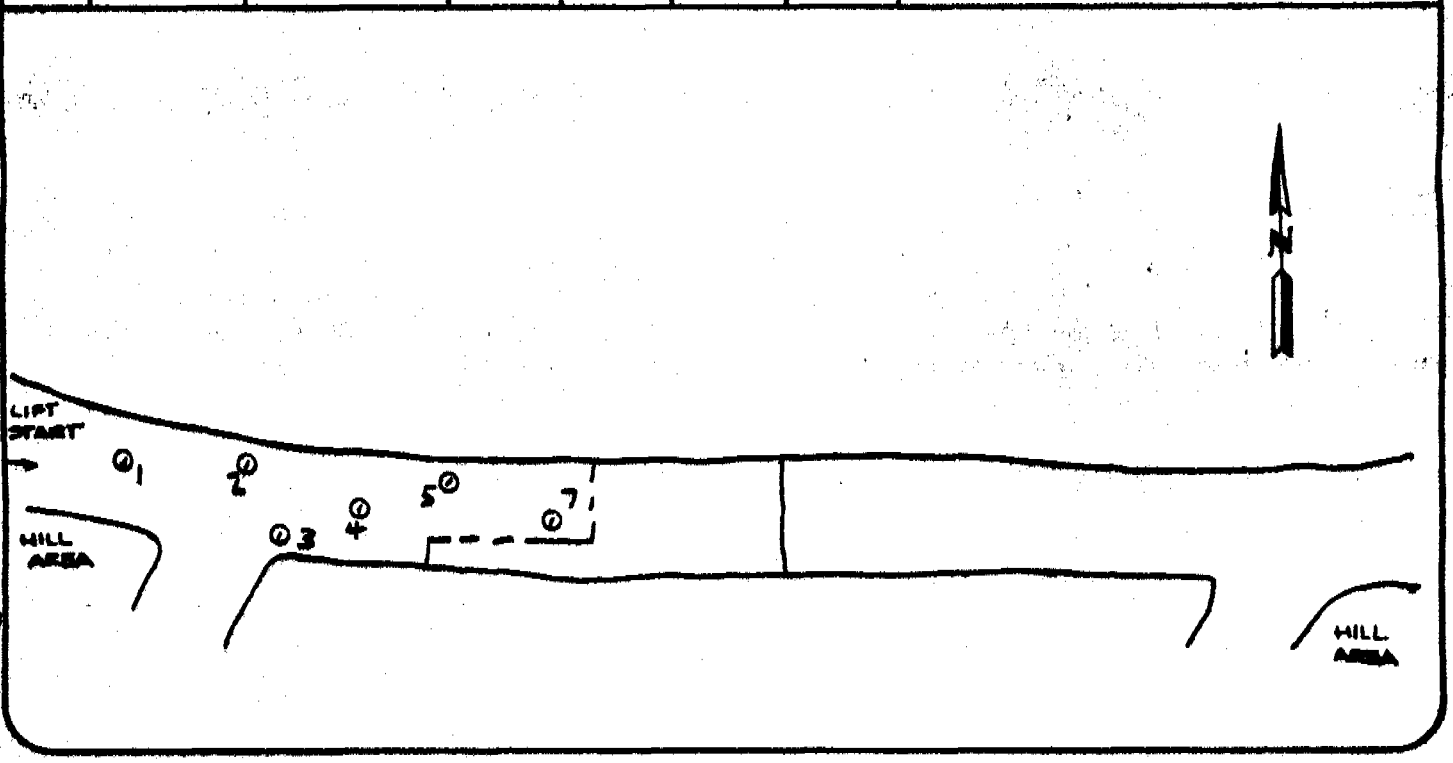
CONTROL OF COMPACTED FILL

Job name U S STEEL DIKE Job technician P. Baker
Address WELLINGTON, UTAH Mailing date 3-27-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-22-84	3.3' BELOW	9.1	103.4	111.7	92.6	
2	" "	F.G.	9.1	103.6	"	92.7	
3	" "	"	9.1	104.1	"	93.2	
4	" "	"	9.1	105.0	"	94.0	
5	" "	"	8.3	102.8	"	92.0	
7	" "	"	8.3	103.0	"	92.2	



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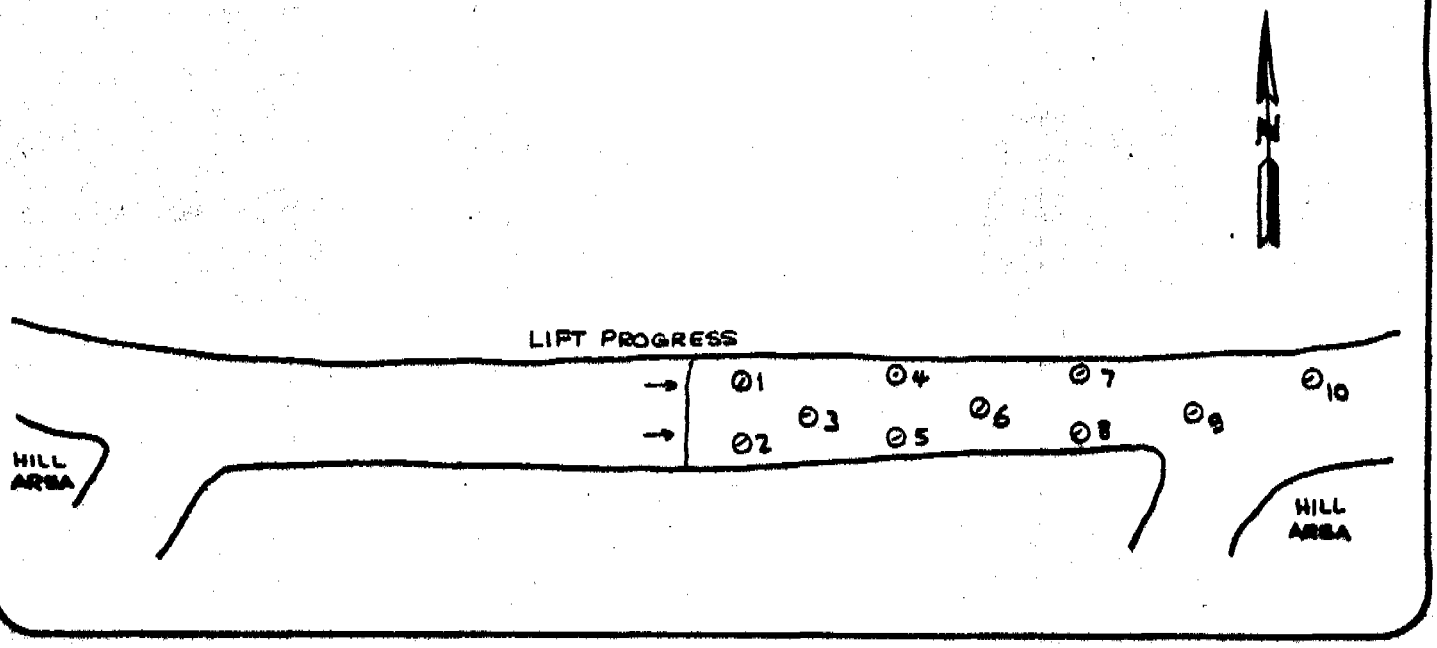
CONTROL OF COMPACTED FILL

Job name U S STEEL DIKE — Job technician P. Baker
Address WELLINGTON UTAH — Mailing date 3-27-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-21-84	3.5' BELOW	9.1	104.0	111.7	93.1	
2	" "	F.G.	9.1	109.7	"	98.2	
3	" "	"	9.1	107.4	"	96.2	
4	" "	"	8.0	103.0	"	92.2	"
5	" "	"	8.0	106.9	"	95.7	
6	" "	"	9.6	106.0	"	94.9	
7	" "	"	9.6	108.0	"	96.7	
8	" "	"	9.6	107.4	"	96.2	
9	" "	"	9.1	106.0	"	94.9	
10	" "	"	9.1	103.4	"	92.6	



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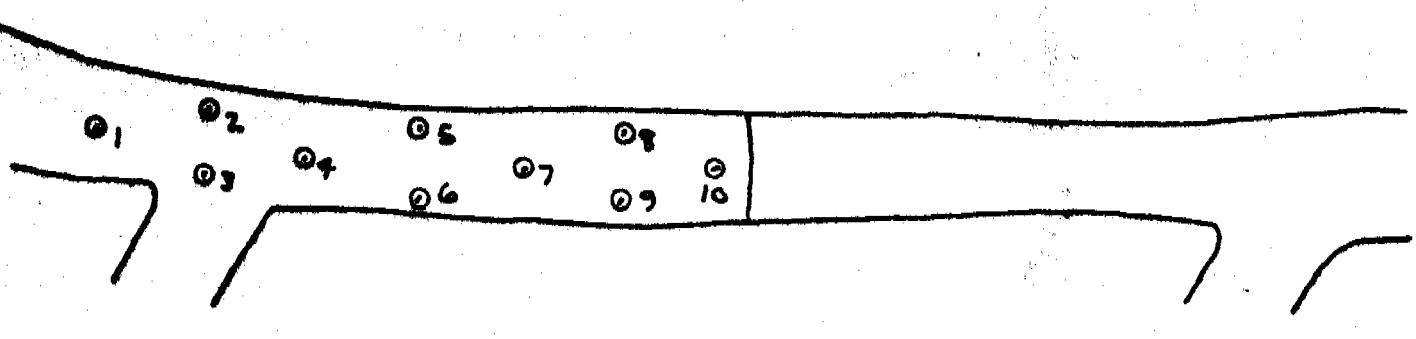
CONTROL OF COMPACTED FILL

Job name U S STEEL DIKE — Job technician P. Baker

Address WELLINGTON UTAH — Mailing date 3-27-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-20-84	3.5' BELOW	9.6	104.6	111.7	93.6	
2	" "	F.G.	8.3	105.0	"	94.0	
3	" "	"	8.3	102.9	"	92.1	
4	" "	"	9.6	106.1	"	95.0	"
5	" "	"	9.6	102.6	"	91.9	
6	" "	"	9.6	103.2	"	92.4	
7	" "	"	9.6	104.2	"	93.3	
8	" "	"	8.3	103.0	"	92.2	
9	" "	"	9.6	103.4	"	92.6	
10	" "	"	9.6	107.8	"	96.5	



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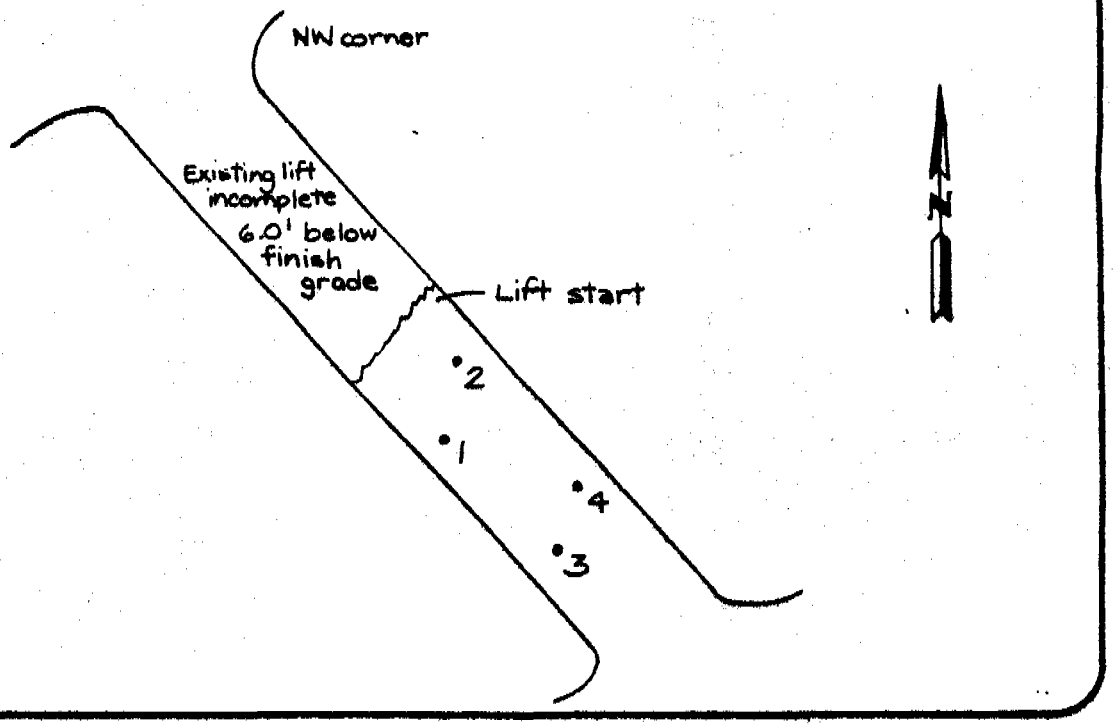
1435 West 820 North, P.O. Box 711 • Provo, Utah 84603 • (801) 374-5771

CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike
Job technician Paul Baker
Address Wellington, Utah
Mailing date 3-12-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-9-84	6' below finish	8.0	102.9	111.7	92.1	
2	"	"	8.0	103.1	111.7	92.3	
3	"	"	8.0	106.2	111.7	95.1	
4	"	"	8.0	109.9	111.7	98.3	



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PROFESSIONAL ENGINEERS
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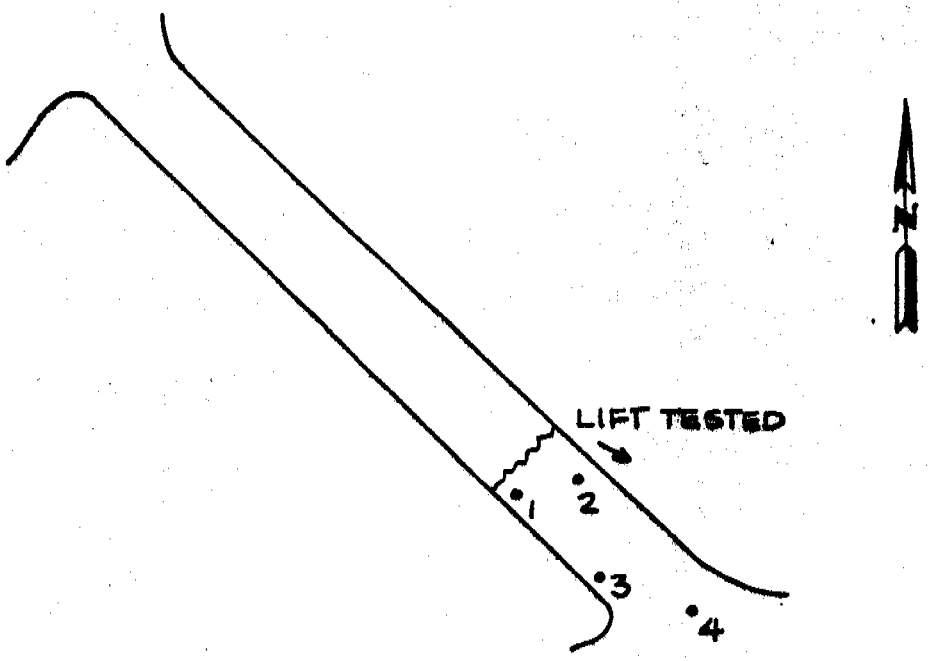
CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike Job technician Paul Baker
Address Wellington, Utah Mailing date 3-20-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-12-84	6' BELOW FINISH GRADE	8.0	104.2	111.7	93.3	
2	"	"	8.0	102.6	111.7	91.9	
3	"	"	8.0	104.1	111.7	93.2	
4	"	"	8.0	106.9	111.7	95.7	"



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PROFESSIONAL ENGINEERS
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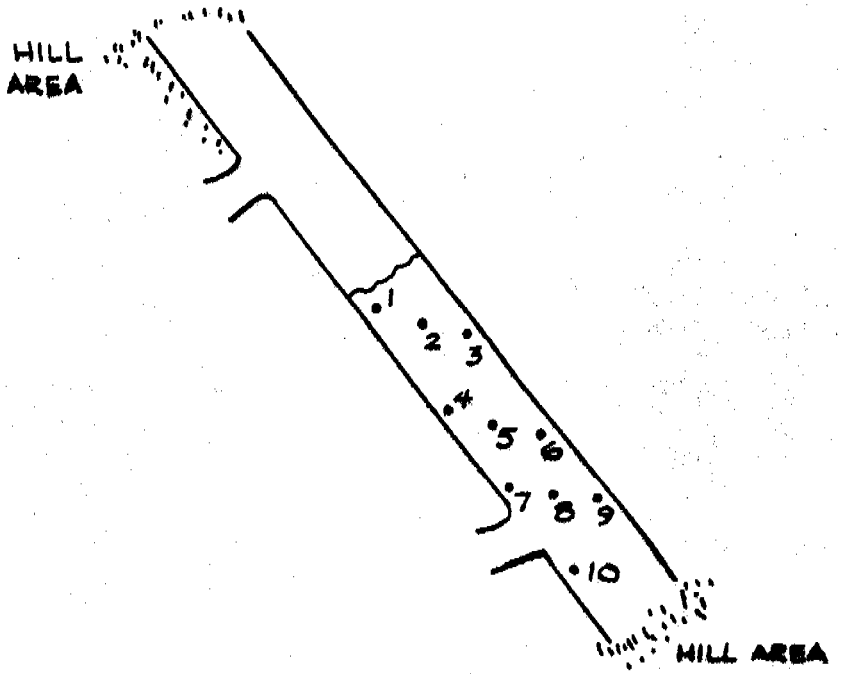
CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike Job technician Paul Baker

Address Wellington, Utah Mailing date 3-20-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-13-84		10.2	104.6	111.7	93.6	
2	"		9.8	103.8	"	92.9	
3	"		9.0	101.4	"	90.8	
4	"		12.6	106.3	"	95.2	
5	"		12.6	105.3	"	94.3	
6	"		10.2	103.8	"	92.9	
7	"		9.0	102.5	"	91.8	
8	"		10.2	104.3	"	93.4	
9	"		10.2	103.9	"	93.0	
10	"		9.8	104.0	"	93.1	



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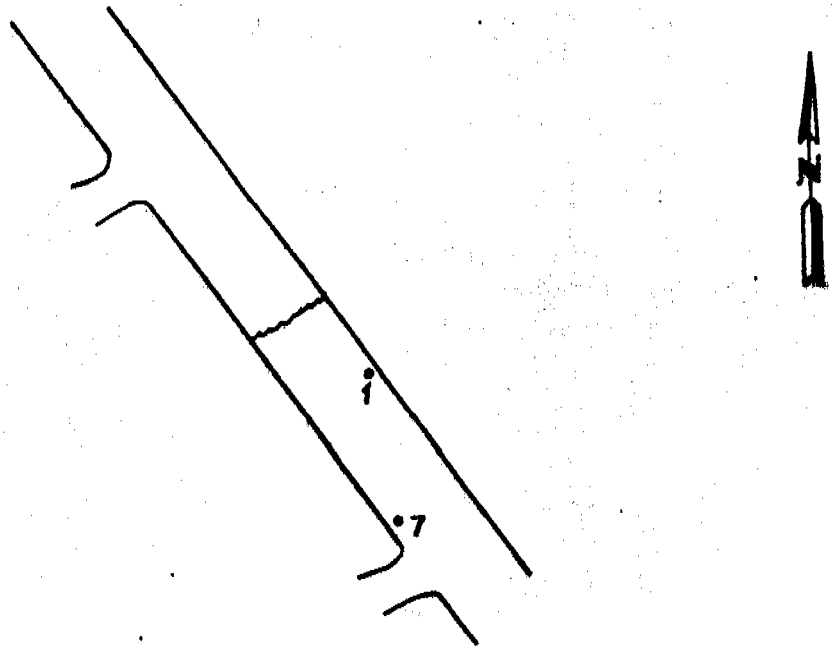
CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike
Address Wellington, Utah
Job technician Paul Baker
Mailing date 3-20-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-14-84		9.0	107.2	111.7	96.0	Retest of No. 3 (3-13-84)
2	"		9.0	103.8	111.7	92.0	Retest of No. 7 (3-13-84)



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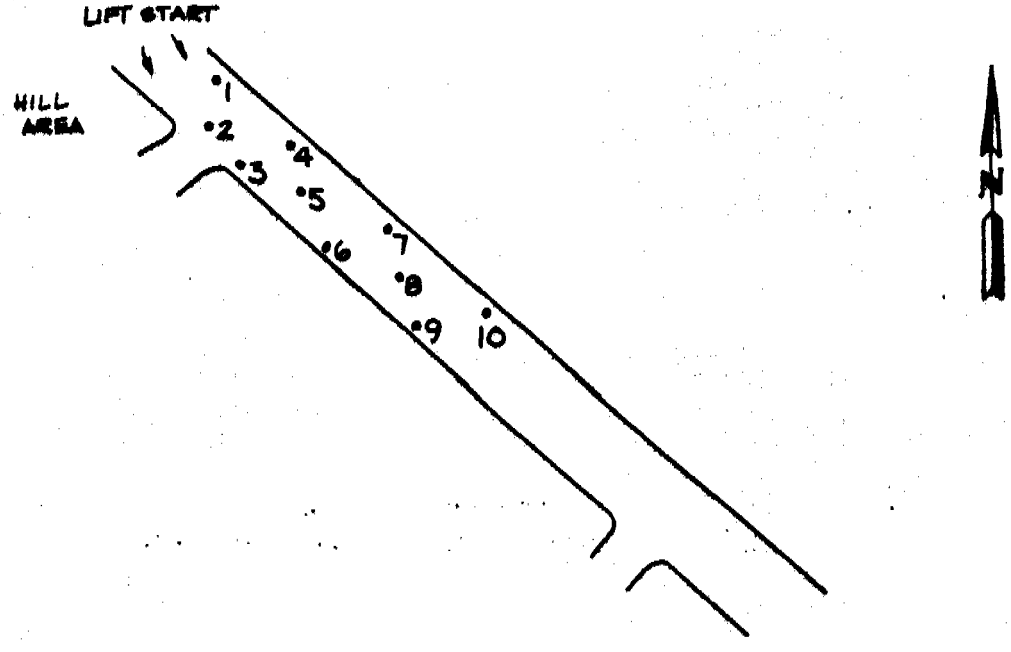
CONTROL OF COMPACTED FILL

Job name U.S. Steel Settling Pond Dike — Job technician Paul Baker

Address Wellington, Utah — Mailing date 3-20-84

No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1	3-16-84		10.9	107.4	111.7	96.2	
2	"		10.9	107.2	"	96.0	
3	"		9.0	103.2	"	92.4	
4	"		10.9	106.6	"	95.4	
5	"		10.5	105.6	"	94.5	
6	"		10.5	107.3	"	96.1	
7	"		10.5	105.5	"	94.4	
8	"		10.9	108.0	"	96.7	
9	"		10.9	107.3	"	96.1	
10	"		9.0	108.1	"	96.8	



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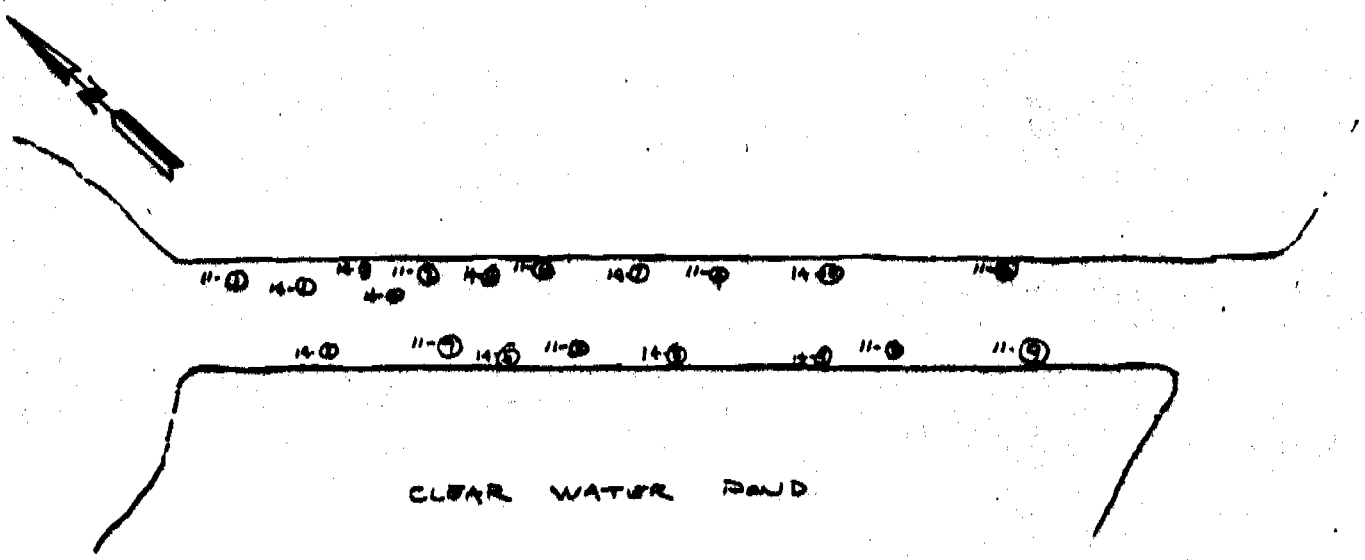
1435 West 820 North, P.O. Box 711 • Provo, Utah 84603 • (801) 374-5771

CONTROL OF COMPACTED FILL

Job name U.S. STEEL SETTLING POND DIKE Job technician D. GREEN

Address WELLINGTON UTAH Mailing date

No	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
1-1	11-11-83	10' below Finish	7.0	100.7	111.7	90.2	
2		9' " "	8.0	107.2	"	96.0	
3		9' " "	8.0	100.2	"	90.0	
4		9' " "	8.0	103.1	"	92.3	
5		9' " "	8.0	111.3	"	99.6	
6		9' " "	8.0	106.6	"	95.4	
7		9' " "	8.0	105.1	"	94.1	
8		9' " "	8.0	101.5	"	90.9	
9		9' " "	8.0	103.8	"	92.9	
14-1	11-14-83	8' below Finish	8.0	105.7	111.7	94.7	
2		8' " "	8.0	104.6	"	93.7	
3		8' " "	8.0	96.2	"	86.1	
4		8' " "	8.0	98.5	"	88.2	
5		8' " "	8.0	103.7	"	92.8	
6		8' " "	8.0	101.6	"	91.0	
7		8' " "	8.0	101.3	"	90.7	
8		8' " "	8.0	101.1	"	90.5	
9		8' " "	8.0	110.6	"	99.0	
10		8' " "	8.0	109.4	"	97.9	



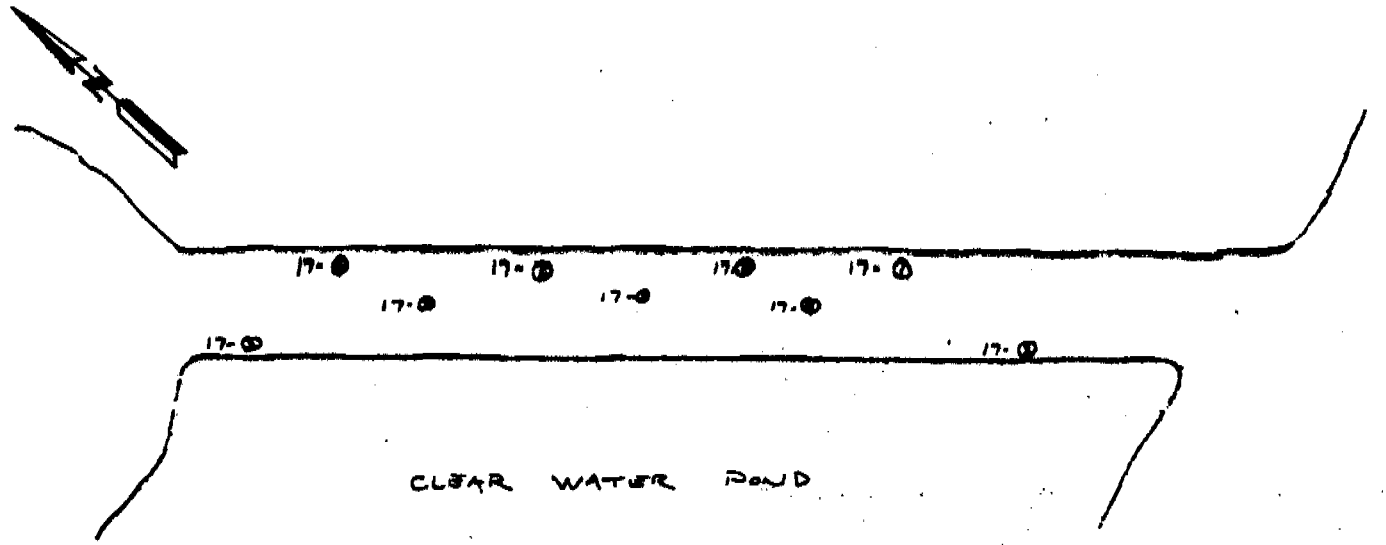
ROLLINS, BROWN AND GUNNELL, L. L.
PROFESSIONAL ENGINEERS
1435 West 820 North, P.O. Box 711 • Provo, Utah 84603 • (801) 374-5771

CONTROL OF COMPACTED FILL

Job name U.S. STEEL SETTLING POND - DIKE Job technician D. GREEN

Address WASHINGTON, UTAH Mailing date

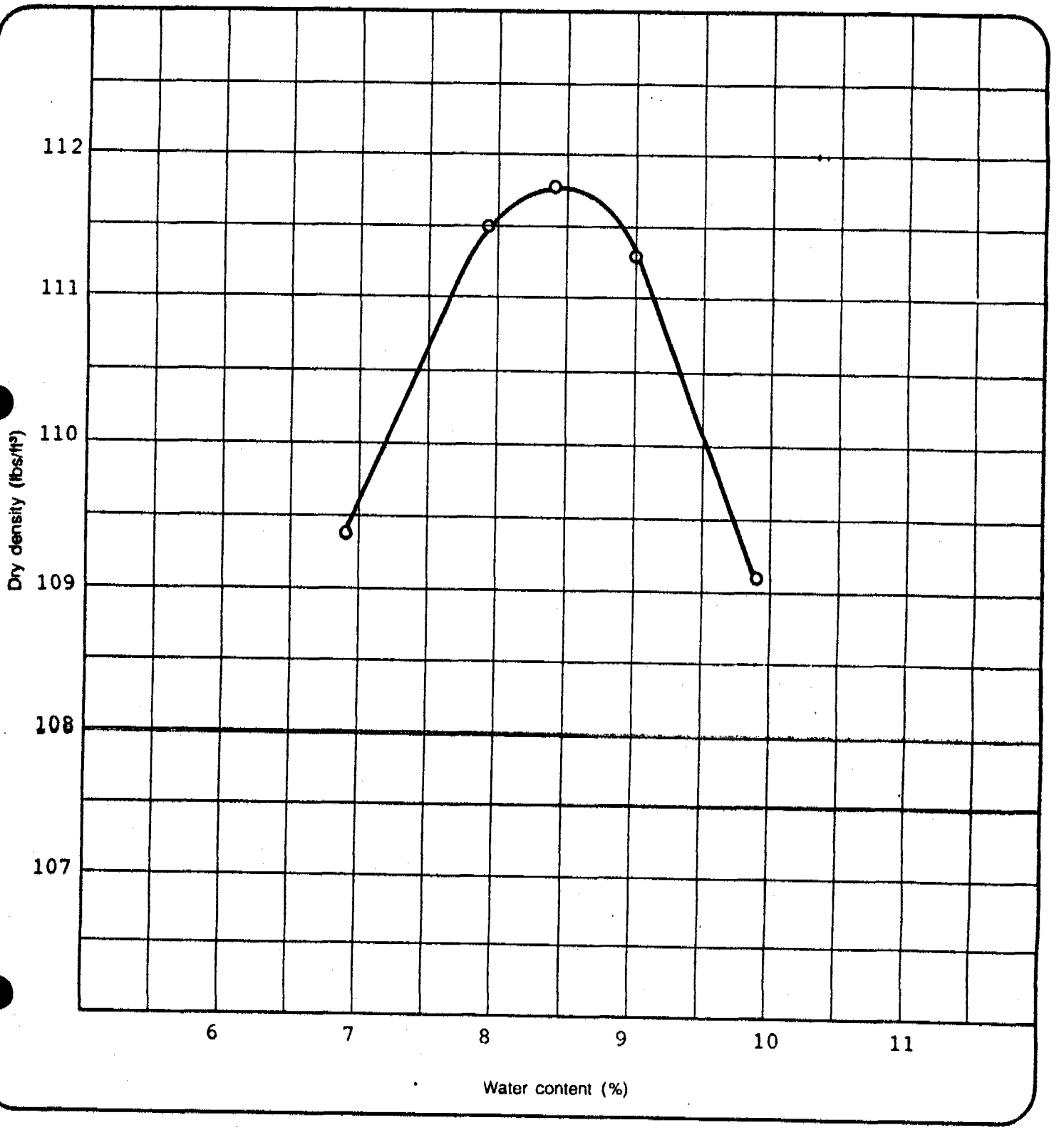
No.	Date	Elevation	Moisture content (%)	In-place density (lbs/ft³)	Maximum density (lbs/ft³)	Maximum density (%)	Remarks
17-1	11-17-83	8' below Finish	8.0	103.0	111.7	92.2	
2		9' " "	8.0	103.1	"	92.3	
3		7' " "	8.0	102.6	"	91.9	
4		7' " "	8.0	107.2	"	96.1	
5		7' " "	8.0	106.3	"	95.2	
6		7' " "	8.0	106.8	"	95.6	
7		7' " "	8.0	104.2	"	93.3	
8		7' " "	8.0	105.5	"	94.4	
9		7' " "	8.0	108.0	"	96.7	



R[illegible]LINS, BROWN AND GUNNELL, [illegible]C.
PROFESSIONAL ENGINEERS
1435 West 820 North, P.O. Box 711 • Provo, Utah 84603 • (801) 374-5771

SOIL MOISTURE DENSITY RELATIONSHIP
ASTM D 1557-78

Job name Lower Refuse Dikes
Feature Black Tailings
Job engineer R. Price
Maximum dry density = 111.8 lbs/ft³
Test date 11-3-83 Mailing date 11-21-83
Optimum moisture = 8.4 %



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

June 11, 1984

Mr. Glenn H. Sides
General Superintendent
U. S. Steel Mining Company, Inc.
P. O. Box AE
Paonia, Colorado 81428

RE: Proposed Modification to the
Refuse Dikes
Wellington Coal Cleaning Plant
Technical Revision No. 1
ACT/007/012, #3 and #4
Carbon County, Utah

Dear Glenn:

The Division has reviewed a copy of U. S. Steel Mining Company's Technical Revision No. 1, received May 25, 1984 which pertains to the proposed modification to the refuse dikes at the Wellington Coal Cleaning Plant.

The Division has no comment at this time. We appreciate the Company keeping us informed of the changes in operations at the processing plant. Thank you once again for the opportunity to provide comment.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor/
Reclamation Hydrologist

DWH/btb
cc: Allen Klein, OSM
Jim Smith, DOGM
Rick Summers, DOGM
89920-12

File: ACT/007/012
#3 & 15 w/maps

U. S. Steel
Mining Co., Inc.

WESTERN DISTRICT

a Subsidiary of United States Steel Corporation

P.O. Box 1270
PAONIA, COLORADO 81428
303/527-4816

June 19, 1985

RECEIVED
JUN 21 1985
DIVISION OF OIL
GAS & MINING

Mr. Lowell P. Braxton
Administrator, Mined Land Development
Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

RE: Modifications to Refuse Ponds, Wellington Coal Cleaning Plant
ACT/007/012

Dear Mr. Braxton:

U. S. Steel Mining Co., Inc. proposes to increase the height of the North Dike and the Upper Refuse Dike to a crest elevation of 5395.75 (11.25 feet relative to the Lower Refuse Dike). These changes are included in the approved Operation and Reclamation Plan (ORP) for the Wellington Coal Cleaning Plant, refer to Appendix E. The discussion in Appendix E requires that the final construction plans be submitted to the Division prior to construction.

Enclosed with this letter are seven copies of the final construction plans. Should you wish to insert them in the ORP, the pages have been formatted for insertion in Appendix E following page E-3.

Please advise us if you do wish to insert this plan in the ORP and we will provide revised index pages for the front of the ORP.

U. S. Steel Mining Co. is currently planning to begin construction in August 1985. Should you have any questions regarding this submittal, please contact V. R. Watts at 303-527-4816.

Sincerely,

GH Sides (VRW)

G. H. Sides
General Manager

GHS/kb
Enclosure

cc: B. A. Filas
V. R. Watts
J. F. Sweeney

w/o encl.: EC File

U.S. Steel
Mining Co., Inc.

WESTERN DISTRICT

a Subsidiary of United States Steel Corporation

P.O. Box 1270
PAONIA, COLORADO 81428
303/527-4816

June 19, 1985

Mr. Lowell P. Braxton
Administrator, Mined Land Development
Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

RE: Modifications to Refuse Ponds, Wellington Coal Cleaning Plant
ACT/007/012

Dear Mr. Braxton:

U. S. Steel Mining Co., Inc. proposes to increase the height of the North Dike and the Upper Refuse Dike to a crest elevation of 5395.75 (11.25 feet relative to the Lower Refuse Dike). These changes are included in the approved Operation and Reclamation Plan (ORP) for the Wellington Coal Cleaning Plant, refer to Appendix E. The discussion in Appendix E requires that the final construction plans be submitted to the Division prior to construction.

Enclosed with this letter are seven copies of the final construction plans. Should you wish to insert them in the ORP, the pages have been formatted for insertion in Appendix E following page E-3.

Please advise us if you do wish to insert this plan in the ORP and we will provide revised index pages for the front of the ORP.

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Sincerely,

G H Sides

G. H. Sides
General Manager

GHS/kb
Enclosure

cc: B. A. Filas
V. R. Watts
J. F. Sweeney

w/o encl.: EC File

U. S. STEEL MINING CO., INC.

Western District

Wellington Coal Cleaning Plant

Raise Upper Refuse Dike and North Dike
Final Construction Plans

The Wellington Coal Cleaning Plant and its associated refuse ponds have been operated for approximately 27 years. Waste Rock and coal fines are pumped to the refuse disposal area east of the Price River through one of two pipelines. The refuse ponds are a major component of the refuse disposal area and serve to clarify the water discharged with the waste rock and coal fines. The clarified water is then returned to the plant for reuse. As the plant ages, the refuse ponds will gradually fill with sediments. This fact was recognized in the Wellington Coal Cleaning Plant Operation and Reclamation Plan (ORP) and Appendix E presented long range plans for modifications to the refuse dikes.

In approximately 1978, the Upper Refuse Pond was removed from service and all clarification was done in the Lower Refuse Pond. In 1983, the height of the Lower Refuse Dike was increased some 11.1 feet to provide additional sediment storage capacity with an adequate freeboard. Work on the Lower Refuse Dike was completed in the spring of 1984.

In order for the refuse ponds to work most efficiently and to provide adequate sediment storage capacity for the life of the plant, the Upper Refuse Pond must be returned to service. U. S. Steel Mining Co. proposes to proceed with Phase 2 of the refuse pond modifications as outlined in the ORP (Appendix E). Detailed construction plans are as follows:

Proposed Modifications

U. S. Steel Mining Co. proposes to increase the height of the Upper Refuse Dike and the North Dike some 11.25 feet to a crest elevation of 5395.75 (5395 + 0.75 for settling). A plan view and cross sections of the proposed modifications are shown on Drawings E9-3455 and E9-3456 respectively. Drawing E9-3457 shows the design for keying the impoundments into the natural hillside east of the Upper Refuse Pond. The current contours of the area are shown on Drawing E9-3458.

Construction Details

The height of the impoundments will be raised using coarse slurry as a construction material. The fill material will be placed in 12 inch lifts and compacted to 92% of the maximum laboratory density as determined by ASTM D 1557-78. Vegetation material will be stripped from all areas the impoundments will contact to prevent vegetation from being included in the fill. The upstream faces of both impoundments will be riprapped with 18 inches of coarse refuse as shown on Drawing E9-3456. The construction will be similar to the work performed on the Lower Refuse Dike in 1983-1984.

Stability

U. S. Steel Mining Co., Inc. contracted with Rollins, Brown and Gunnell, Inc. to review the design drawings and detailed construction specification. and to provide a stability analysis. A copy of Rollins, Brown and Gunnell's report is attached along with U. S. Steel Mining Co.'s comments. Please note that the construction specification is not included as part of this submittal, but a more general description of construction methods is included in the preceding paragraph.

Rollins, Brown and Gunnell, Inc. estimated the minimum safety factors for the Upper Refuse Dike to be 1.5 (1.2 seismic). The North Dike was estimated to have a minimum safety factor of 1.8 (1.3 seismic). Therefore, the structures will be stable. A detailed site investigation was included in 1983 and is included in Technical Revision No. 1 to the ORP.

Hydrology

Technical Revision No. 1 contains complete hydrologic calculations for the Upper Refuse Pond, Lower Refuse Pond, and the Clear Water Pond. The Upper Refuse Pond is contained by two impoundments, the Upper Refuse Dike and the North Dike. The hydrologic calculations for the Upper Refuse Pond will apply to both impoundments.

Technical Revision No. 1 contains full calculations for the following:

1. Storm hydrographs for various precipitation events.
2. Estimates of water levels in all ponds during various precipitation events.
3. Calculations showing that the overflow structure can pass a 100 year 24 hour storm.

The Lower Refuse Pond has been in full operation for approximately 1 year. No seepage has been experienced through the dike to date. The existing North Dike is constructed of a relatively low permeability clay material. This material will be left in place, but compacted to a higher density. This should help prevent any seepage into the diversion ditch. Any seepage through the Upper Refuse Dike would enter the Lower Refuse Pond.

Pond Operation

The calculations in Appendix A of Technical Revision No. 1 indicate that the water level in the Upper Refuse Pond would rise 0.22 feet during a 100 year 24 hour precipitation event. In order to maintain a 3 foot freeboard during a 100 year 24 hour precipitation event, the maximum water level must be 3.22 feet below the crest. Drawing E9-3456 shows the maximum water level as 5392.0 which is 3.75 feet below the crest.

Sedimentation Control

It is proposed to construct a nominal 1 foot high earthen berm along the toe of the North Dike parallel to the diversion ditch. Silt fence will be installed every 500 feet. This structure will provide sedimentation control for any runoff from the downstream face of the North Dike. Any runoff from all other areas will be contained in the refuse ponds and treated with the process water.

Topsoil

The Upper Refuse Pond is surrounded by coarse slurry on the west, vertical cliffs on the east, and dikes on the north and south. Therefore, the area which contains soil suitable for use in reclamation is small, refer to Drawing E9-3458. A soil sample was taken to determine how much soil should be salvaged for future use in reclamation. The results of the sample are shown on Table 1. These sample results were compared with Table II-A (Determination of the Completeness Response of the ORP) to determine the soil suitability for reclamation. Samples 11a and 11b could generally be categorized as fair to good while 11c was generally poor. In accordance with the requirements of the ORP, soil in the area shown on Drawing E9-3458 will be salvaged to an approximate of 32 inches. The salvaged soil will be stockpiled at the location shown on Drawing E9-3458 in accordance with the ORP.

Reclamation

The proposed modifications to the North Dike and the Upper Refuse Dike are included in the approved Wellington Operation and Reclamation Plan. No modifications to the reclamation plan or reclamation bond are required.

TABLE 1

	Sample		
	11a	11b	11c
Sample Interval	0-16 in.	16-32 in.	32-42 in.
pH	8.00	7.80	7.80
% Sand	51.28	52.28	50.56
% Clay	14.72	10.72	15.08
% Silt	34.00	37.00	34.36
Texture	Loam	Sandy Loam	Loam
% Organic Matter	1.10	0.47	0.46
PPM P	9.09	6.47	5.47
PPM K - Av.	188.80	51.20	124.80
EC x 1000	1.44	3.60	6.30
% N	0.066	0.027	0.029
PPM Ca	155.84	291.36	330.40
PPM Mg	51.20	174.08	312.32
PPM Na	79.84	113.60	881.28
SAR	1.41	1.30	8.31
Saturation %	31.5	31.6	36.5
% $CaCO_3$	6.63	0.96	1.26
Alkalinity mg/l	358	304	240

ROLLINS, BROWN AND GUNNELL, INC.
PROFESSIONAL ENGINEERS

May 25, 1985

U.S. Steel Mining Corporation, Inc.
P.O. Box AE
Paonia, Colorado 81428

Attn.: V.R. Watts, District Engineer

Re: Impoundment Modifications for Upper Refuge Dike and North Dike at Wellington Coal Cleaning Plant

Gentlemen:

In accordance with your request, we have reveiwed the construction drawings and specifications for the Upper Refuge Dike and North Dike Modifications. In addition to this, stability analyses have been performed for both dikes for static and seismic conditions. The results of our review and analysis are presented below as follows:

I. Construction Drawings

A. Sheet E9-3455

We recommend that survey information be shown for construction layout. In particular, the curve data and stationing at which the curves are to be located should be shown on the the North Dike alignment.

B. Sheet E9-3456

1. It is our opinion that the Contractor will have difficulty excavating the keyway in the fine refuge as shown in Section AA and Section DD if the water in the ponds is near the surface of the fine refuge. It is also questionable if the slurry will stand on a slope of 0.5 vertical to one horizontal during compaction of the course refuge. It is our opinion that the course refuge could be placed directly on the fine

1435 West 820 North, P.O. Box 711 • Provo, Utah 84603 • (801) 374-5771

refuge without excavating a key into the fine refuge. If a keyway is to be placed, however, we suggest that the slurry be excavated with a bottom width of ten feet and side slopes of two horizontal to one vertical. The drawings should show the depth of the excavation and also the side slopes.

2. Consideration might be given to making the top width fifteen feet including riprap, thus reducing the quantity of course coal refuge by several thousand cubic yards. It should be noted that the stability analysis performed was based upon a fifteen foot crest width including riprap.

3. Details of the antiseep collars should be shown.

4. Dimensions of details of the concrete support at the overflow elbow should be indicated.

5. Where the front dike extends onto the natural ground surface as shown in Section CC and Section EE, we recommend that a keyway be provided. The keyway should extend in the natural material for a depth of five feet. From a construction standpoint, we recommend that the base width be at least ten feet wide and that the slide slopes be two horizontal to one vertical.

C. Sheet E9-3457

1. We recommend that a section view be shown indicating the slide slope of the abutment keyways.

2. We recommend that a profile view of the abutment be shown indentifying the extent of the keyway into the abutments.

II. Specifications

A. Item 411

We suggest that the Contracter be required to submit a work progress schedule for approval prior to being awarded the contract. This schedule could then be incorporated into the contract.

B. Item 702

The following should be inserted: "...of 8 inches, moisture condition, and compacted..."

C. Item 704

The following should be inserted: "...12 inch layers, moisture conditions such that the moisture content is in the range of 2% below to 2% above the optimum, and compacted..."

D. Item 802.3

The following should be inserted: "...of 8 inches, moisture condition, and compacted..."

E. Item 804

The following should be inserted: "...12 inch layers, moisture conditions such that the moisture content is in the range of 2% below to 2% above the optimum, and compacted..."

F. Item 811

We suggest that this item be changed to more clearly identify the task. Consideration might be given to pluging the pipe if removal is difficult.

G. Item 903

Drawing E9-3435 was not furnished. This drawing may clarify details of the antiseep collar.

H. Items 904 and 905

We suggest that the Owner furnish the design for the walkway.

I. Item 907

This item appears inconsistent with Item 902 which requires that existing overflow structure to be relocated.

III. Stability Analysis

A. Upper Refuge Dike

The cross section shown on Sheet E9-3456 has been modified from the cross section on which the static stability analysis was performed in the March 1983 report. It will be observed from Figure No. 33, that the cross section analyzed had a side slope of two horizontal to one vertical on the lower refuge pond side and three horizontal to one vertical on the upper refuge pond

side. Sheet E9-3456 indicates a slide slope of three horizontal to one vertical on the lower refuge pond side and two horizontal to one vertical on the upper refuge pond side. It should be noted that the critical slope is the lower refuge pond side. Since the side slope has been flattened from two to one to three to one, the factor of safety for the static condition should increase from that shown in Figure No. 33 of the March 1983 report. A stability analysis was performed for the static condition for both the lower pond and the upper pond sides and the results of this analysis are presented in Figure No. 1 attached hereto. The stability analysis used effective stress parameters and was based on Bishop's Modified Method. The strength parameters are compatible with those used in the March 1983 report. It will be observed from this figure that a static factor of safety of 1.5 was obtained for the lower pond side while a factor of safety of 2.2 was obtained for the upper pond side. It should be noted that during the analysis for the upper pond side, the water level was assumed to be at elevation 5381.5. During the March 1983 report, no consideration was given to seismic stability for the Upper Refuge Dike. As indicated in the March 1983 report, the proposed facilities are located in Seismic Zone 2. The probability of a large intensity earthquake was relatively small. In order to obtain an indication of the effect of seismic activity a pseudostatic analysis has been performed. During this analysis for the Upper Refuge Dike, it will be observed from Figure No. 1 that a horizontal force of 0.1 g was applied and that factors of safety of 1.2 and 1.6 were obtained during the pseudostatic analysis. This approach indicates that a degree of safety exists for the dikes under seismic activity.

B. North Dike

The cross section for the North Dike is essentially the same as that shown in Figure No. 34 of the March 1983 report. During that report, the unit weight for the course coal refuge was assumed to be 94 pounds per cubic foot. During the construction of the Lower Refuge Dike in 1984, the average unit weight of the course coal refuge was 103 pounds per cubic foot. This value was used during the present analysis and it will be observed from Figure No. 2 that the static factor of safety was 1.8 compared to 1.9 during the 1983 analysis. The pseudostatic analysis applying horizontal force 0.1 g resulted in a factor of safety of 1.3.

Based upon the results of the stability analysis performed during this review, it is our opinion that the cross sections as shown on Sheet E9-3456 will be stable. It should be noted that the stability analyses were performed assuming a crest width of fifteen feet. If there are any questions regarding the information discussed above, please contact our office.

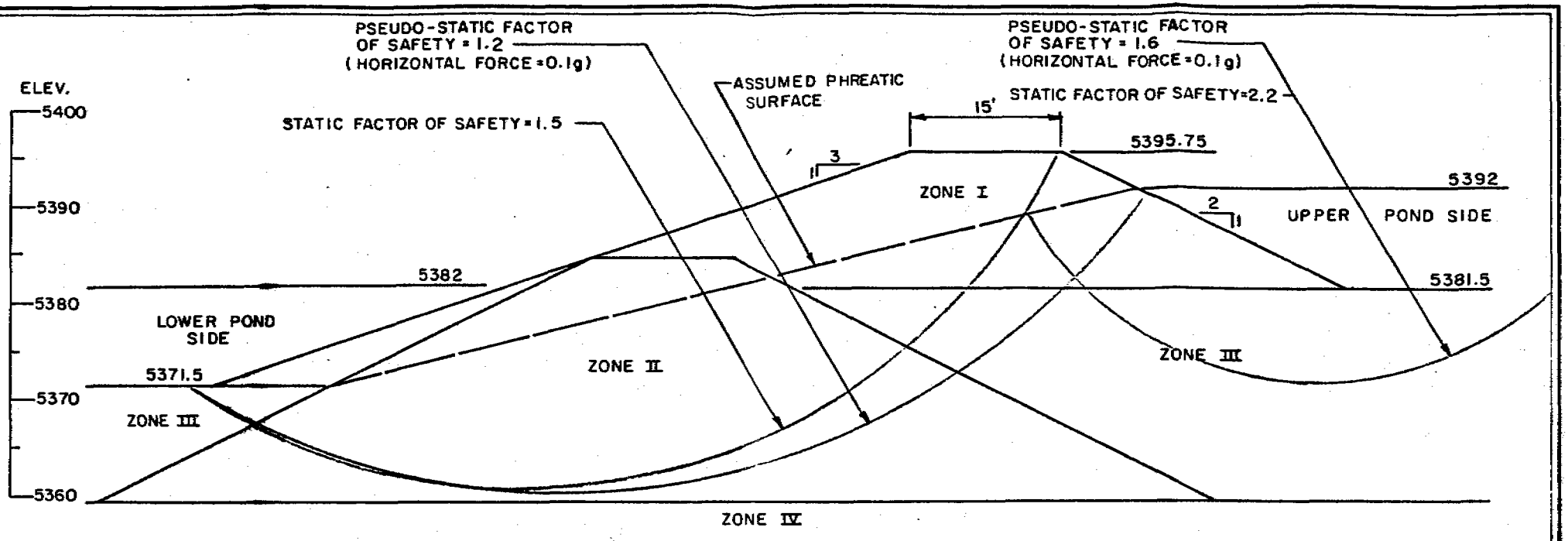
Sincerely,

ROLLINS, BROWN, AND GUNNELL

Ralph L. Rollins

Ralph L. Rollins

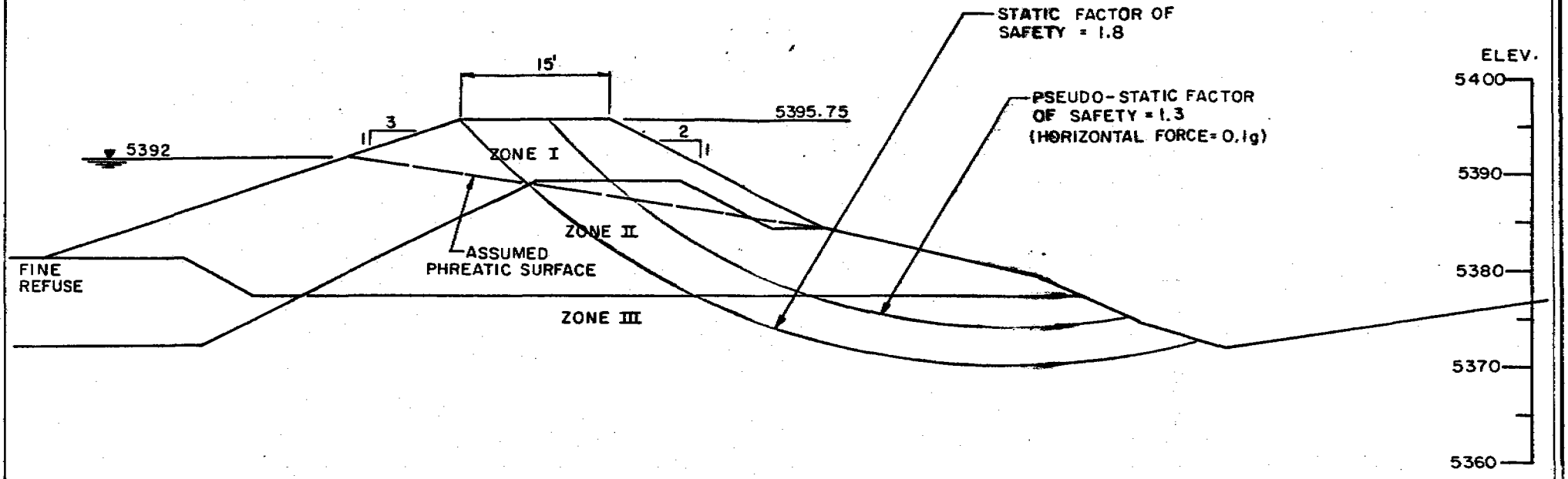
BP/jbt



ZONE	MATERIAL TYPE	TOTAL UNIT WEIGHT	SHEAR STRENGTH	
			COHESION P.S.F.	FRICTION ANGLE
I	COARSE REFUSE	103	100	33
II	EXISTING COARSE REFUSE	94	100	33
III	FINE COAL REFUSE	70	150	31
IV	SILTY CLAY	110	200	28

ROLLINS, BROWN AND GUNNELL, INC. PROFESSIONAL ENGINEERS	U.S. STEEL	UPPER REFUSE DIKE	STABILITY ANALYSIS

FIGURE NO. 1



ZONE	MATERIAL TYPE	TOTAL UNIT WEIGHT	SHEAR STRENGTH	
			COHESION P.S.F.	FRICTION ANGLE
I	COARSE COAL REFUSE	103	100	33
II	SILTY CLAY	110	250	28
III	SILTY CLAY	110	200	28

ROLLINS, BROWN AND GUNNELL, INC.
PROFESSIONAL ENGINEERS

U.S. STEEL

NORTH DIKE

STABILITY ANALYSIS

FIGURE NO. 2

Response to Rollins, Brown and Gunnell Review

Impoundment Modifications to Upper Refuse Dike and North Dike

U. S. Steel Mining Co. contracted with Rollins, Brown and Gunnell, Inc. to review the construction drawings and specifications for the proposed modifications to the Upper Refuse Dike and the North Dike. Section I of the review concerns the design drawings and Section II concerns the detailed construction specification. U. S. Steel Mining Co. is providing this response as a convenience to a reviewer to show that any concerns affecting the stability of the proposed structures have been adequately considered.

I. Construction Drawings

A. U. S. Steel Mining Co. will locate the center line of the two dikes in the field.

B.1. The keyway into the fine coal refuse referred to by Rollins, Brown and Gunnell is really a ditch adjacent to the North Dike. Therefore, these comments do not apply.

2. U. S. Steel Mining Co. elected to maintain the width of the proposed structures at 15 feet, not including the riprap. This will result in the stability safety factor for the impoundments being higher than estimated.

3. Details of the anti-seep collars are shown on Drawing E9-3435.

4. The concrete support will be similar to the one shown on E9-3435, except shorter since only two overflow pipes are used on the Upper Refuse Dike.

5. The recommended keyway has been added to the drawing.

C. Sheet E9-3457

The recommended cross-sections have been added.

II. Specifications

A. Item 411

This item is only relevant to U. S. Steel Mining Co. and will not affect the stability of the structure.

B. Item 702

The recommended change has been made to the construction specification.

C. Item 704

The recommended change has been made to the construction specification.

D. Item 802.3

The recommended change has been made to the construction specification.

E. Item 804

The recommended change has been made to the construction specification.

F. Item 811

U. S. Steel Mining Co. believes the task is adequately described for the Contractor. As a last resort, plugging would be considered.

G. Item 903

The details of the anti-seep collar are shown on E9-3435 which is provided as a part of the construction specification.

H. Items 904 and 905

U. S. Steel Mining Co. believes the walkway is adequately designed for the purpose intended. This will not affect the operation or stability of the structure.

I. Item 907

Item 907 is not inconsistent with Item 902 and this would be clear during a site visit to inspect the proposed work.

WELLINGTON COAL CLEANING PLANT

Refuse Sample Analysis

	Slurry Pond Fine Refuse	Slurry Pond Coarse Refuse	Refuse Pile Coarse Refuse
% Clay	<0.01	2.50	1.50
% Coal	91.40	86.90	<0.01
% Gravel	<0.01	<0.01	83.50
% Sand	5.20	8.40	2.50
% Silt	3.40	2.20	12.50
pH Initial Units	8.30	7.60	8.40
Acidity as $CaCO_3$ PPM	<0.01	<0.01	<0.01
Alkalinity as $CACO_3$ PPM	156	136	142
Calcium as Ca PPM	1,190.00	2,670.00	76.00
Conductivity mmhos/cm	900.00	860	250.00
Magnesium as Mg PPM	595.0	675.00	18.20
% Saturation	31.40	30.66	20.40
Sodium Absorption Ratio	12.414	2.306	33.973
Sodium as Na, PPM	2,100	515	1,270
Texture	Fine Coal	Fine Coal	Gravel
Total Dissolved Solids mg/l	12,660	10,680	7,040

APPENDIX E

GEOTECHNICAL INVESTIGATIONS

By

Rollins, Brown and Gunnell, Inc.

Technical Review No 1
Geotech Plan Review
6/15/87
JLD

From Tech Rev 1
July '83

Statement Relative to the Stability Procedures
Associated with the U.S. Steel Dikes

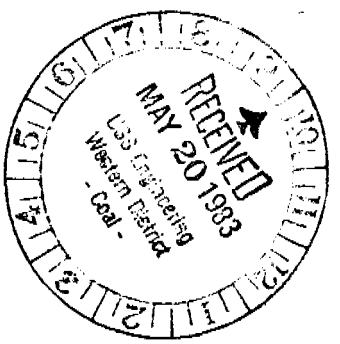
We certify that the stability analysis performed for the Lower Refuse Dike, the Upper Refuse Dike, and the North Dike have been performed in accordance with procedures acceptable in the engineering profession, and insofar as we can determine, the dikes will be stable for the side slopes recommended in our report dated March 1983.

Ralph L. Rollins, President
Rollins, Brown and Gunnell, Inc.

GEOTECHNICAL INVESTIGATIONS

U.S. STEEL SETTLING POND DIKES
WELLINGTON, UTAH

May 1983



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GEOTECHNICAL INVESTIGATION

US STEEL SETTLING POND DIKES
WELLINGTON, UTAH

March 1983

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APPENDIX F

FISH AND WILDLIFE

SMC 780.16 OR UMC 784.21; FISH AND WILDLIFE PLAN
WELLINGTON PREPARATION PLANT, U. S. STEEL CORPORATION

Mitigation and Impact Avoidance Procedures General to all Wildlife

Utah Division of Wildlife Resources provides the following recommendations in order to minimize disturbances and impacts on wildlife and their habitats that could be impacted during developmental, operational and reclamation operations at the Company's mining project. The recommendations address how enhancement of the wildlife resource and their habitats as discussed in UMC 783.20 can be achieved. They are also consistent with the performance standards of UMC 817.97. In instances where it would be necessary to restore or could be beneficial to enhance or develop high value habitats for fish and wildlife, recommended plant material and rates of application are provided as "Appendix B" (UMC 817.97 and UMC 817.111 through 817.117). This list should prove useful in meeting the additional requirements to be imposed upon the operator if the primary or secondary land use will be for wildlife habitats (UMC 817.97 d 9). Additionally, "Appendix C" represents a list of commercial sources for plant materials.

The project and adjacent areas are represented by three basic wildlife habitats which are inhabited on occasion and during different seasons of the year by about 246 species of vertebrate wildlife. The wildlife habitats and use areas for the "high interest" species from this group of wildlife have been ranked into four levels of importance. The most valuable to an individual species or ecological assemblage are the critical sites followed in respective importance by high-priority, substantial value and limited value sites. Each type of use area requires various and specific levels of protection from man's activities. Additionally, due to the variability of vegetation communities in each use area, various and specific technologies in site development will need to be evaluated for possible mitigations, enhancements of wildland habitats or the required level of reclamation. It is recommended that all land clearing impacts be designed so that irregular shaped openings are created in contrast to openings that would have straight edges.

It is recommended that the Company make significant efforts to educate all employees associated with their coal handling operation of the intricate values of the wildlife resource associated with the project and adjacent areas and the local area. Each employee should be advised not to unnecessarily or without proper permits harrass or take any wildlife. (Apprehension of wildlife violators has increased by nearly 250 percent during recent years in the region). It is especially important that wildlife not be harrassed during winter periods, breeding seasons and early in the rearing process. Exploration should be limited as much as possible during these crucial periods.

During breeding seasons, disturbance by man can negatively affect the number of breeding territories for some species of wildlife. Disturbance can also interrupt courtship displays andpreclude timely interactions between breeding animals. This could result in reduced reproductive success and ultimate reductions in population levels.

Early in the rearing process, young animals need the peace and tranquility normally afforded by remote wildlands. It is also during this crucial period that young animals gain the strength and ability to elude man and other predators. This allows the young animal to develop in relatively unstressed situations and to utilize habitats that are secure from predators. Disturbance by man can compromise this situation and result in abandonment of the young by the female, increased accidents that result in mortality to young animals or increased natural predation. It is recommended that employees be cautioned against disturbing young animals or females with young if accidentally located.

Employees associated with coal handling operations should be instructed that when wildlife are encountered during routine work that they not stop vehicles for viewing purposes. Moving traffic is less disturbing to wildlife than traffice that stops or results in out-of-the-vehicle activities. If viewing is desireable, the vehicle should only be slowed, but not stopped.

Hunting and other state and federal wildlife regulations must be adhered to by sportsmen utilizing the project area.

Mitigation and Impact Avoidance Procedures for Aquatic Wildlife

It is recommended that the Company allow their clean water storage pond to be developed into a warm water fishery. This enhancement action would be mitigation for other impacts associated with the Company's operation.

If ultimate operations are planned or occur that could physically or chemically impact any perennial stream beyond the impact of mere crossings, detailed reclamation plans will be required. Permanent culvert crossings exceeding a width of eight feet must have a natural bottom and devices for reducing stream velocity so that fish migration is not blocked. A reclamation plan for a stream would have to provide for measurement of the physical characters of the water prior to disturbance. Such measurements should consider surface water information required in SMC 779.16, data on stream velocity, gradient, width, depth, pool-riffle ratio and substrata types.

Reclamation that would achieve development of a stream channel similar in character to that which existed prior to disturbance should result in natural reestablishment of macroinvertebrates, macrophytes and a fish population. If merited, the Division could then introduce desired fishes into those waters. This would adequately mitigate for disturbance and temporary loss of aquatic resources. There would be no mitigation for displacement and possible loss of other wildlife species dependent upon the aquatic wildlife as a prey source. It is believed that impacts on such species would not be significant.

It is also recommended that adequate precautions be taken to keep all forms of coal or other sediments from being inadvertently deposited along or within perennial stream channels. Similar precautions should be taken to preclude deposition of coal particles or sediments in or along other drainages from which the material could be transported during a precipitation event into a perennial stream. This would include blow-coal from haulage trucks, railroads or other transportation systems and storage piles. Control of larger coal particles from the above sources is equally important to control of fugitive dust. If needed, haulage vessels or storage sites should be covered, or the surface of the coal appropriately sprayed in order to solidify it against wind movement. Travel speeds of haulage vessels could be reduced so that coal is not allowed to leave the transportation system. The impacts of coal or other sediments on aquatic ecosystems are many and varied; therefore, sediments must be kept out of those systems.

Utah Division of Wildlife Resources reaffirms all of the recommendations in UMC 817.41 through 817.57 and UMC 817.126 for protecting the State's waters and their associated riparian and wetland zones along with the aquatic wildlife resource.

Mitigation and Impact Avoidance Procedures for Terrestrial Habitats

It is recommended that all wetland and riparian habitats be maintained. Roads and other facility developments should not destroy or degrade these limited, highly productive and unique habitats. Roads crossing through those areas should do so in a manner that is least damaging to the habitat. Wetlands and riparian habitats are ranked as being of critical value and are the most productive sites in terms of heritage and biota produced as compared to other local habitat types. It is probable that a majority of the vertebrate wildlife that inhabit the project area make some use of riparian or wetland areas.

It is important to note that roads and other surface facilities to be constructed should as far as practicable be placed at sites where they will not compromise wildlife or their use areas. Also, surface facilities, including roads, should be screened if possible from wildlife use areas by vegetation or terrain.

In situations where wildland habitats have been or will be disturbed, reclamation is required. Also, there are sites where development or enhancement of wildland habitats through vegetation treatments and/or seedings and transplants of seedlings could benefit wildlife. "Appendix B" depicts the Divisions's recommendation for plant materials to be utilized for various wildlife habitats on wildland treatments that are intended to benefit wildlife. If circumstances arise where seed or seedling transplants for a recommended plant species are not available, suitable alternates are also recommended.

Seedling transplants from nursery stock as well as nearby rangelands would also be acceptable for some wildland treatments.

Appendix C represents an exhaustive list of commercial sources for plant materials for use in wildland treatments.

Temporary control of rodents may be required to ensure a successful rangeland treatment. It is recommended that the county agent be consulted in this area of concern. Poisoned oats are the most common and acceptable method for rodent control; however, only licensed persons may apply the treatment.

Currently, there are some new concepts in metholdology for revegetation that are being successfully implemented in other parts of the nation and world. One promising method is a procedure where a large scoop removes, from a natural and stabilized site, a small area of earth intact with vegetation and subsurface soils for placement on a site to be restored. This same procedure can be utilized when disturbing pristine sites, except that the native vegetation is stored for use in latent reclamation. Another meritorius method for stimulating natural revegetation, in combination with other reclamation techniques, is to plan facility developments so that islands of natural, native vegetation remain. This will allow for natural vegetation to spread from the islands. These techniques can also be useful for enhancement of poor quality sites that currently exist on the mine plan area.

Encapsulation of seed and fertilizer for several releases over a period of years after a single application is a new and possibly advantageous procedure. This technique along with soil stabilizing structures has been successfully used in South Africa. Dr. J. Van Wyk in the Department of Botany of Potchetstroom University in South Africa could provide additional information on this new technique.

There are also new specialized techniques coming to the forefront for stabilization of problem sites such as roadbanks and steep slopes. It is important that these sites be promptly and permanently revegetated in order to reduce siltation into local riverine systems. This will mitigate for damage to aquatic wildlife populations and habitats from siltation. Enhancement of existing problem sites or reclamation of disturbed sites can mitigate for salt loading of local river systems. It is believed that natural, nonpoint sources represent 50 percent of the salinity in the upper basin of the Colorado River system into which this mine plan area drains.

It is recommended the Company make numerous contacts with appropriate agencies, institutions and persons to ensure that enhancement or reclamation projects achieve the required degree of permanency, plant diversity, extent of cover and capability of regeneration to ensure plant succession. Generally speaking, seeding should be accomplished as late in the fall as possible. Seedling transplants need to be coordinated with local soil moisture conditions which are usually at optimum in the early spring just as the snow melts.

It is paramount that suitable vegetation be maintained and/or re-established if the life requirements of wildlife are to be satisfied in the postmining period. Success in this area of concern along with cessation of man's disturbances will likely result in a natural reinvasion and the resultant inhabitation by most wildlife species of an impacted site.

It is important to note that enhancement or reclamation projects that are to benefit wildlife must be properly designed so that all the life requirements of the target species are considered in conjunction with forage. Water must be provided or be present and thermal cover along with escape and hiding cover has to be in abundance. Loafing areas and travelways between the many types of use areas must also be provided. In order to meet these goals, a considerable degree of consultation will be required between the Company and Utah Division of Wildlife Resources.

As a service and also to ensure that the needs of wildlife are met, the various expertism within the Division of Wildlife Resources are available to the Company for consultation. For the most part, Larry Dalton, Resource Analyst, for the Southeastern Regional office at 455 West Railroad Avenue in Price, Utah 84501 (phone 637-3310) will coordinate any needed contacts. Richard Stevens, Wildlife Biologist, at the Great Basin Research Center, Box 704, in Ephraim, Utah 84627 (phone 283-4441) is available for consultation and site specific analysis concerning species for vegetation plantings, timing and techniques to achieve the best results.

In instances where revegetation projects are to be planned over coal waste areas, heavy metal uptake by the plants must be evaluated. It is recommended that the Company initiate an appropriate long-term monitoring program to determine the magnitude and resolutions, if needed, for this problem.

It is recommended that persistent pesticides not be utilized on the project area. Other alternate pesticides or forms of control should be utilized.

All hazards associated with the project operation should be fenced or covered to preclude use by wildlife; of special concern would be sites having potential to entrap animals or toxic materials.

Mitigation and Impact Avoidance Procedures for Amphibians and Reptiles

Enhancement or development of habitats that provides a diversity of vegetation will benefit amphibians and reptiles. It is important to note that all of these species are protected by Utah law. Due to the myriad of myths that surround these animals, it is urged that individual specimens not be destroyed. This is especially true for snakes since they are a valuable component of the ecosystem.

Snake dens are ranked as being of critical value to the population and are protected by law. If a den is located, it should be reported to the Utah Division of Wildlife Resources. Snake dens can be moved, but only with intensive efforts that may take a year or more (snakes are caught and removed in the spring and fall). Thus, construction of facility developments may take place in denning locations if there is sufficient lead time to relocate the occupants.

Mitigation and Impact Avoidance Procedure for Avifauna

It is recognizable that development and operation of a mining project will in some cases negatively impact many avian species through physical destruction of habitats and continual disturbance that makes other habitats unavailable or less desireable to an individual bird. It is also true that impacts that are negative to one species may be beneficial to another species. It is recommended that the Company plant native and/or ornamental berry producing shrubs around surface facilities. When mourning doves are a target species, sunflowers or blazing star should be planted. This will provide food and cover for many of the smaller species of birds, resulting in enhancement of their substantial value and high-priority habitats. This action would also mitigate for disturbances and destruction of avifauna habitats at other sites associated with project operations.

It is important to note that nests of all avifauna (except the house sparrow, starling and ferral pigeon) when active and their eggs are protected by federal (Federal Migratory Bird Treaty Act) or state laws (Utah Code 23-17-1 and 23-17-2). All avifauna utilize a nest during their reproductive process. Dependent upon the species, some nests are well developed while others may be represented by only a scrape on the ground. These sites when being utilized are critical to maintenance of individual bird populations; each species has a specific crucial time period in which the nest is occupied. It is during this crucial period that the nest must be protected from disturbance.

Riparian and wetland areas need to have complete protection from disturbance between mid-March and mid-June due to the crucial nesting season of waterfowl. Disturbance should be significantly limited from mid-June through mid-October in order to protect the high-priority habitat values for brooding, moulting and migrating waterfowl.

The integrity of agricultural lands associated with the project needs to be maintained or improved due to their critical value to waterfowl, pheasants and wildlife associated with or dependent upon the pasture and fields wildlife habitat.

Several species of raptors frequent the project area. Their nests when active should not be disturbed and abandoned stick nests are never to be damaged. Every effort should be made to eliminate man's disturbance within visual sight or one-half kilometer radius of an active raptor nest. This distance would have to be increased to a one-kilometer radius if the cause for disturbance were to originate within view and from above the nest. This effort is demanded in the instance of golden eagles and cliff nesting falcons since they are sensitive to disturbance and could abandon the nest. Termination of man's use of a site would not be required if eagles or

falcons constructed their nest after mining had been initiated, since it would demonstrate the individual bird's willingness to tolerate mining activities and the associated disturbance by man.

Roost trees for eagles, if located, must not be disturbed or destroyed. Similarly, activities planned for high-priority concentration areas of eagles must be designed and implemented so that they are not of significant disturbance to the birds.

As a general comment, whenever active raptor nests are observed or roost trees for eagles located, they need to be reported to the Utah Division of Wildlife Resources and the U. S. Fish and Wildlife Service.

Design and construction of all electrical power lines and other transmission facilities shall be designed in accordance with guidelines set forth in "Environmental Criteria for Electric Transmission System" published by the USDA and USDI in 1970 and/or the REA Bulletin 61-10 "Powerline Contacts by Eagles and Other Large Birds". It is also recommended that placement of utility poles over flat or rolling terrain be planned so that they are out of view of roads or at least 300 meters away from any roads. This will lessen opportunity for illegal killing of these valuable birds, since the poles can serve as suitable hunting perches for raptors. In some instances poles can result in an extension of raptor hunting territories, which would represent a beneficial impact.

Agricultural lands associated with the project should be maintained under traditional agricultural practices and not converted to other uses. These lands are of critical and high-priority value to avifauna and a myriad of other wildlife dependent upon agricultural systems.

Mature trees with natural cavities and dead snags need to be protected for use by cavity nesting birds. Trees with such a character are ranked as being of critical value to cavity nesting birds. The project should be planned so that three such trees are left standing per acre within 500 feet of water and two such trees per acre in dense riparian areas.

Mitigation and Impact Avoidance Procedures for Mammals

The lodges, nests and dens of all mammals or roosts in the instance of bat like mammals represent a critical use area for maintenance of their individual populations. The crucial period for any species is when the lodge, den, nest or roost is occupied. Therefore, such sites for any mammal must be protected from disturbance during that period when it is being utilized.

Many species of mammals develop food caches in order to carry individual animals or family groups through periods when they cannot forage. Such sites are of critical value to maintenance of their populations and if located should not be destroyed or subjected to regular disturbance by man.

It is important to realize that within natural ecosystems there exists a predator-prey relationship. One species of animal may represent a prey source for other species. Therefore, it is important that project operations be designed and implemented so as to not unnecessarily disturb or destroy any wildlife or their habitats.

Big game ungulates-mule deer and pronghorn antelope--each have seasonal use areas ranked as being of critical value to an individual herd. Such sites need to be protected from any of man's activities or developments that could result in destruction, loss or permanent occupancy of the site by man or has facility developments. If these types of impacts cannot be avoided the site must ultimately be reclaimed and revegetated. Also, critical valued areas need protection from disturbance during their appropriate crucial period.

High-priority valued use areas for all wildlife and particularly big game ungulates need to be protected from man's activities or facility developments. Actions that would result in loss or permanent occupancy of significant acreages (25 or more acres) of habitat are of special concern. In any event impacts to high-priority valued areas should be limited and ultimate reclamation planned. Many impacts can be avoided simply by precluding exploration, developmental or other activities during the period of time when a high interest specie is present.

Haulage of coal between the various mine projects and distribution points should be planned so that impacts to wildlife are lessened; of special concern is haulage of coal through wintering areas for big game. It is recommended that the Company develop coal haulage contracts that require personnel involved with coal haulage to use extreme caution so that accidental collisions between motor vehicles and big game are reduced. Without doubt, a reduction in speed across winter ranges would aleviate this problem during the period between November 1 and May 15 each year.

At present the most successful and cost effective technique for reducing deer-highway mortality is a system of warning reflectors. This system (manufactured by Strieter Corporation, 2100 Eighteenth Avenue, Rock Island Illinois 61201 and known as "Swareflex") is only of value at night time, but it is during darkness that most deer-highway mortality occurs. Strieter Corporation describes the effect of the reflector system as follows: "The headlights of approaching vehicles strike the wildlife reflectors which are installed on both sides of the road. Unnoticeable to the driver, these reflect red lights into the adjoining terrain and a optical warning fence is produced. Any approaching wildlife is (are) alerted and stops or returns to the safety of the countryside. Immediately after the vehicle has passed, the reflectors become inactive, thereby permitting the animals to cross safely."

Installation of a wildlife warning reflector system, a reduction in speed of coal-haulage trucks, when utilized, and other mine related traffic alongwith an increased awareness of wildlife values by mine associated employees should result in a reduction of deer-highway mortality problems. Such a reduction would represent satisfactory mitigation.

In instances where conveyors, slurry lines or any other structure having potential to be a barrier to big game movement is to be developed, passage structures must be provided. Generally speaking overpass and underpass type structures are recommended in order to allow passage of big game to habitats either side of any barrier. These crossings should be placed at the points to be identified from intensive study of big game movements in relation to the mine plan area. Such study would not be required if the structure was adequately elevated to allow uninhibited passage of big game along its entier length.

Underpasses should have a minimum clearance of three meters maintained across a span of at least five meters. Overpasses should be designed as a circular earthen ramp with the barrier bisecting the ramp into two equal halves as follows:

On either side of the conveyor a half-round ramp with a slope no greater than 3:1 on a five meters wide path placed at an angle 90 degrees to the conveyor and tapering around to a slope of 5:1 at paths adjacent and parallel to the conveyor. The platform over the conveyor should be concrete or some other material that would not echo when being crossed by big game and should be of character similar to rock or natural earth.

Soils associated with either crossing style should be of the A or B horizons to allow for development of vegetation. Vegetative cover must be established in association with all crossing sites. This will lessen anxiety of individual animals using the site through development of a natural appearing environment.

Mature pinion or juniper trees and an abundance of browse plants need to be placed proximal to crossing points in order to provide a safe travelway. The browse plants will also serve as a permanent attraction for big game to crossing points. Additionally, a mixture of grass and forb seeds should be broadcast over each crossing point to stabilize the soil and enhance the forage situation.

Appropriately sized boulders may need to be placed at crossing sites in order to control off-road vehicles utilized in outdoor recreation.

Industrial developments are encouraged on habitat use areas that are ranked as being of limited value to wildlife. It should be noted, however, that reclamation is ultimately expected on any wildlife use area, regardless of its value to wildlife.

UMC 783.20; FISH AND WILDLIFE RESOURCE INFORMATION
WELLINGTON PREPARATION PLANT, U.S. STEEL CORPORATION

General Wildlife Resource Information--All Species of Vertebrate Wildlife

The mine plan area encompasses a portion of the San Rafael Desert in Carbon County, Utah. This area drains into the Price River, which flows into the Green River and ultimately into the Colorado River and Lake Powell. Generally speaking, the San Rafael Desert is encompassed by cold desert (upper Sonoran life zone), submontane (Transition life zone) and montane (just portions of the lower Canadian life zone) ecological associations. These life zones could be inhabited on occasion and during different seasons of the year by about 264 species of vertebrate wildlife--15 fish species, 7 amphibian species, 15 reptile species, 235 bird species and 65 mammal species. It is interesting to note that 85 percent of these species are protected.

The mine plan area itself is represented by only the upper Sonoran life zone and may provide habitat for approximately 246 species of wildlife--5 fish species, 6 amphibian species, 15 reptile species, 176 bird species and 44 mammal species. Eighty-two of these species are of high interest to the State of Utah.

The Division Publication No. 78-16 "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah" is appended (Appendix A) to this report since it represents a low level of study for the wildlife species listed. It identifies those species having potential to inhabit the region as well as those inhabiting the environs of the mine plan area. Appendix A also identifies which species are considered to be of high interest for the habitats and local area represented.

High interest wildlife are defined as all game species; any economically important species; and any species of special aesthetic, scientific or educational significance. This definition would include all federally listed threatened and endangered species of wildlife.

A ranking and display of wildlife habitats and use areas relative to high interest species of vertebrate wildlife has been developed (Table 1 and 2 and the attached map). Critical wildlife use areas followed in respective importance by high-priority, substantial value and limited value wildlife use areas require various levels of protection from man's activities and developments. Wildlife habitats and use areas ranked as being of critical or high-priority value to wildlife should be protected from surface disturbance, subsidence impacts and human or industrial disturbance. This can be accomplished through development and implementation of a wildlife plan.

Critical wildlife use areas are "sensitive use areas" necessary to sustain the existence and perpetuation of one or more species of wildlife during crucial periods in their life cycles. These areas are restricted in area and lie within high-priority wildlife use areas. All stream sections, reservoirs, lakes and ponds identified by Utah Division of Wildlife Resources as Class 1 or 2 are classified as being critical. Biological intricacies dictate that significant disturbances cannot be tolerated by the members of an ecological assemblage on critical sites. Professional opinion is that disturbance to critical use areas or habitats will result in irreversible changes in species composition and/or biological productivity of an area.

High-priority wildlife use areas are "intensive use areas" for one or more species of wildlife. "Intensive use areas" are not restricted in area and in conjunction with limited value use areas form the substantial value distribution for a wildlife species. All stream sections, reservoirs, lakes and ponds identified by Utah Division of Wildlife Resources as Class 3 are classified as being of high-priority. In addition, wildlife use areas where surface disturbance or underground activities may result in subsidence that could interrupt underground aquifers and result in a potential for local loss of ground water and decreased flows in seeps and springs should be considered as being of high-priority to wildlife.

Substantial value wildlife use areas are "existence areas" for one or more species of wildlife. "Existence areas" represent a herd or population distribution and are formed by the merging of high-priority and limited value wildlife use areas for a species. All stream sections, reservoirs, lakes and ponds identified by Utah Division of Wildlife Resources as Class 4 are classified as being of substantial value.

Limited value wildlife use areas are "occasional use areas" for one or more species of wildlife. "Occasional use areas" are part of the substantial value wildlife use area for a species. All stream sections, reservoirs, lakes and ponds identified by Utah Division of Wildlife Resources as Class 5 or 6 are classified as being of limited value.

MAPPING

Vegetation and Wildlife Habitats

It is recommended that the Company's primary effort be placed on identifying species of vegetation in each wildlife habitat within the various wildlife use areas for purposes of reclamation. The Division does not have site specific information relative to vegetation types at the mine plan area. However, there are 3 wildlife habitats present--riparian or wetland types, desert scrub and agricultural areas. The Company should identify each of these habitat associations on appropriately scaled maps.

It is believed that if satisfactory reclamation is achieved and man's disturbance does not continue or become a factor, that most species of wildlife displaced from the mine plan area will return. Without doubt, the key to success for enhancing or restoring wildlands will be development of habitats so that the post-mining condition as compared to the premining condition will have similar species, frequency and distribution of permanent plants in each vegetative type. This will allow for natural plant succession. Additionally, other habitat features that represent the various life requirements for local wildlife must be provided.

Wildlife Use Areas

The enclosed map displays mapable, high value use areas for high interest wildlife on or adjacent to the mine plan area. This display includes stream sections and bodies of water, if any, utilized by high interest fish species. Also displayed are know seeps, springs, wetlands, and riparian zones. Note that there are high interest wildlife distributions that are so broad that they cover the entire map and therefore are not illustrated. However, all vertebrate species of high interest wildlife and their distributions are discussed in the following narrative.

Water

Due to demands of state and federal coal mining regulations, the Company will probably be required to identify and appropriately monitor all surface waters for potential impacts from subsidence. This information should be correllated with the wildlife use area information due to the value of water to wildlife.

FISH AND WILDLIFE INVENTORY

Aquatic Use Areas

Macrophytes

From a position of the aquatic wildlife resource it is believed that there is no practicality for information relative to macrophytes to be addressed by the mine permit application; such information is not generally available.

Macroinvertebrates

The results from studies of macroinvertebrates may be required for purposes of determining need for stream buffer zones (UMC 817.57) in stream sections supporting biological communities. Since the permit application does not identify any plans to impact the fishery or discharge of polluting effluents into local waters, no data relative to macroinvertebrates as a pollution index or a forage base for fishes or other predators dependant upon the aquatic resource need be presented.

Note, impact avoidance procedures that would protect the integrity of the aquatic resource need to be included with the mine permit application. Of importance would be facility designs that preclude impacts on streams or lakes and identification of procedures that will be utilized to keep any form of coal sediments or other pollution from entering Coal and Soldier Creeks which are tributary waters to the Price River. Snow removal can result in a significant contribution of sediments to local riverine systems. Deposition of coal particles in the aquatic system could have a variety of negative impacts on invertebrate and fish populations.

Studies relative to macroinvertebrates if desired or needed, must be conducted by a qualified, private consultant.

Fish Species Occurrance and Use Areas

Aquatic habitats associated with the mine plan area are known to support one specie of game (channel catfish) and one specie of non-game (speckled dace) fish; all of these species are protected. During spring run-off cutthroat trout, mottled sculpin and mountain sucker have been washed into the area. Of the permanent fish, only the channel catfish has been determined to be of high interest to Utah (Appendix A and reference the Division Publication No. 78-16).

The channel catfish is an introduced species. It annually spawns between June and July. Populations associated with the project are sustained through natural reproduction.

The spawning period represents a crucial period for maintenance of channel catfish populations. Spawning areas are ranked as being of critical value. Such areas are characterized by calm flat water or other protected zones that are somewhat deep. These zones must also provide a site where the fish can guard the eggs such as a hole or underwater debris. These physical parameters are necessary for optimum spawning success.

Once the catfish have spawned their eggs incubate for approximately 16 to 17 days--water temperatures ranging from 60 to 70 F. During this crucial period water temperature affects the rate of embryonic develop--the warmer the water the more quickly incubation is completed.

During winter all the catfish may migrate and concentrate in just a few deep holes; pools must be protected from siltation. Extreme fluxuations in stream flow will also negatively affect the fish in such pools; wherever practicable, maintenance of a constant flow of water during the winter period enhances survival.

Section 3 of the Price River is located on the mine plan area. It is ranked as being of limited value to Utah's fishery management program and is a Class 5 fishery. It supports yellowstone cutthroat trout, speckled dace, mountain sucker. mottled sculpin and channel catfish populations. It is important to note that the character of the Price River and water quality in Section 3 is such that cutthroat trout, mountain sucker and mottled sculpin cannot maintain viable populations. Probably during the spring run-off these fish are washed down to this section from upstream areas. Channel catfish and speckled dace naturally maintain their populations in the Price River. A catfish population also survives within the Company's clean water storage pond.

Soldier Creek, a portion of which lies in the mine plan area. is of no value to Utah's fishery management program. It may support a viable population of speckled dace, since it flows into Coal Creek. It is important to note that Soldier Creek has not been inventoried.

Section 1 of Coal Creek is ranked as being of limited value to Utah's fishery management program; it is a Class 5 fishery. It supports a viable population of speckled dace that have moved upstream from the Price River.

If project operations are planned or develop that would alter, destroy or discharge polluting effluents into any perennial waters, appropriate state and federal permits, a mitigation plan and results from high level studies of the game fishery would be required of the Company. Achievement of mitigation would demand detailed studies of stream velocity correlated to flow, representatives of the stream channel profile, gradient, pool-riffle ratio, substrata types identifying percent representation of each type and surface water information required for SMC 779.16.

If modification of flows is anticipated, instream flow requirements must be considered to meet the needs of the existing fisheries, "biological community" and maintenance of existing riparian or wetland zones. Such base line information would allow for development of mitigation or reclamation plans that would allow for avoidance, lessening or mitigation of impacts to the fishery and maintenance or re-establishment of unique habitat types. This base line information is not generally available and would necessitate the services of a qualified private consultant and/or contracting Utah's Division of Wildlife Resources since special permits would be required.

It is important to note that no species of fish having relative abundances so low as to have caused them to be federally listed as threatened or endangered inhabit the mine plan or adjacent areas. The endangered humpback chub, bonytail chub and Colorado squawfish inhabit the Green and Colorado Rivers. Additionally, the humpback (razorback) sucker also inhabits those rivers; it is likely that this species will one day be federally listed as threatened. It is not believed that implementation and operation of the Company's project will impact any of these species.

Terrestrial Use Areas

Wildlife Habitat Types

Of the three wildlife habitat types present on the mine plan area wetland and riparian habitats are ranked as being of critical value to all wildlife. These habitats are normally associated with drainage bottoms (ephemeral or intermittent), or perennial streams (UMC 700.5), seeps and springs within the upper Sonoran life zone. When compared to all other wildlife habitats the aforementioned situation is considered to represent unique habitat associations (Table 1).

Riparian and wetland areas are highly productive in terms of herbage produced and use by wildlife as compared to surrounding areas. Experience has shown that as much as 70 percent of a local wildlife population are dependent upon riparian zones. Riparian or wetland habitat must be identified in the permit application and protected due to its high value for all wildlife.

Quantitative (acreage) and qualitative (condition, successional stage and trend) data concerning the wildlife habitats in each ecological association should be included as part of the mine permit application.

Amphibians--Species Occurrence and Use Areas

Seven species of amphibians, all of which are protected, are known to inhabit the biogeographic area in which the mine plan and adjacent areas are located. It is probable that six of these species inhabit the project area (reference the Division Publication No. 78-16). Only one specie of amphibian inhabiting the project area has been determined to be of high interest to the State of Utah (Appendix A).

The tiger salamander is a yearlong resident animal of the project area. The substantial value use area for the adult form is represented by any moist underground site or any similar habitat such as inside rotten logs, cellars or animal burrows. Such sites can be found within any wildlife habitat in the cold desert (upper Sonoran life zone) ecological association. The larva form, often referred to as a mud-puppy, is a gilled animal that must remain in water. It is interesting to note that the larva may fail to transform into an adult, even after their second season, and they can breed in the larva condition.

Once the larva is transformed into the adult form the animal is primarily terrestrial. Salamanders do migrate to water in the spring for breeding and may remain there during much of the summer. Such an intensive use area would be ranked as being of high-priority value to the animal. In September the newly transformed animals leave the water to find suitable places to spend the winter.

The tiger salamander breeds from March through June and is sexually mature after one year. The male deposits a small tent-shaped structure containing a myriad of sperm on the pool bottom. During courtship the female picks up this structure in her cloaca; then the eggs are fertilized internally before or just at the time they are laid. The eggs, singularly or in small clusters, adhere to submerged vegetation; after 10 to 12 days they hatch. Obviously, a critical period for maintenance of the population is when breeding salamanders eggs or their larva are inhabiting a water.

Post-embryonic development of a salamander's larval form progresses at a pace somewhat controlled by water temperature; in some cold waters the larva may not transform into an adult and drying up of a pool may hasten the process.

Migration to or from water usually occurs at night, during or just after a rain storm. When inhabiting terrestrial sites the tiger salamander is most active at night, particularly on rainy nights, from March through September.

Larva, when small feed on aquatic invertebrates and become predacious to the point of cannibalism when they are larger. Food items for adults include insects, earthworms and occasionally small vertebrates.

No amphibians have relative abundances that are so low to have caused the animal to be federally listed as a threatened or endangered species.

Reptiles--Species Occurrence and Use Areas

Fifteen species of reptiles, all of which are protected, are known to inhabit the biogeographic area in which the mine plan and adjacent areas are located. It is probable that all of these species inhabit the project area (Reference the Division Publication No. 78-16). None of the species of reptiles inhabiting the project area have been determined to be of high interest to the State of Utah (Appendix A).

To date snake dens, which are protected and of critical value to snake populations, have not been identified on or adjacent to the project area. It is important to note that inventory for such has not been attempted. If the Company at some later time discovers a den it should be reported to the Utah Division of Wildlife Resources. If a den(s) is currently known, its location must be included with the permit application.

No reptiles have relative abundances that are so low to have caused the animal to be federally listed as a threatened or endangered species.

Birds--Species Occurrence and Use Areas

Two hundred thirty-five species of birds, all of which are protected, are known to inhabit the biogeographic area in which the mine plan and adjacent areas are located. It is probable that one hundred seventy-six of these species inhabit the project area (Reference the Division Publication No. 78-16). Sixty-five species of the birds inhabiting the project area have been determined to be of high interest to the State of Utah (Appendix A).

The western grebe, white pelican and double-crested cormorant are all summer residents of the project area. To date, none of these species are known to nest on the project area. Their use seems to be limited to feeding on fishes associated with the project area.

The great blue heron is a yearlong resident of the environs associated with the project. The bird's substantial valued use area is always associated with open water where it feeds on aquatic wildlife. The great blue heron normally nests in rookeries that are often coinhabited by snowy egrets and black-crowned night herons. The nest may be placed high in a tree along a lake or stream edge, however, they will nest on the ground. To date, no rookeries are known on the project area. The rookery is ranked as being of critical value to herons; it is normally a traditional site and utilized year after year by a nesting colony. It is important to note that rookeries are abandoned if they become vulnerable to predation or experience continual disturbance.

Both adult great blue herons participate in the incubation and rearing process. Three to five eggs are laid with a two or three day period between deposition of each egg. Incubation of each egg lasts about eighteen days; afterwhich the nestlings remain in the nest for about sixty days. This period is crucial to survival of the heron population.

Swans, geese and ducks commonly known as waterfowl are represented by twenty-five species that may on occasion or during different seasons of the year inhabit the mine plan area. All of these species are of high interest to the State of Utah (Appendix A). Generally speaking, the riparian and wetland habitats encompassed by the project and adjacent areas provide substantial valued habitats for waterfowl. Each species has different life requirements and makes various uses of the riparian and wetland environs associated with the project.

For those waterfowl that nest locally, the period March 15 through July 15 is ranked as being of crucial value to maintenance of the population. Following incubation, which dependent upon the species, may vary between 20 and 28 days and extend up until mid-August, the riparian and wetland habitats represent a high-priority brooding area. Additionally, the wetland habitat (large open water areas or dense marshland) is of high-priority for seclusion and protection of adult waterfowl during their flightless period when they moult. Males may begin the moult in early June and both sexes and the young are capable of flight by mid-August.

It is important to note that agricultural lands producing corn or other small grain crops are of critical value to geese and dabbling duck species on a yearlong basis. All wetlands and open water areas can become locally important as high-priority use areas for waterfowl during peak migration periods in the spring (March 15 through May 15) and fall (August 15 through October 15).

The project and adjacent areas provides substantial valued habitat for a multitude of raptors--turkey vulture, bald and golden eagles, five species of falcons (prairie, American peregrine and arctic peregrine falcons; Merlin and American kestrel), seven species of hawks (sharp-shinned, Cooper's, red-tailed, Swainson's, rough-legged, ferruginous and marsh hawks) and six species of owls (barn, screech, great horned, burrowing, long-eared and short-eared owls). Many of these species are of high federal interest pursuant to 43 CFR, 3461.1 (n-1). All of these species are of high interest to the State of Utah (Appendix A).

Realistically, nesting habitat does not exist on the project or adjacent areas for most of these species. However, if a species were to nest on or adjacent to the project area, it would have a specific crucial period during which the aerie would need protection from disturbance; this period of time lies between February 1 and August 15. Generally speaking, aeries represent a critical valued site and need protection from significant or continual disturbance within a one-half kilometer radius of the nest. This consideration need only be implemented during the period of time that the nest is occupied. Species specific protective stipulations for aeries are available from the Utah Division of Wildlife Resources and the U. S. Fish and Wildlife Service.

The current level of data relative to site specific use of the area by raptors is unsatisfactory. Likely, there are aeries that have not been identified. Many of these species are highly sensative to man's disturbances. Therefore if additional disturbance is planned, it is recommended that intensive surveys be initiated on the mine plan and adjacent areas for determination of locations for raptor aerie territories. Such data needs to be collected within one-half kilometer radius of planned surface disturbed areas and must be merged with information provided within this report.

Golden eagles are a common yearlong resident of the mine plan area. There are no active aerie territories associated with the project. (Note, an aerie territory is utilized by one pair of eagles but may contain several nest sites.)

If at sometime a golden eagle developed a nest on the project area, the aerie would be extremely sensative to disturbance within a one-half kilometer radius. This buffer zone is ranked as being of critical value to maintenance of the eagle population when the bird is actually utilizing the aerie; that period of time is normally between April 51 and June 15. The radius for a buffer zone may need to be increased to one kilometer if a disturbance were to originate from above and within direct line of sight to the eagle aerie.

To date there are no known high-priority concentration areas or critical roost trees for golden eagles on the project area. The mine plan and adjacent areas have been ranked as being of substantial value to golden eagles.

The northern bald eagle is an endangered winter resident (November 15 to March 15) of the local area. To date there are no known high-priority concentration areas or critical roost trees for this species on or adjacent to the project. The mine plan area has been ranked as being of substantial value to wintering bald eagles. Note that no bald eagles are known to nest in Utah, however, historic data documents nesting activity by these birds in the State. There is no known historic evidence of the northern bald eagle nesting on the mine plan or adjacent areas.

The American peregrine falcon (status is endangered) and the prairie falcon (status is common) are yearlong residents of the mine plan and adjacent areas. Each of these species utilized cliff nesting sites, of which there are none on the project area. Thus, the project area has been ranked as being of substantial value to these two cliff nesting falcons.

For each falcon their aerie site while being utilized and a one-half kilometer radius would be ranked as being of critical value to maintenance of their populations. The falcon's period of use at the aerie site spans the spring and early summer period--prairie falcon, April 15 to June 30; peregrine falcon, March 1 to June 30.

The endangered arctic peregrine falcon is a winter resident (November 15 through March 15) of the local area. This species has not been observed to utilize the environs on or adjacent to the mine plan area, however, its occasional presence would not be unlikely. Therefore, the project area is ranked as being of limited value to this species.

Agricultural areas riparian or wetland areas and adjoining wildlands associated with the project and adjacent areas provide yearlong, substantial valued habitats for California quail and ring-necked pheasants. Due to the pheasants complete dependency on agricultural systems, all cultivated fields are ranked as being of critical importance to this species. For quail the agricultural and associated riparian habitats are ranked as being of high-priority value. Pheasants depend primarily on waste grain, corn and other crops for food. Quail also utilize this source of food. Both birds utilize wild grains and insects to a lesser extent. Croplands can provide for all the life requirements of pheasants and croplands in combination with riparian habitats can do the same for quail. High quality habitat must retain adequate cover and food for the birds use throughout the year.

Pheasants and quail initiate nesting as early as mid-April and continue into mid-July. This period of time and successful nesting activities is of crucial importance to the maintenance of their populations.

Sandhill cranes, Virginia and sora rails, American coot, snowy plover, common snipe, long billed curlew and willet all make some use of the project area. The quality of habitats associated with the project only allows nesting by the American coot. Comments provided earlier for waterfowl also apply to the coot.

Mourning doves normally inhabit the project and adjacent areas, which represents a substantial valued use area for these birds, between May 1 and September 15 each year. They nest throughout most of this period and each pair produces two clutches. The riparian habitats are ranked as being of high-priority value for nesting. Locally, mourning doves show two peaks in on-nest activity--early July and early August. Successful nesting activities and any water sources are critical to maintenance of the mourning dove population.

The yellow-billed cuckoo is a summer resident of the project area. This bird only nests in the riparian wildlife habitat, therefore. such areas are of critical value to maintenance of this species. Little is known concerning the yellow-billed cuckoo. Its nest is represented by a frail, saucer shaped structure of twigs and is always placed in bush or tree.

The belted kingfisher is a yearlong resident of the project area. It is found only along riverine systems which represent its substantial value use area. Therefore, the riparian wildlife habitat represents a high-priority valued use area for this bird. It feeds exclusively upon fish. The kingfisher's nest is always secreted within a burrow along stream banks, thus, dirt bank habitats along riparian areas are of critical value to this bird.

The Lewis woodpecker is a specie having high federal interest pursuant to 43 CFR 3461.1 (n-1). Its substantial valued use area is represented by riparian habitats characterized by cottonwood stands. Such habitats do exist on the project site. However, it is important to note that the Lewis woodpecker has never been documented to utilize the environs of the biogeographic area that surrounds the project site. In areas of the State where the bird is known to exist, it is a summer resident or only a transient. Its relative abundance is unknown.

The western bluebird is an uncommon summer resident known to inhabit the environs of the biogeographic area that surrounds the project site. In contrast the mountain bluebird is a common yearlong resident of the area. Both birds are cavity nesting species and when nesting utilize habitats higher in elevation and different in character than those associated with the project. During winter both species show elevational and longitudinal migrations; they then utilize all habitats associated with the cold desert ecological association. Therefore, the project area during winter represents a substantial valued use area for each bluebird species. It is important to note that trees with cavities located on the project area can be of critical value to survival of individual bluebirds during severe periods in winter.

Scott's oriole is also a species having high federal interest pursuant to 43 CFR 3461.1 (n-1). Its substantial valued use areas are riparian habitats characterized by cottonwood stands. Normally this bird is found within riparian zones associated with the continum of habitats extending from the pinion-juniper forest into shrublands of the submontane ecological association. The project site is somewhat lower in elevation than the zone that supports pinion-juniper forest. The oriole's nest is characterized as a grassy pouch and is hung in a tree. It is important to note that the Scott's oriole has never been documented to utilize the environs of the biogeographic area that surrounds the project site. In areas of the State where it is known to exist, it is a summer resident with a relative abundance considered to be uncommon.

The grasshopper sparrow is a rare transient species known to inhabit the environs of the biogeographic area that surrounds the project site. It only frequents dry grassland areas in the desert scrub habitat of the cold desert ecological association during spring and fall migration periods. The project area provides such habitats. Since the grasshopper sparrow's use of such sites is best described as "occasional", those habitats in the region are only ranked as being of limited value to the bird.

Mammals--Species Occurrence and Use Areas

Sixty-five species of mammals, of which 18 percent are protected, are known to inhabit the biogeographic area in which the project and adjacent areas are located. It is probable that forty-four of these species inhabit the project area (Reference the Division Publication No. 78-16). Thirteen species of the mammals inhabiting the project area have been determined to be of high interest to the State of Utah (Appendix A).

The red bat is a summer resident of the biogeographic area that surrounds the project site. The animal roosts in wooded areas (riparian woods and pinion-juniper forests) of possibly the cold desert and certainly the submontane ecological associations. Such areas represent this animals substantial valued use area. An occasional individual has been known to utilize caves; those individuals could hibernate and remain over winter.

The desert cottontail rabbit is a yearlong resident of the biogeographic area that surrounds the project site. The entire project area represents a substantial valued use area for cottontails. Their young are born between April and July. This is a crucial period for maintenance of the cottontail population.

Beaver are yearlong inhabitants the biogeographic area that surrounds the project site. Their substantial valued use area on the project site is restricted to riparian habitats. These animals construct a conical shaped lodge in which a family group lives throughout the year. Some burrow into banks along rivers to develop a lodge. The lodge is of critical value to maintenance of the beaver population. One litter of kits is produced each year; they are born between late April and early July after a gestation period of 128 days. Kits and yearlings coinhabit the lodge with the adult pair. When they attain 2 years of age they are forced to leave; females can breed at 2.5 years of age. Due to the animals dependency upon flowing water and the associated riparian vegetation, the riparian wildlife habitat is ranked as being of critical value to beaver populations.

The red fox and kit fox are yearlong inhabitants of the biogeographic area that surrounds the project site. The substantial valued use area for both foxes would include all wildlife habitats within the cold desert ecological association. Almost nothing is known of their population dynamics. Without doubt a crucial period for both species is when they are caring for young in the den. Dens while being inhabited are a critical use area.

The gray wolf is a historic inhabitant of the biogeographic area that surrounds the project site. Currently its relative abundance is so low that the animal is listed as endangered with extinction. The wolf's substantial valued use area would be represented by any remote habitat in any ecological association. It is unlikely that the project site provides this situation.

Many of the members of the family mustelidae are known to inhabit the biogeographic area that surrounds the project site. They are all protected and classified as furbearers--long-tailed weasles, black-footed ferret, badger, striped and spotted skunks. Additionally, raccoon and muskrat, although not furbearers, are also inhabitants of the biogeographic area that surrounds the project site. All of these species are of high interest due to their value in the fur market.

The substantial valued use area for weasles, muskrat and raccoons is the riparian habitat. Weasles, which are inhabitants of the project site, do make some use of other habitats that are proximal to riparian zones. Muskrats and raccoons are restricted to riparian habitats of the cold desert ecological association.

The balck-footed ferret is a species primarily dependent upon prairie dogs as a prey source. Currently, the ferret's relative abundance is so low that the animal is endangered with extinction. Utah lies on the western edge of the black-footed ferrets historic range. The substantial value use for this specie is restricted to prairie dog colonies. Prairie dog colonies are found within a multitude of wildlife habitats within the cold desert, submontane and montane (Canadian life zone) ecological associations. It should be noted that the project site does provide habitat for prairie dogs. If new surface disturbed areas are planned that would impact prairie dog colonies high level studies of this resource (prairie dog/ferret relationship) would need to be provided by the Company.

The substantial valued use area for badger and skunks span all wildlife habitats in the cold desert ecological association. Skunks show some afinity for habitats proximal to water. Skunks and badgers are dependent upon a suitable prey source.

A crucial period for maintenance of all furbearers, raccoons and muskrat populations is when they have young in a nest, den or lodge. Such sites are critical for reproductive success.

Mule deer are inhabitants of the biogeographic area that surrounds the project site. Their substantial valued use area spans all wildlife habitats within the cold desert ecological association. On the project site deer do not show an altitudinal migration in response to winter conditions. They reside at the project site on a yearlong basis.

All habitats on theproject site except riparian habitat, represent limited valued, yearlong range for mule deer herd Unit 29. The riparian habitats are all ranked as being of critical value to that herd unit.

Mule deer fawn during the month of June. The riparian habitats unquestionably represent the fawning area. All riparian areas are of critical value for fawning and maintenance of a desert deer population. It is important to note that June represents a crucial period for maintenance of deer populations.

Agriculture areas nearby to the project area are utilized yearlong by mule deer.

Pronghorn antelope representing the Icelander herd are inhabitants of the biogeographic area that surrounds the project site. Their substantial valued use area spans all wildlife habitats except urban and park areas in the cold desert and extends up into the pinion-juniper forest of the submontane ecological association. In some situations antelope show longitudinal migrations in response to winter conditions. There are, however, habitats where antelope reside on a yearlong basis.

During winter and at times of severe snow conditions the portion of the range inhabited by antelope is ranked as being of critical value. During such a crucial period antelope must be protected from man's disturbance.

Within the yearlong range all riparian habitats are ranked as being of critical value to antelope.

Antelope kid during the month of June. This activity takes place in the area they happen to be when the time for birth occurs. The doe secrets herself from disturbance and predators and drops her kid. The young animal is capable of following the female in a few hours. Protection of the kid antelope from disturance during the first day following birth is critical for maintenance of antelope populations.

Currently, there are no other known high interest wildlife species or their habitat use areas on or adjacent to the project area. It is not unreasonable to suspect that in the future, some additional species of wildlife may become of high interest to the local area, Utah or the Nation. If such is the case, the required periodic updates of project permits and reclamation plans can be adjusted and appropriate recommendations made.

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 28, 1985

Mr. Glenn H. Sides
General Manager
U. S. Steel Mining Co.
P. O. Box AE
Paonia, Colorado 81428

Dear Mr. Sides:

Re: Stipulation UMC 817.48-(1)-DD, Wellington Preparation Plant, ACT/007/012, Folder No. 2 & 4, Carbon County, Utah

The Division has reviewed the revised chemical analysis, submitted by U. S. Steel Mining Company in response to Stipulation UMC 817.48-(1)-DD to Final Permit Approval. The chemical analysis submitted by U. S. Steel Company satisfactorily identifies minimal levels for acid and toxic-forming material in the coal processed at the Wellington Preparation Plant.

The Division will expect to receive an analysis of coal for each seam to be mined on an annual basis or earlier if the quality of coal degrades.

U. S. Steel Mining Company has now satisfactorily responded to all permit stipulations. Thank you for your cooperation.

Sincerely,

L. P. Braxton

L. P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

SCL:jvb
cc: D. Darby
S. Linner
0028R-25

WESTERN DISTRICT

U. S. Steel
Mining Co., Inc.
a Subsidiary of United States Steel Corporation

P.O. BOX AE
PAONIA, COLORADO 81428
303/527-4816

April 18, 1985

State of Utah
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

ATTN: L. P. Braxton
Administrator
Mineral Resource Development and
Reclamation Program

Dear Mr. Braxton:

The chemical analysis for the coal seam at Somerset Mine has been revised per your request and is attached.

Sincerely,

G. H. Sides
General Manager

GHS/kb

Enclosure

cc: L. King
B. A. Filas
V. R. Watts
EC File

COAL SAMPLE ANALYSIS

Mine: Somerset Mine

Coal Seam: B-2

Type of Sample: Composite Coal Sample 12/6 - 12/13/84
Taken at Wellington Coal Cleaning Plant

Analyzed by: Ford Chemical Laboratory
Certificate of Analysis 85-005027

RESULTS

Acidity as CaCo3 PPM	<.10
Alkalinity as CaCO3 PPM	11,400
Aluminum as Al PPM SM303C	66.000
Arsenic as As Tot. PPM Sm304	.027
Barium as Ba (Tot) PPM SM303C	5.60
Boron as B PPM	2.160
Cadmium as Cd Tot. PPM SM304	.020
Chromium as Cr Tot. PPM SM303A	<.001
Conductivity umhos/cm SM205	410
Copper as Cu (Tot) PPM SMS03	.002
Iron as Fe (Tot) PPM SM303A	1.90
Lead, Pb (Tot) PPM SM303A	1.158
Manganese Mn Tot. PPM SM303A	.20
Marcasite %	.01
Mercury as Hs PPM SM320A	<.0002
Molybdenum as Mo PPM SM303C	.05
Nickel as Ni (Tot) PPM SM303A	.10
Organic Sulfur % ASTM D2492	.30
Pyritic Sulfur %	.130
Selenium as Se Tot PPM SM304	<.001
Total Combustable Solids %	85.3
Total Dis. Solids mg/l SM209B	268
Zinc as Zn (Tot) PPM SM303A	.436
pH Units SM423	9.50

APPENDIX I

Hydrologic Resources, Probable Hydrologic Consequences and Hydrologic Monitoring Associated with the Wellington Prep Plant

surface waters in the vicinity of the prep. plant there is little possibility that surface runoff from the site will contaminate the Price River or the ephemeral streams.

On the slurry pond side of the river several small first order drainages run into the refuse ponds. The only second or third order drainage, potentially in contact with the refuse ponds, is diverted around the ponds via the north diversion ditch. The specifications for the ditch can be found in Appendix E to the ORP.

It should be noted that the ephemeral drainage diverted around the refuse ponds via the north diversion ditch mingles with intercepted seepage from irrigation return flow from the north and seepage from the upper refuse impoundment to the south. Therefore, the opportunity exists for the diverted ephemeral drainage to be contaminated by the refuse pond seepage and for this contaminated water to enter the Price River.

In summary, the potential for contaminated surface water to leave the areas involved with the prep. plant is limited to the north diversion ditch because of the refuse pond seepage that comingles with the diverted ephemeral flow and irrigation return flow that also passes down the ditch. The Price River is the surface water resource that receives the contaminated waters. The impact of this lower quality water leaving the site and the appropriate monitoring of this contamination source is discussed in Chapters 3 and 4 respectively.

Ground Water Resources

Before discussing the ground water resources present in the adjacent area of the prep. plant it is appropriate to discuss the

APPENDIX J

REVEGETATION PLAN

REVEGETATION PLAN

The following revegetation plan has been prepared from the recommendations contained within the "Vegetation and Reclamation of the Wellington Coal Cleaning Plant" report prepared by Mt. Nebo Scientific.

Refuse Area - East of Price River

Upper Refuse Pond

It is anticipated that at the time of final reclamation the coarse slurry material (primarily minus 1.25 inch shale) will completely cover the Upper Refuse Pond, refer to Map E9-3342. No toxic salt levels were evident in this material from the soil testing program (see soil sample No. 6WD). A six inch layer of topsoil will be applied to cover the refuse material.

Map E9-3342 shows that the coarse slurry material covers the maximum pond elevation (approximately 5402) from 3 feet to over 35 feet deep. This will provide an adequate layer of coarse material to use as a capillary break against salt migration. Exhibit IA presents an estimated balance of refuse material. It should be noted that the volumes shown on Exhibit IA may vary substantially with production, yield, and underground mining conditions. The area of the Upper Refuse Pond is nominally 65 acres. The volume of refuse shown on Exhibit IA would cover that area to an average depth of 16 feet.

Lower Refuse Pond

The Lower Refuse Pond is expected to remain in active service until the time of final reclamation. A 12 inch layer of coarse slurry material (minus 1.25 inch) from the Upper Refuse Pond area will be distributed over the pond sediments. This layer of coarser material should significantly reduce any upward migration of the soluable salts by capillary action. A six inch layer of topsoil will be distributed on top of the coarse slurry material.

Mechanical Treatment of Soils

The soils will be mechanically treated by pitting to reduce erosion and increase infiltration of available moisture. This treatment may also help to control the salt concentration problem in the Lower Refuse Pond.

Mulching

Straw mulch will be applied to the entire area at a rate of 2,000 pounds per acre and anchored to the soils with a mulch crimper. The application of mulch will serve to decrease evaporatio and increase infiltration of available moisture.

Fertilizer

Soil analysis results indicated nutrient deficiencies in many of the soils to be used for reclamation. The vegetation study contained in Appendix H of the ORP recommended application of fertilizer at the rate of 80 lbs. of nitrogen and 60-80 lbs. of phosphorus per acre. This will be used at present as an estimated application rate for the reclamation plan. The amount of fertilizer to be applied will be determined from soil samples at the time of reclamation. Refer to the Topsoil Handling Plan (Appendix K), Nutrients and Amendments.

Seeding and Planting

Topsoil distribution and final seedbed preparation will be completed as close to the time of planting and seeding as is practical. Seeding of this area will be by broadcast methods (see Table 17 - Appendix H) during the month of October (approximate). This timing should avoid precocious fall germination, overcome seed dormancy, take advantage of spring snow melt and minimize predation by seed collecting animals.

Coarse Refuse Pile - West of Price River

The refuse pile will be graded to the final contours for reclamation. A 12 inch layer of topsoil will be disturbed over the surface of the refuse pile.

Mechanical Treatment of Soils

The soils will be mechanically treated by pitting to reduce erosion and increase infiltration of available moisture. This treatment may also help to control the salt concentration problem in the Lower Refuse Pond.

Mulching

Straw mulch will be applied to the entire area at a rate of 2,000 pounds per acre and anchored to the soils with a mulch crimper. The application of mulch will serve to decrease evaporation and increase infiltration of available moisture.

Fertilizer

Soil analysis results indicated nutrient deficiencies in many of the soils to be used for reclamation. The Vegetation Study contained in Appendix H of the ORP recommended application of fertilizer at the rate of 80lbs of nitrogen and 60-80 lbs of phosphorus per acre. This will be used at present as an estimated application rate for the Reclamation Plan. The amount of fertilizer

to be applied will be determined from soil samples at the time of reclamation. Refer to the Topsoil Handling Plan (Appendix II), Nutrients and Amendments.

Seeding and Planting

Topsoil distribution and final seedbed preparation will be completed as close to the time of planting and seeding as is practical. Seeding of this area will be by broadcast methods (see Table 16 - Appendix H) during the month of October (approximate). This timing should avoid precocious fall germination, overcome seed dormancy, take advantage of spring snowmelt and minimize predation by seed collecting animals.

Main Plant Area and Miscellaneous Disturbed Areas

This area for reclamation includes disturbed areas associated with the main plant operation west of the Price River, River Pump House, slurry pipelines west of the County Road, and any other disturbed areas. All areas will be graded to final contours as near to the time of final seeding as is practical.

The Operator anticipates that these areas can be revegetated by planting the currently disturbed soils. Test plots will be used to verify that this will be a suitable reclamation method. In the event that test plots fail to demonstrate that these areas can be revegetated without topsoil, a 3 inch soil cover (from the topsoil borrow area) will be distributed over disturbed areas prior to seeding.

Planting and Seeding

Disturbed areas associated with the slurry pipelines (between the Price River and the County Road) and the River Pump House area will be seeded using broadcast methods. All other areas will be seeded by drilling. Seeding of all areas to be reclaimed will occur in late fall (see Table 16 - Appendix H or CRP recommendations, approximately October). This timing should avoid precocious fall germination, overcome seed dormancy, take advantage of spring snow melt and minimize predation by seed collecting animals.

Mechanical Treatment of Soils

Mechanical treatments such as chiseling and discing will be performed as necessary to relieve soil compaction in all areas. Disturbed areas associated with the slurry pipelines (between the Price River and the County Road) and the River Pump House will be pitted or gorged prior to seeding.

Mulching

Straw mulch will be applied to the entire area at a rate of 2,000 pounds per acre and anchored to the soils with a mulch crimper. The application of mulch will serve to decrease evaporation

and increase infiltration of available moisture.

Fertilizer

Soil analysis results indicated nutrient deficiencies in many of the soils to be used for reclamation. The Vegetation Study contained in Appendix H of the ORP recommended application of fertilizer at the rate of 80 lbs of nitrogen and 60-80 lbs of phosphorus per acre. This will be used at present as an estimated application rate for the Reclamation Plan. The amount of fertilizer to be applied will be determined from soil samples at the time of reclamation. Refer to the Topsoil Handling Plan (Appendix II), Nutrients and Amendments.

Topsoil Borrow Area

A vegetation study using the methods described in Appendix H of the Operation and Reclamation Plan will be conducted of the topsoil forrow area (refer to Map E9-3339) to establish revegetation standards during the summer of 1984. A report will be issued to the Division on or before October 31, 1984. This vegetation study will also provide a recommended seed mix for reclamation.

Mechanical Treatment of Soils

Mechanical treatments such as chiseling and discing will be used as necessary to relieve soil compaction of the soils following the topsoil removal operations. During topsoil removal, the upper 2.3 feet of soil will be mixed. Soil will be redistibuted to a depth of 0.5 feet over the topsoil borrow area for reclamation. High clay soil areas will be marked and mixed according to the procedure outlined in the topsoil balance and soil suitability section of Appendix K.

Mulching

Straw mulch will be applied to the entire area at a rate of 2000 lbs per acre and will be anchored to the soils with a mulch crimper. The application of mulch will serve to decrease evaporation and increase infiltration of available moisture as well as reduce soil erosion.

Fertilizer

Soil analysis results indicated nutrient deficiencies in many of the soils to be used for reclamation. The Vegetation Study contained in Appendix H of the ORP recommended application of fertilizer at the rate of 80 lbs of nitrogen and 60-80 lbs of

phosphorus per acre. This will be used at present as an estimated application rate for the Reclamation Plan. The amount of fertilizer to be applied will be determined from the soil samples at the time of reclamation. Refer to the Topsoil Handling Plan (Appendix K), Nutrients and Amendments.

Planting and Seeding

The disturbed area associated with the topsoil borrow area will be seeded in late fall, approximately October. This timining should avoid precocoius fall germination, overcome seed dormancy, take advantage of spring snow melt and minimize seed predation.

Test Plots

Test plots have been installed per the recommendations contained in the attached report, "Revegetation Test Plots and Reclamation Techniques of the Wellington Coal Cleaning Plant, Utah." Noted exceptions -- the recommendation to plant several species of shrubs in portions of the test plots was deleted from the plan. The as-built drawings are included in Figure 1 revised, Drawing 04-0141, Sheet 1 of 2 and 2 of 2.

During construction of the test plots, the coarse refuse pond was contoured plowed instead of pitted; a sulfur amendment was substituted for gypsum in the slurry area, and a one (1) foot deep layer of coarse slurry is being tested to prevent soil loss into voids in the coarse refuse area. An irrigation system in the test plots has been installed per the attached correspondence in Exhibt II.

Information acquired from monitoring the success or failure of the various test plots will be used to modify the Revegetation and Reclamation Plans to increase the probability of reclamation success. It is expected that the test plots will provide information regarding the necessary depth of topsoil for various areas, required depth of a capillary break over pond fines, plant species with the greatest chance of reclamation success, etc. Soil samples will be obtained for each plot treatment.

The test plot information on vegetation and soils will be included in the annual reports until permit renewal at which time the operator will submit a report to the regulatory authority providing interpretations of the available test plot information. This report will contain conclusions or recommendations regarding the effectiveness of the twelve (12) inch coarse slurry capillary barrier, irrigation and other treatments considered in the test plot program. These conclusions and recommendations are subject to regulatory concurrence.

phosphorus per acre. This will be used at present as an estimated application rate for the Reclamation Plan. The amount of fertilizer to be applied will be determined from the soil samples at the time of reclamation. Refer to the Topsoil Handling Plan (Appendix K), Nutrients and Amendments.

Planting and Seeding

The disturbed area associated with the topsoil borrow area will be seeded in late fall, approximately October. This timing should avoid precocoius fall germination, overcome seed dormancy, take advantage of spring snow melt and minimize seed predation.

Test Plots

Test plots have been installed per the recommendations contained in the attached report,"Revegetation Test Plots and Reclamation Techniques of the Wellington Coal Cleaning Plant, Utah". The as built drawings are included in Figure 1 revised, Drawing 04-0141, sheet 1 of 2 and 2 of 2.

During construction of the test plots the coarse refuse pond was contoured plowed instead of pitted; a sulfur amendment was substituted for gypsum in the slurry area and a one (1) foot deep layer of coarse slurry is being tested to prevent soil loss into voids in the coarse refuse area. An irrigation system in the test plots has been installed per the attached corrospondence in Exhibit II.

Information acquired from monitoring the success or failure of the various test plots will be used to modify the Revegetation and Reclamation Plans to increase the probability of reclamation success. It is expected that the test plots will provide information regarding the necessary depth of topsoil for various areas, required depth of a capillary break over pond fines, plant species with the greatest chance of reclamation success, etc. Soil samples will be obtained for each plot treatment.

The test plot information on vegetation and soils will be included in the annual reports until permit renewal. At which time,the operator will submit a report to the regulatory authority providing interpretations of the available test plot information. This report will contain conclusions or recommendations regarding the effectiveness of the twelve (12) inch coarse slurry capillary barrier, irrigation and other treatments considered in the test plot program. These conclusions and recommendations are subject to regulatory concurrence.

Revegetation Monitoring

During the first year following reclamation transects will be randomly located and permanently marked for use in monitoring. One transect will be located for each seed mix and approximately 40 samples will be taken in each transect. The transects will be measured to determine cover and frequency of each species in years 1, 3 and 5 following reclamation. The woody plant density will be measured in years 2,3 and 5 following reclamation. The Division will be consulted to determine the sampling frequency following year 5. Productivity, cover and woody plant density will be measured using the sampling methods described in Appendix H at the time of bond release. The results of this sampling will be compared against the study in Appendix H and reference areas to determine if adequate revegetation has been accomplished.

Special attention will be given to the successful growth and establishment of desirable species. If desirable species are not being established or if excessive undesirable species are establishing themselves, appropriate actions will be taken. If observations during monitoring indicate a need, additional fertilizer will be applied.

Contemporaneous Reclamation

All areas that are currently disturbed by the Operator are required to support the plant operation. When the Operator determines that an area is no lenger needed, the area will be reclaimed using the techniques described in the reclamation and revegetation plan.

Outslopes on earth embankments, road cuts, earth or soil covered impoundments and other similar areas disturbed by the Operator which cannot be permanently reclaimed shall be reclaimed as follows:

1. The area will be seeded with the appropriate quantity and types of seeds shown on Table 16 of Appendix H (Operation and Reclamation). On impoundments or other areas where shrubs are undesirable only the grasses and legumes will be planted. Since most areas will be relatively small and isolated, broadcast seeding will be used.

2. Straw mulch will be applied at the rate of 2,000 lbs per acre. The mulch will be anchored to the soil with a mulch crimper. An alternating method would be to cover the mulch with a netting and pin the netting to the soil.

3. The seed mix for temporary and contemporaneous reclamation of the topsoil borrow area is modified as follows:

SCIENTIFIC NAME	COMMON NAME	LBS PLS/ACRE
Agropyron elongatum	Tall Wheatgrass	6
Agropyron smithii	Western Wheatgrass	7
Agropyron trachycaulum	Slender Wheatgrass	4
Melitotus officinalis	Yellow Sweet Clover	1/2
Poa secunda	Sandberg Bluegrass	1
Sporobolus airoides	Alkali Sacaton	1/2

4. The 1985-86 planting season seed mix is revised as follows:

UNAVAILABLE SPECIES/RATE		SUBSTITUTE SPECIES/RATE	
Sulfur Buckwheat	/2.00	Blue Flax	/1.50
Evening Primrose	/0.50	Annual Sunflower	/4.00

All other seed varieties listed on Table 16, page 43 of Appendix H, in the Operation and Reclamation Plan will be used at the pure live seed broadcast rate.

An alternative method to the approved straw mulch on the topsoil borrow area will be a hydromulch with tackifier at a rate of 2,000 pounds per acre.

5. The 1986 seed mix for temporary stabilization is modified per the attached corrospondence in Exhibit III.

Some refuse impoundments have been constructed out of coarse slurry material which consists of minus 1.25 inch rock. The relatively coarse nature of this material should preclude any erosion problem on the slopes of the dikes.

The coarse refuse pile west of the Price River consists of plus six inch rock which was too large to be crushed and pumped in the slurry lines. The very coarse nature of this material should prevent wind or water erosion until areas can be permanently reclaimed.

Standards of Revegetation Success

The Revegetation Plan proposes to establish two plant communities during reclamation: Atriplex-Hilaria and Sarcabatus-Suaeda. When it is necessary to determine revegetation success for reclamation bond release, a vegetation study using the methods described in Appendix H of the ORP will be conducted on all reclaimed areas and the reference area (see below).

Revegetation success for the Atriplex-Hilaria community will be determined using the range site method according to Division guideline effective at that time. The Sarcabatus-Suaeda community sampled was determined to be in "poor" range condition (refer to Appendix H of ORP). During the preparation of detailed test plot designs, Mt. Nebo Scientific will locate a one acre area of the Sarcabatus-Suaeda sampling site for use as a reference area. A map showing the location of the reference area will be provided to the Division. This area will be fenced by the Operator before April 30, 1984 using four strand barbed wire fencing (or better). The area will remain undisturbed for a period of three to five years and will then be monitored for range condition. Appropriate measures will be determined and implemented to improve the range condition of the reference area from poor to fair or good (in consultation with the Division). Revegetation success of the Sarobatus-Suaeda community will be determined by comparing the plant community of the reclaimed area with the reference area using the Division guidelines effective at the time.

A description of the Artemisia-Hilaria community was provided in Appendix H of the ORP. This community was also found to be in "poor" range condition. The Artemisia-Hilaria community were generally found in the minor drainages between rolling hills of the Atriplex-Hilaria community and each location was comprised of relatively low acreage. It is not proposed to re-establish this community during reclamation and revegetation and it is therefore not necessary to establish a reference area for this plant community for determination of revegetaion success. The description of the Artemisia-Hilaria community was provided for informational purposes since it comprises some 7 acres of the permit area.

EXHIBIT I A

Estimated Refuse Balance

Raw Coal Into Washer	1,200,000 tons/year
Yield	82%
Clean Coal Shipped	984,000 tons/year
Refuse Generated	216,000 tons/year
Material to Coarse Refuse Pile	50,000 tons/year
Material Out Slurry Pipeline	166,000 tons/year
Fine Coal to Refuse Ponds (30% of slurry)	50,000 tons/year
Coarse Slurry Refuse	116,000 tons/year
Density (measured)	120 lbs/c.ft.
Volume	72,000 cy/year
Volume for 30 years Operation	2,150,000 cy

Coarse Slurry used for Impoundments

Phase 2	Estimated Volume (cy)
Lower Refuse Dike (under construction)	80,000
Upper Refuse Dike	70,000
North Dike	40,000
Total Phase 2 Modifications	190,000
Phase 3	
Upper Refuse Dike	73,000
North Dike	160,000
Total Phase 3 Modifications	263,000
TOTAL	453,000
Net Volume for Disposal	1,700,000

EXHIBIT II

Wellington Test Plot

Irrigation System

MT. NEBO SCIENTIFIC
research and consulting

290 east 1230 north, springville, utah 84663
phone (801) 489-6937

August 2, 1984

Mr. Lynn Kunzler
Reclamation Biologist
State of Utah, Division
of Oil, Gas and Mining
4241 State Office Bldg.
Salt Lake City, Utah 84114

Dear Lynn:

This letter is to answer your question and to further clarify the application rates for the second growing season of the reclamation test plots at the Wellington Coal Cleaning Plant. As stated in the *IRRIGATION OF THE REVEGETATION TEST PLOTS OF THE WELLINGTON COAL CLEANING PLANT*, management of the irrigation system will be to encourage deep rooting while "hardening off" the plants to increase survival following termination of irrigation. These goals could be accomplished by decreasing the frequency of application and total annual volume of supplemental water. Volume of water will not, however, be decreased per single application the second year. For example, water may be applied at the rate of .75 inches (twice a week) the first growing season, whereas, applied at the rate of 1.00 inch (once a week) the second growing season. This schedule would decrease frequency of application, decrease the total annual volume of supplemental water, but increase volume of water per application (thus increasing depth of water infiltration and encouraging extensive root development). As also stated in the previously submitted irrigation schedule, application rates the second year may be somewhat dependant on the irrigation success the previous year.

If you have further questions regarding any part of the test plot design, please do not hesitate to call.

Sincerely,

Patrick D. Collins

Patrick D. Collins, Ph.D.
Botanist/Reclamation Specialist

cc: V. Randy Watts, U.S. Steel Mining Co.
Barbara Filas, U.S. Steel Mining Co.

IRRIGATION OF THE REVEGETATION TEST PLOTS OF THE WELLINGTON COAL CLEANING PLANT

Response to:
Stipulation UMC 817.111-.117-(1)-LK

for
U.S. STEEL MINING CO., INC.
Coal Cleaning Plant
Wellington, Utah

by
Patrick D. Collins, Ph.D.
MT. NEBO SCIENTIFIC RESEARCH AND CONSULTING
290 East 1230 North
Springville, Utah 84663
(801) 489-6937

July 1984

Response to: Stipulation UMC 817.111-.117-(1)-LK

IRRIGATION OF THE REVEGETATION TEST PLOTS OF THE WELLINGTON COAL CLEANING PLANT

As stated in the revegetation test plot design (Collins 1984), supplemental irrigation is one variable to be tested. The purpose of this addendum is to provide additional information to the State of Utah, Division of Oil, Gas and Mining, about irrigation techniques on the U.S. Steel Mining Co. properties.

Supplemental Irrigation Goals

It is our intention to supply supplemental irrigation water for initial plant establishment. Once the plant species are adequately established, the supplemental water will gradually be reduced to provide a "hardening-off" effect prior to irrigation termination. The irrigation will be managed to incourage plant root development that is adequate for survival under normal climatic conditions. The availability of supplemental water decreases the risk of drought periods due to unpredictable precipitation patterns in the spring and summer months.

Furthermore, it is our goal to simulate the most feasible method of irrigation to be used at the time of

final reclamation (if supplemental water is shown to be necessary for revegetation).

Water Source

As mentioned in the mine permit, three water sources are possible for irrigation of the test plots: 1) the cleaning plant system (clear water pond), 2) the Price River and 3) culinary water.

Water for the test plots will be taken from the Price River. Reasons for this choice are listed below. Primarily, although irrigation engineering for the test plots may be somewhat simpler if culinary water or the clear water pond were used, the Price River water should provide more accurate test results by reducing variability. To further explain this statement -- if test plots show that irrigation is necessary to establish adequate vegetative cover on the disturbed areas, the Price River will be the most feasible source for the water at the time of final reclamation. Therefore, if the test plots are supplied from the same source that the final reclamation project would use, test results would be more accurate and reduce the variability of the water source. Water quality is significantly different in each of the three sources. The primary differences between sources are

total dissolved solids and total suspended solids. The clear water pond has very low total suspended solids (TSS $\bar{x}$ = 9.42 mg/l) but high values in salinity (EC $\bar{x}$ = 2,866.67 umhos/cm) and sodicity (SAR $\bar{x}$ = 33.45). The later two values rank the salinity and sodium hazards as "very high" or "severe" in several different water quality classification systems (Donahue et al. 1983, Ayres and Westcott 1976, Richards 1954).

The Price River water has high total suspended solids (TSS $\bar{x}$ = 1,689.29 mg/l) but lower salinity (EC $\bar{x}$ = 1,145.63) and sodicity (SAR $\bar{x}$ = 10.69) on the months water would be retrieved. Salinity and sodicity hazards are ranked "high" and "low", respectively by the water quality classifications system. The culinary water would of course have no problems with total dissolved solids or total suspended solids which could also bias plot sample results.

As the reviewer may note, these water sources may be balanced somewhat by soil amendments and additional leaching, however, this would increase the plot design complexity.

Type Of Irrigation System

Selection of the proper irrigation system for this area was primarily a choice between sprinkle type or drip (trickle) type systems. Each system has certain advantages

and disadvantages. When these variables were analyzed it was decided that the fixed sprinkle type irrigation system would be best suited for reclamation of the Wellington Coal Cleaning Plant disturbances. Even though drip type systems have many advantages in the irrigation of arid and semi-arid disturbances, the chief reason for selection of the sprinkle system was water quality. As previously stated, the Price River has high total dissolved solids and suspended solids. On an index for classifying waters as to their suitability for use in drip (trickle) irrigation (Bucks et al. 1979), the water quality values indicated that "problems would occur". These problems would lie chiefly in clogging and maintenance of the drip system emitters.

Although the maintenance problems of the drip system could conceivably be overcome for the test plots, our intent is to simulate the best possible technology in the procedures to be used *at final reclamation*. At the time of final reclamation it is our opinion that sprinkling would be superior to drip irrigation.

It is not intended in the scope of this addendum to compare the advantages and disadvantages between the two systems nor to site all literature and experience from

which this choice was made, however, these variables are available by contacting the author.

Application Rates

Rates of application will depend on the precipitation patterns of the year. It is recommended that the soil is not allowed to crust or dry the first 18-20 days of the new growing season (Ries and Day 1978). Following germination, .50 to .75 inches of water will be sprinkled twice a week on the irrigation sections of the test plots for the first growing season. The second and final year for irrigation, management of irrigation application will be implemented as to encourage deep rooting and lateral extension of the roots into the subsoil. This will increase chances of survival of plant species following termination of irrigation. This will be done by decreasing frequency of water applications to provide a "hardening-off" period for the vegetation the second season. Exact rates will depend on the success of the previous year, but are expected to be cut from 30 to 50 percent.

REVEGETATION TEST PLOT
SAMPLING SCHEDULE AND PARAMETERS

Annual sampling of each treatment of the test plots will be accomplished and submitted to the State of Utah, Division of Oil, Gas and Mining (DOGM) by December of each year. The sampling will be done for five years at which time the annual data will be compiled and each treatment analysed for effectiveness. At this time a meeting with DOGM, will be conducted and the data presented to discuss whether the current test plots are adequate and should remain for further study or if the data suggests additional treatments could be necessary for reclamation research.

Quantitative sampling will be accomplished in the early summer of each year, however, qualitative data (i.e. rodent or erosion damage, growth/germination notes, etc.) may be taken several times during the growing season. Sampling parameters will include: total living cover, cover by species, relative composition, relative frequency, density and reproduction rates. Sampling methods will follow those described in the permit application on page 5 of "Vegetation and Reclamation of the Wellington Coal Cleaning Plant". Water stress on plants

may also be checked periodically to provide an indication of the proper schedule for irrigation. Furthermore, exchangeable sodium and salinity will be monitored on the Slurry Pond Test Plot to monitor the migration of salts.

LITERATURE CITED

Ayres, R.S. and D.W. Westcott. 1976. Water quality for agriculture. Irrigation and Drainage Paper 29, FAO, Rome.

Bucks, D.A., F.S. Nakayama, and R.G. Gilbert. 1979. Trickle irrigation water quality and preventative maintenance. Agricultural Water Management 2:149-162.

Collins, P.D. 1984. Revegetation test plots and reclamation techniques of the Wellington Coal Cleaning Plant, Utah. Unpubl report submitted to U.S. Steel Mining Co., Utah.

Donahue R.L., R.W. Miller and J.C. Shickluna. 1983. Soils: an introduction to soils and plant growth. Prentice-Hall, Inc., Englewood Cliffs, N.J. 666p.

Richards, L.A. (ed). 1954. Diagnosis and improvements of saline and alkali soils. USDA Agr. Handbook No. 60.

Ries, R.E. and A.D. Day. 1978. Use of irrigation in reclamation in dry regions. In F.W. Schaller and P. Sutton (eds). Reclamation of drastically disturbed lands. ASA-CSSA-SSSA., Madison, WI. 742p.

EXHIBIT III

Contemporaneous

Reclamation

Correspondence

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

October 1, 1985

CERTIFIED RETURN RECEIPT REQUESTED
P-5952-429-556

Ms. Barbara Filas
U. S. Steel Mining Company
P. O. Box 437
Wellington, UTah 84542

Dear Ms. Filas:

Re: Approval of Seed Mix for Borrow Area, Wellington Coal Cleaning Plant, ACT/007/012, Folder No. 3 and 4, Carbon County, Utah

The Division has reviewed the revised Seed Mix for contemporaneous reclamation of the topsoil borrow area submitted September 24, 1985, and hereby approves this seed mix for temporary and contemporaneous reclamation of the topsoil borrow area.

This approval only modifies the seed mix for the borrow area. All other areas requiring temporary/contemporaneous revegetation should use the previously approved seed mix. As always, should you have any questions, please don't hesitate to call.

Sincerely,

Lynn Kunzler
Reclamation Biologist

jvb
cc: A. Klein
L. Dalton
W. Heaberg
J. Helfrich
L. Kunzler
S. Linner
0092R-19

File ACT/007/012
Folder #15

U. S. Steel Mining Co., Inc.
a Subsidiary of United States Steel Corporation

WESTERN DISTRICT

Coal Cleaning Plant
P.O. Box 437
Wellington, Utah 84542
801-637-0120

September 24, 1985

RECEIVED
SEP 26 1985
DIVISION OF OIL
GAS & MINING

Mr. Lynn Kunzler
Division of Oil, Gas, and Mining
355 W. North Temple
3 Triad Center - Suite 350
Salt Lake City, UT 84180-1203

RE: Contemporaneous Reclamation of the Topsoil Borrow Area
Wellington Coal Cleaning Plant - ACT/007/012

Dear Lynn:

Per your telephone conversation with Patrick Collins last week, the following seed mix will be used for contemporaneous reclamation of the topsoil borrow area:

SCIENTIFIC NAME	COMMON NAME	LBS PLS/ACRE
Agropyron elongatum	Tall Wheatgrass	6
Agropyron smithii	Western Wheatgrass	7
Agropyron trachycaulum	Slender Wheatgrass	4
Melilotus officinalis	Yellow Sweet Clover	1/2
Poa secunda	Sandberg Bluegrass	1
Sporobolus airoides	Alkali Sacaton	1/2

Sincerely,

Barbara A. Filas
Plant Engineer

cc: L. King
B. L. Kirkwood
V. R. Watts
E. C. File

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

October 25, 1985

Ms. Barbara Filas
U. S. Steel Mining Company, Inc.
P. O. Box 437
Wellington, Utah 84542

Dear Ms. Filas:

Re: Change in Contemporaneous Reclamation for 1985-6 Planting Season, Wellington Coal Cleaning Plant, ACT/007/012, Folder No. 3, 4, and 14, Carbon County, Utah

The Division hereby approves the revision to the Contemporaneous Reclamation Plan (for the 1985-86 planting season only) at the Wellington Coal Cleaning Plant as outlined in your October 22, 1985 letter. This includes substituting sulfur buckwheat and evening primrose with blue flax and annual sunflower at the dragline area and using one ton/acre of hydromulch instead of straw in the topsoil borrow area.

As always, please call if you have any questions.

Sincerely,

Lynn Kunzler
Reclamation Biologist

jvb
cc: Wayne Hedberg
Joe Helfrich
Sue Linner
0092R-21

File ACT/007/012
#3

U. S. Steel
Mining Co., Inc.
a Subsidiary of United States Steel Corporation

WESTERN DISTRICT

Coal Cleaning Plant
P.O. Box 437
Wellington, Utah 84542
801-637-0120

October 22, 1985

RECEIVED
OCT 24 1985
DIVISION OF OIL
GAS & MINING

Mr. Lynn Kunzler
Division of Oil, Gas, and Mining
355 W. North Temple
3 Triad Center Suite 350
Salt Lake City, UT 84180-1203

Dear Mr. Kunzler:

Per our October 18 telephone conversation, the following seeds will be substituted for those which are not available for contemporaneous reclamation (1985-6 planting season) at the Wellington Coal Cleaning Plant - ACT/007/012:

Unavailable Species / Rate	Substitute Species / Rate
Sulfur Buckwheat / 2.00	Blue Flax / 1.50
Evening Primrose / 0.50	Annual Sunflower / 4.00

All other seed varities listed on Table 16, page 43 of Appendix H, in the Operation and Reclamation Plan will be used at the pure live seed broadcast rate.

Also, as we discussed, an alternative method to the approved straw mulch on the topsoil borrow area will be a hydromulch with tactifier at a rate of 2000 pounds per acre.

Sincerely,

Barbara A. Filas
Plant Engineer

cc: B. L. Kirkwood
V. R. Watts
L. King
EC File

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

Received 11/20 DKB

November 14, 1986

CERTIFIED RETURN RECEIPT REQUESTED
P-402-459-473

Mr. Rob Wiley
Kaiser Coal Company
P. O. Box 10
Sunnyside, Utah 84539

Dear Mr. Wiley:

Re: Approved Changes in the Temporary Seed Mix for the Wellington Coal Cleaning Plant, ACT/007/012, Folder No. 4 and 14, Carbon County, Utah

The Division has reviewed your October 24, 1986 request to revise the seed mix to be used for temporary stabilization at the Wellington Coal Cleaning Plant.

While the Division appreciates the effort Kaiser has made in developing the proposed mix, and recognizes the harshness of the site and the difficulty in establishing vegetation at the Wellington site, it does not agree with all statements made in your request based on personal experience and consulting with other professional reclamationists, including some that you have referenced.

As proposed, the seed mix normally would not be acceptable. However, under the following conditions and changes in the seeding rate, the Division will allow the use of these species for 1986 planting on an experimental basis.

Species	Drill Rate PLS/ac
Russian wildrye (Elymus junceus)	2.0
Squirreltail (Sitanion hystrix)	1.0
Indian Ricegrass (Oryzopsis hymenoides)	3.0
Streambank wheatgrass (Agropyron riparium)	3.0
Slender Wheatgrass (Agropyron trachycaulum)	3.0
Yellow Sweetclover (Melilotus officinalis)	1.0
Four-wing saltbush (Atriplex canescens)	2.0
Gardner saltbush (Atriplex gardneri)	1.0
*'immgrant' forage kochia (Kochia prostrata)	1.0*

* Forage kochia does not establish from drill seeding and should be broadcast on the surface at 1 pound/acre PLS.

Areas that will be broadcast seeded are to be seeded at double the drill seeding rate.

Ephraim crested wheatgrass may be added at 1 pound/acre PLS (Drill rate) to all areas except topsoil or substitute topsoil stockpiles.

Since it is believed that many of the past seeding failures may be due to poor quality seed, the Division would like a current seed analysis so that if success is not achieved one could more easily determine the cause. Therefore, once the seed has been obtained please contact Carl Bott, Seed Inspector in Price at 637-4500 to obtain a sample for analysis at the State Seed Lab. A copy of the results is to be submitted to DOGM.

The Division appreciates Kaiser's willingness to perform the necessary revegetation tasks. The primary goal of revegetation is to stabilize the soils. Recognizing the costs involved and the

"slow" development of many native species, the Division will allow a minimum of two growing seasons before areas of apparent poor success are required to be reseeded, provided:

1. there are no obvious revegetation problems;
2. soils are stable;
3. a map showing the locations of the areas that are seeded this year must be submitted with the annual reclamation report.

Should you have any questions, please feel free to call.

Sincerely,

Susan C. Linner

Susan C. Linner
Reclamation Biologist/
Permit Supervisor

jvb
cc: D. Lof
L. Kunzler
0092R-41

KAISER COAL

KAISER COAL CORPORATION
Sunnyside Coal Mines
P.O. Box 10
Sunnyside, Utah 84539
Telephone (801) 888-4421

October 24, 1986

Susan Linner
Permit Supervisor
State of Utah Natural Resources
Oil, Gas and Mining
355 W. North Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

RE: Temporary seed mixes for use at Wellington Coal Cleaning Plant

Dear Ms. Linner:

Approximately 8 acres need to be temporarily reclaimed at the Wellington Coal Cleaning Plant in 1986. Kaiser has expended considerable effort in researching the best technical approach and working towards resolving issues related to the composition and seeding rates of a temporary seed mix. At this time the primary issue, that of utilizing Ephraim crested wheatgrass in the seed mix, is unresolved. Kaiser requests that the proposed seed mix discussed in this submittal be approved for site stabilization.

Kaiser has had several conversations with Lynn Kunzler, DOGM (10/6/86, 10/17/86), concerning proposed seed mixes for the Wellington site. These conversations have been primarily directed towards resolution of the species composition for the mix.

All of the plant species that are proposed, with the exception of the Ephraim crested heatgrass, have been approved by the DOGM for use in the temporary seed mix in the drill rates proposed. Ephraim crested wheatgrass has been approved, but has been recommended at a rate not to exceed 1 to 2 PLS lbs/ac. Kaiser proposes that Ephraim be used in a mix not to exceed 25% of the mix at a rate of 2.7 PLS lbs/ac drilled.

The current status of reclamation at the Wellington Coal Cleaning Plant may be summarized as follows:

- Areas to be reclaimed have been previously disturbed, erosion is occuring on some sites, and stabilization is required.

- Site stabilization is Kaiser's first priority in accordance with Utah regulations and guidelines concerning temporary reclamation.

- Kaiser has been informed that NOV's will be issued if stabilization of these sites is not conducted.

- The site is harsh consisting of saline, sodic, heavy soils; precipitation is 8 to 10 inches/yr; with very hot summers and very cold winter seasons. Reclamation is acknowledged to be difficult.

- US Steel has used a minimum of 27 plant species in a number of attempts, including test plots, to establish vegetation; these reclamation attempts have met with little to no success.

- The only species that has consistently performed well at Wellington is crested wheatgrass, which is located at least two sites--including the Sauerman Dragline.

- Kaiser requests that DOGM allow planting a small amount of Ephraim crested wheatgrass in a diverse, and otherwise largely native seed mix in order to stabilize the sites.

- Ephraim crested wheatgrass is known to establish in difficult conditions, to effectively stabilize sites, and to control erosion.

- Kaiser continues to commit to monitoring reclaimed areas for species performance, and to seek a solution to acknowleged difficulties in achieving permanent reclamation success.

The proposed seed mix is as follows:

Species	% Mix	Drill (PLS/ac)	Broadcast (PLS/ac)
Ephraim crested	25	2.7	4.0
Russian wildrye	15	1.9	2.8
Squirreltail	5	0.5	0.8
Indian ricegrass	10	1.6	2.3
Sodar streambank	10	1.4	2.0
Slender wheatgrass	15	2.0	3.0
Fourwing saltbush	5	2.0	3.0
Yellow sweetclover	5	0.4	0.6
Prostrate kochia	5	1.0	2.0
Gardner saltbush	5	1.0	1.5
Total		14.5	22.0

It should be noted that these seeding rates have been recommended by the SCS in Price, Upper Colorado Plant Materials Center, Los Lunas Plant Materials Center, SCS Seeding Guides for Utah,

and others.

The following section identifies DOGM's apparent concerns regarding Ephraim crested wheatgrass, and Kaiser's responses to those concerns. These responses are based on current literature and on interviews with reclamation specialists. A list of personnel contacted and a selected bibliography is contained in Attachment 1. In addition, the SCS in Price has composed a recommended seeding mix for use at the Wellington site based on their experience in the area (Attachment 1).

ISSUE:
DOGM is concerned that stands of crested wheatgrass may develop into monocultures.

RESPONSE:

- Results of research and field trials conducted with Ephraim crested wheatgrass have demonstrated that under the extreme environmental conditions present at Wellington, Ephraim will not perform aggressively, and is unlikely to form a monoculture.

- Monocultures of crested wheatgrass are formed when crested wheatgrass is seeded as a single species. When crested wheatgrass is seeded in a mixture, monocultures are not formed.

- Conclusions concerning development of monocultures have resulted from research conducted with other varieties of crested wheatgrass. Research has indicated that Ephraim will not respond in precisely the same manner as other crested varieties.

- Virtual monocultures are approved by the regulatory agency for temporary reclamation when only 3 to 4 species are allowed in a mix. Diversity is an issue only where permanent reclamation is concerned.

ISSUE
DOGM is concerned that crested wheatgrass is unpalatable except for a limited time in the spring.

RESPONSE

- Ephraim stays greener for a longer period of time in the spring than other crested varieties, therby allowing increased duration of grazing.

- Grazing studies conducted by the Utah Shrub Lab have demonstrated that Ephraim is considerably more palatable than other varieties of crested wheatgrass.

- Kaiser does not intend to permit grazing, and indeed will not allow grazing to be conducted on any reclaimed sites at Wellington. Species palatability, therefore is of no concern at this time.

ISSUE
DOGM is concerned that crested wheatgrass is persistent after it becomes established.

RESPONSE

- Final reclamation will involve regrading, recountouring, and other substantial earth moving activities which will preclude the ultimate survival of this species in permanently reclaimed areas.

- Ephraim crested wheatgrass can be easily controlled with a light application of an herbicide such as "Round-up". Kaiser has committed to monitoring species performance, and if necessary to control the presence of this species by the use of herbicide or by other mechanical means.

Kaiser requests that the proposed seed mix be approved for the following reasons:

- Both the plant species and the seeding rates at which they have been proposed are known to effectively control erosion on steep slopes and on poor soils.

- Kaiser wishes to continue testing species performance at Wellington while complying with regulatory requirements. Site specific field evaluations of reclamation success will be conducted by Kaiser.

We sincerely appreciate your timely assistance and cooperation in approving this temporary seed mix to be used for site stabilization and temporary reclamation at the Wellington Coal Cleaning Plant. Kaiser plans to complete reclamation activities as soon as practicable in early November, 1986.

Sincerely,

Doug Pearce
Mining Engineer

cc: R. Wiley
M. Holmes
S. Hasenjager

ATTACHMENT 1

LIST OF RECLAMATION SPECIALIST CONTACTS

Wendell Oaks
Manager Plant Materials Center
Los Lunas, New Mexico

Sam Stranathan
Manager Upper Colorado Plant Materials Center
Meeker, Colorado

John Olson
General Manager, Director of Reclamation
Antelope Coal, Nerco
Douglas, Wyoming

Mike Coats
Reclamation Biologist
York Canyon Mine
Raton, New Mexico

Marcia Wolfe
Manager of Reclamation
Bechtel Corporation
Bakersfield, California

Larry Kline
Office of Surface Mining
Denver, Colorado

Ray Austin
Reclamation Biologist
Montana Dept. State Lands
Helena, MT

Page Smith
Reclamation Biologist, Range Scientist
Wyoming Dept. Environmental Quality
Cheyenne, WY

Jack Smith
Reclamation Biologist, Range Scientist
Wyoming Dept. Environmental Quality
Cheyenne, WY

Wendell Hassell
SCS Plant Materials Specialist
Denver, CO

Gary Noler
Plant Materials Specialist
Upper Colorado Plant Materials Center
Meeker, CO

Richard Stevens
Utah Div. of Wildlife
Ephraim, Ut

Stan Young
Plant Services Department
Logan, UT

Scott Ferguson
Range Conservationist
Soil Conservation Service
Price, Utah

George Cook
Range Conservationist
Soil Conservation Service
Price, UT

Jacy Gibbs
Plant Materials Specialist
Soil Conservation Service
Boise, ID

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SCS. 1986. Standards and Specifications for Range Seeding for New Mexico.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
350 N. 4th E. Price, UT. 84501

October 20, 1986

Ms. Susan Hasenjager
Sunnyside Mines
Sunnyside, UT. 84539

Dear Ms. Hasenjager:

This letter is in response to your request for reclamation seeding mixes and rates. All rates are in Pure Live Seed, drilled.

Wellington-Washer Site (app. 10 in. annual precipitation)

Siberian Wheatgrass	2 lbs. per acre
Fairway Crested Wheatgrass	2 " " "
Ephriam Crested Wheatgrass	2 " " "
Indian Ricegrass	2 " " "
Russian Wildrye	2 " " "
Penstemon	1 " " "
Yellow Sweetclover	½ " " "
Fourwing Saltbush	2 " " "
	13½ total lbs. per acre

Pinyon-Juniper Site (app. 12 in. annual precipitation)

All the above, with the addition of 'Appar' Lewis FLax at 1 lb. per acre. From your description of the site, it sounds marginal for 'Delar'Small Burnet, but you could try it at 2 lbs. per acre.

Please give me a call if you need any further assistance.

Scott E. Ferguson

Scott E. Ferguson
Range Conservationist, SCS, Price, UT.

cc: Keith Beardall, District Conservationist, SCS, Price, UT.

REVEGETATION TEST PLOTS
AND RECLAMATION TECHNIQUES
OF THE
WELLINGTON COAL CLEANING PLANT, UTAH

Prepared by

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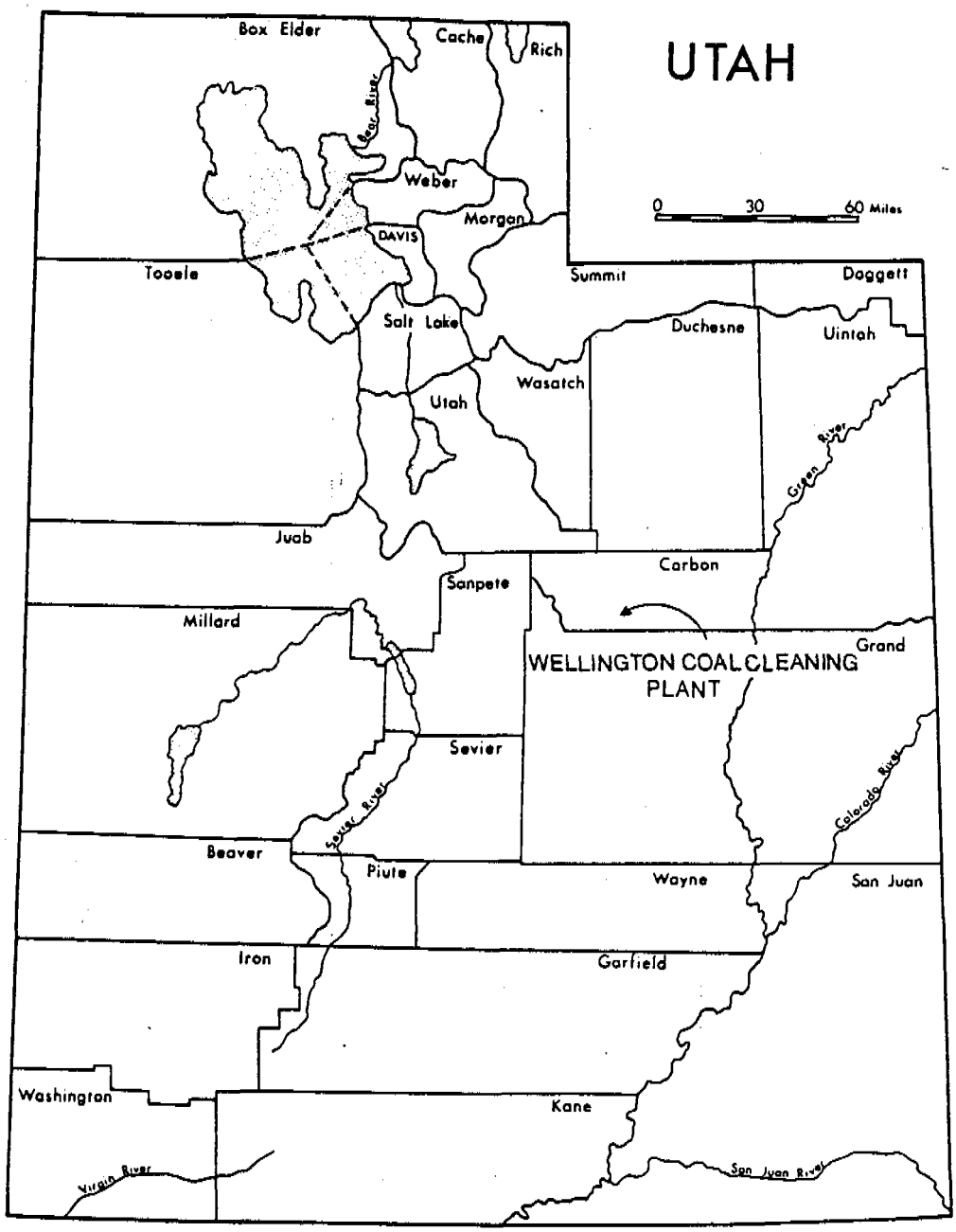
for

U. S. STEEL MINING CO., INC.
P.O. Box 807
East Carbon, Utah 84520

by

Patrick D. Collins, Ph.D.

Date: January 1984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Green River
Juab
Carbon
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Millard
Grand
WELLINGTON COAL CLEANING PLANT
Sevier
Sevier River
Colorado River
Beaver
Piute
Wayne
San Juan
Iron
Garfield
Washington
Kane
Virgin River
San Juan River

ACKNOWLEDGEMENTS

Appreciation is extended to Ronald J. Kass for his assistance with the list of plant species for revegetation and testing. His helpful comments about the text of this report is also appreciated.

TABLE OF CONTENTS

SCOPE

The Mining and Reclamation Plan for the Wellington Coal Cleaning Plant has been previously written. The baseline data for the native plant communities and soils were included. Field studies indicated several problems that may adversely affect final reclamation of this area. The purpose of this report is to outline these problems, provide a scientifically sound revegetation plot design for testing the variables, and to describe the current techniques that will insure successful final land reclamation.

The revegetation test plots will provide a quantitative and qualitative means to explore the potentials and limitations of the reclamation program. They should also provide reasonable and often economical aternatives to the reclamation planner.

INTRODUCTION

The primary goal of the revegetation plan is to work within the environmental constraints of the ecosystem in establishing cover that will 1) eventually be capable of perpetuating itself under natural conditions and 2) meet the needs of various users as they existed prior to disturbance. As suggested in the vegetation and reclamation plan (Collins 1983), vegetative test plots would provide a qualitative and quantitative means to explore the potentials and limitations of the final reclamation program. They also provide reasonable and often economical alternatives to the reclamation planner. The successful establishment of vegetation is dependent not only on supplying the essential plant nutrients, water, reclamation technique and adaptable species, but in providing these materials in adequate amounts at the critical time. Hodder (1977) points out that the combination of these factors naturally occur infrequently in the semiarid West. McArthur et al. (1978) states that "improvement of salt desert ranges with less than 8 inches (20.3 cm) of precipitation involves approaches largely to be discovered."

The Wellington Coal Cleaning Plant is located in the semiarid salt desert of central Utah. Elevation of the area lies between 5,300 and 5,500 ft above sea level. Mean annual precipitation generally lies between 6 and 8

inches (Climatological Data 1975-1977).

The plant communities of the area lie primarily on rolling slopes of Manco Shale and alluvial valley deposits. There are three major plant communities affected by the activities of the coal cleaning plant. The rolling hills of the Manco Shale soils have been disturbed. Plant communities supported on these slopes are predominately Atriplex-Hilaria (shadscale-galleta), and to a much lesser extent, Artemisia-Hilaria (black sagebrush-galleta). Finally, the major drainage and valley disturbances were once inhabited by Sarcobatus-Suaeda (greasewood-alkali seepweed) communities. The above three plant communities were sampled to provide baseline data and to set standards for revegetation. For quantitative and qualitative data on the area, refer to Collins (1983). Moreover, isolated patches of nearly pure stands of Indian ricegrass *(Oryzopsis hymenoides)* and mat saltbrush *(Atriplex corrugata)* can be found throughout the property. Since these two communities and the Artemisia-Hilaria community are relatively few and are composed of very little total acreages, they will have little or no effect on the revegetation procedures upon termination of the coal cleaning plant activities. For vegetation maps of the area, refer to Collins (1983).

MAJOR DISTURBANCE AREAS AND PLOT DESIGNS

Within the two major plant communities to be reclaimed, there are basically four significant areas of land disturbances: the surface facility area, the coarse refuse area, the coarse slurry area, and the sediment (slurry) pond area. A reclamation test plot, specifically designed for each area, will be established on the four major disturbance types. The paragraphs below will list the reclamation techniques to be employed at the test plot for each area. Subsequent sections will describe each technique to be used on the test plots and offer justifications for their use. Furthermore, diagrams are also included illustrating treatments, plot size and design.

Surface Facility Area

The surface facility area, located west of the Price River, is probably the least impacted area of the four major disturbance types. The soils of this area have been compacted by vehicles, heavy equipment and general surface facility operations. A reclamation testing area will be placed on this area (see enclosed maps for location).

The following treatments will be implemented on the entire plot area:

1) ripping
2) fertilization
3) gouging
4) adapted plant seeding
5) mulching

6) containerized stocking
7) fencing

In addition, the following treatments will be tested for effectiveness:

1) irrigation
2) different seed mixtures
3) topsoiling

For an illustration of the plot design for this area refer to Figure 1. For a list of plant species to be seeded and transplanted, refer to Tables 1 and 2.

Coarse Refuse Area

The coarse refuse pile west of the Price River and south of the cleaning plant is another area that needs pre-reclamation consideration and testing. The coarse refuse piles consist of black shaley waste material (10 in. plus) that has been hauled and dumped from the coal cleaning process. Because the material is so coarse, the piles often contain void air inter-spaces. Therefore, at the time of final reclamation it may be necessary to initially cover the pile with finer material (i.e. the coarse slurry material located on the east side of the Price River). Following this procedure, topsoiling may be more efficient because the soil would not be lost through time to the void inter-spaces.

The following treatments will be implemented on the entire test site:

1) ripping
2) gouging
3) fertilization
4) adapted plant seeding
5) containerized stocking
6) mulching
7) fencing

In addition, the variables tested will be:

1) coarse slurry coverage
2) topsoiling depth
3) irrigation
4) organic amendments

The exact location of this test plot is also shown on the enclosed map. For an illustration of the plot design, refer to Figure 2. Furthermore, the plant species list for the proposed test plot is shown on Table 1.

Coarse Slurry Area

Another major disturbance type on the Wellington Coal Cleaning Plant properties are the coarse slurry piles east of the Price River and west of the slurry ponds. This material is much finer than the coarse refuse material mentioned above (size < 1.25 in). No toxic salt levels were evident from the soil testing results (Collins 1983). Furthermore, some weedy plant species are presently invading this disturbed area with no added amendments or treatments. Location of this test plot is shown on the enclosed map.

The following treatments will be performed on the entire test plot:

1) gouging
2) fertilization
3) ripping
4) adapted species seeding
5) containerized plantings
6) mulching
7) fencing

The additional variables tested will be:

1) irrigation
2) borrow topsoil depth
3) organic amendments

For an illustration of the test plot design, refer to Figure 3. For the species mixture to be seeded, refer to Table 1.

Slurry Pond Basin Area

The slurry or settling pond areas are composed of saline-sodic soils at their present state (refer to soil analyses, Collins 1983). Prior to land disturbance, the area was primarily supported by greasewood *(Sarcobatus vermiculatus)* communities. Greasewood community soils are often prone to saline conditions, but with the constant evaporation of saline waters (necessary for the cleaning plant) toxic levels of soluble salts and exchangeable sodium have resulted.

Present reclamation plans entail returning the community to greasewood, however, there are some projected concerns about these reclamation procedures. Upon termination of the coal cleaning plant's activities, constant

sedimentation of the ponds could raise the ground level approximately 30-40 ft. This could, of course, change soil moisture and ground water relationships. Therefore, the saline-sodic soil should be reclaimed and a variety of treatments tested. Furthermore, the species mixtures will include species that may be adapted to the greasewood community and/or the shadescale community (see Adapted Plant Species section). The following treatments will be performed on the entire test plot:

1) natural leaching
2) ripping
3) fertilization
4) calcium sulfate amendment
5) gouging
6) adapted species seeding
7) containerized planting
8) mulching
9) fencing

Additional treatments tested are listed below:

1) coarse slurry coverage
2) irrigation
3) borrowed topsoil depth
4) organic amendment added

It should be mentioned that it is presently not feasible to use any portion of the slurry pond for a test plot because it is still in use. Therefore, an area adjacent to the pond will be leveled and used. Slurry pond spoil material will be placed on the test plot area. The ground level of this area will be approximately 20 ft higher than the present pond level but, this will actually

be nearer to the pond elevation at the time of final reclamation. For test plot locations refer to the enclosed map. For an illustrated plot design, refer to Figure 4. All test plot locations are pending approval by the State of Utah, Division of Oil, Gas and Mining. For a proposed species list refer to Table 3.

RECLAMATION TECHNIQUES

The Wellington Coal Cleaning Plant properties contain a variety of severe environmental variables that may make revegetation a formidable task. Previous sections have described the proposed test plots and also list reclamation treatments and techniques to be performed at each plot location. Listed below are all treatments and techniques proposed in the test plot with a brief description and justification of each. Listed first are the techniques that will be used on the entire test plot on all disturbance types (plot locations). These techniques will also be implemented at final reclamation.

Soil Ripping

Much of the soils of the area (i.e. coarse slurry and surface facility areas) have been compacted by heavy equipment and other vehicles. Soil crusting from the soluble salts and poor soil flocculation from the exchangeable sodium (Donahue et al. 1983) are expected in much of the disturbed soil. Therefore, to relieve soil compaction, increase infiltration and decrease salts, soil ripping will be accomplished on all test plots (Donahue et al. 1983, Schaller and Sutton 1981, Thames 1977, Vories 1976).

Fertilization

Soil analyses indicated nutrient deficiencies, especially nitrogen and phosphorus. Therefore, all test plots will

have fertilizer incorporated in the soils prior to seeding. Present recommended application rates for arid and semiarid regions are 80 lbs/acre N and 80-160 lbs/acre P (Packer and Aldon 1978, Cook et al. 1974). Following reclamation techniques and seedbed preparations, soil will be analysed for basic fertility. Fertilizer application rates will depend on results from these analyses, however, they will be within the ranges described above.

Gouging

Gouging is a surface configuration composed of a series of depressions approximately 10 in. deep, 18 in. across and 25 in. long. Gouging effectively reduces saltation, controls water erosion and increases infiltration (Thames 1977). Gouging is also effective for winter snowpack. It keeps most snow from blowing away and causes differential melting patterns (Hodder 1976). Minimal loss of snowpack increases spring and summer soil moisture.

Adapted Plant Species

Quantitative sampling has been accomplished in the major plant communities of the Wellington Coal Cleaning Plant (Collins 1983). The data may serve as a guide for species selection, but due to the alteration of the plant community by structural disturbance, a combination of species that exhibit wider ranges of tolerance in response

to disturbance will be used. A mixture of forbs, grasses and shrubs are preferred because they furnish food and cover for wildlife and provide greater species diversity (Cook et al. 1974). Of primary concern at final reclamation of the cleaning plant, is to establish "desirable" plant species before weedy species (i.e. Halogeton) become established.

Considerable debate continues over the merits of using introduced plant species for revegetation of semiarid disturbed lands. There is some justification for this opposition, however, condemnation of all is not justified. For example, tall wheatgrass *(Agropyron elongatum)*, has proven superior to many native species on a variety of saline sites throughout the West (Thornberg and Fuch, 1981). One of the aforementioned test plots will be seeded with a select mixture of native and introduced species (see Figure 1 and Table 2). Although results from this test plot will not prove conclusive for all soil types to be reclaimed at the cleaning plant, it will provide an index to explore the species range of adaptation. If results are feasible, additional testing may be warranted.

The principal criteria for species selection includes:

1) Adaptation to existing and predicted environmental extremes.

2) Ease and rate of establishment.

3) Availability of seed.

4) Species that meet post-reclamation needs (palatable and nutritious to wildlife, grazing and watershed value).

5) Plants that are deep rooted and have sod-forming capabilities.

6) Plants that expedite natural plant succession (nitrogen-fixing plants).

7) Plants that are aesthetically pleasing.

Seeding

Drill seeding is still often preferred over broadcast, even though surface manipulations i.e. pits, trenches or basins are used (Cook 1974). Therefore, drilling the seed mixture will be accomplished on the test plots.

Containerized Stocking

Transplanting containerized species will be done on each disturbance type. To monitor success of transplants on each treatment, 2-6 plants per subplot (20 ft by 35 ft) will be transplanted. These containerized transplants will be labeled as to not be confused with seeded plants in the future. Species considered for transplants are marked on Tables 1 - 3.

Mulch

Mulch nearly always shortens the time needed to establish a suitable plant cover (Kaye 1978). Organic

surface mulches conserve moisture, reduce soil temperatures, decreases erosion, decrease evaporation, and can supply organic acids and essential plant nutrients to the soil (Packer and Ald n 1978, Thames 1977, Vories 1976). It is probable that mulching will be necessary to enhance establishment of perennial plant species during final reclamation. Therefore, all test plots will be mulched with straw at the rate of 2,000 lbs/acre and anchored to the ground by a straw crimper.

Fencing

A few cattle, deer, rabbits or other animals could destroy the test plots in a very short period of time. Therefore, all test plots will be fenced in such a manner to preclude livestock and wildlife.

Listed below are several other dry-land reclamation techniques that will be variables in one or more of the reclamation test plots of the Wellington Coal Cleaning Plant properties, These techniques, in conjunction with the aformentioned techniques, should provide valuable information on the most efficient and feasible methods for insuring adequate vegetative cover, diversity and density.

Discontinued Use - Natural Leaching

It is possible that upon termination of the cleaning plant activities, and when the slurry ponds begin to dry, natural leaching of soluble salts will occur.

Topsoiling

The spreading of natural surface soil on spoils has a number of beneficial effects on the revegetation of land. It furnishes nutrients not usually encountered in raw spoils. It provides a source of microbial activity to improve plant-moisture relationships and the soil building process (Packer and Aldon 1978). Furthermore, topsoil has better infiltration and soil stability characteristics.

Upward migration of sodium could be a problem on some sites of the Wellington Coal Cleaning Plant. Current research indicates that sodium can migrate, but may not extend past the bottom few centimeters of the new topsoil (Packer and Aldon 1978). Sandoval et al. (1937) found that in North Dakota as little as 5 cm of good quality topsoil over sodic soils (SAR 25-30) enhanced plant growth and production, increased water infiltration, reduced surface crusting and reduced runoff.

In mined areas of the Western Coal Company spoils near Farmington, New Mexico, plant growth of topsoiled spoils was enhanced when a portion of the borrowed topsoil was

incorporated into the spoils and the top layer of the soils were left unincorporated. Comparisons will be made on the Wellington test plots between topsoiling vs. no topsoiling and differing topsoil depths (see specific plot designs for details). All topsoiling treatments on the test plots will include incorporation of the lower half of the prescribed depth into the spoil material.

Coarse Slurry Coverage

It is hypothesized that at least a 10-18 inch layer of coarse slurry material placed over the slurry pond basin will act as a salt barrier and prevent upward movement of toxic amounts of sodium.

Coarse slurry material coverage will also be tested for effectiveness on the coarse refuse areas. As previously mentioned, this material may prevent loss of topsoil through the void interspaces.

Organic Amendments

Sewage sludge, manure, straw and wood fiber are effective for improving alkaline spoils for plant growth. The organic matter compri ing these amendments can tie up sodium, thereby reducing its availability, and toxicity to plants (Packer and Aldon 1978). Organic amendments also improve soil structure, water holding capacity and provide essential plant nutrients (Donahue et al. 1983, Dean and Skirts 1977, Sutton 1973, Dean and Haven 1971).

Irrigation

The major problem in vegetation establishment on the spoil areas may not be toxicity or the infertility of the spoil materials, but the difficulty of getting moisture into them. An unpredicted spring or summer moisture could easily destroy all chances of plant establishment during reclamation. Perhaps a normal year precipitation is simply not enough to establish vegetative cover on the reclaimed soils. Therefore, a drip irrigation system is proposed as a variable on all test plots.

Possible water sources are of three locations: 1) the cleaning plant system, 2) the Price River or 3) culinary water. Water rights are available if irrigation is proven to be the most feasible route for plant establishment.

A significant innovation in reclaiming sodic and saline-sodic soils is the initial use of "salty" water (Donahue et al. 1983) i.e. the Price River. A high salt content in water keeps sodic soil flocculated, allowing penetration of the leaching waters. Thus, the first water used for leaching may be moderately salty water (Vander Pluym et al. 1973). After most of the exchangeable sodium is removed by the calcium in the salts of the water or from gypsum additions (described later), water of lower salt content may be used for final leaching

(Donahue et al. 1983).

Exact methods and water sources will be identified pending further investigation into the subject. What should be emphasized here is that a form of drip irrigation vs. unirrigated plots will be compared (see Figure 1 - 4). It should be further emphasized that irrigation will be used only as a supplemental source of moisture for *initial* plant establishment. Water will be applied only at 5-10 day intervals during dry periods.

Calcium Sulfate Treatment

It is well documented that calcium sulfate (gypsum, $CaSO_4 \cdot 2H_2O$) can be leached through sodic soils. Calcium solubilized from gypsum replaces sodium, leaving soluble sulfate in water, which is then leached out.

Treatment of calcium sulfate will be implemented on the entire test plot of the slurry pond area. Application rates will be based on the gypsum requirement (GR) formula:

$$GR=(Na_x)\ \begin{matrix}4.50\text{ metric tons of gypsum}\\ \text{per hectare-30 cm}\end{matrix}$$

where Na_x is the milliequivalents of exchangeable sodium to be replaced by calcium from added gypsum (Donahue et al. 1983).

PLOT SAMPLING AND STATISTICAL TESTING

Basically the same sampling methods will be employed that were used in the baseline studies. These methods were described in the "Vegetation and Reclamation of the Wellington Coal Cleaning Plant, Utah" (Collins 1983).

For practicality, the major treatment of the plots i.e. irrigated vs. unirrigated, were placed by stratified means. However, each subplot treatment i.e. organic amendment vs. none, were duplicated 3 times and placed in the plot by random means. A 2 ft buffer space will be placed between all subplots.

Vegetative cover, density, establishment, reproductive success, productivity, germination, and general reclamation success of each treatment will be compared by appropriate analysis of variance, student's t-test (Snedecor and Cochran 1980) and other appropriate statistical procedures.

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TABLE 1: Plant species for the revetation test plots for the Atriplex-Hilaria Community of the Wellington Coal Cleaning Plant.

BOTANICAL NAMES		COMMON NAMES	LBS/ACRE SEEDING RATES*
Grasses			
Agropyron trachycaulum		Slender wheatgrass	2.10
Bouteloua gracilis		Blue grama	.50
Hilaria jamesii		Galleta	1.00
Oryzopsis hymenoides		Indian ricegrass	1.80
Sporobolus airoides		Alkali sacaton	.20
			5.60
Forbs			
Eriogonum umbellatum		Sulphur buckwheat	.25
Melilotus officinalis		Yellow sweetclover	.50
Oenothera caespitosa		Evening primrose	.25
Sphaeralcea coccinea		Globemallow	.25
			1.25
Shrubs			
Artemisia nova		Black sagebrush	.30
Atriplex canescens		Fourwing saltbrush	.50
Atriplex confertifolia	T	Shadscale	.40
Ceratoides lanata	T	Winterfat	.50
Chrysothamnus nauseosus		Rubber rabbitbrush	.20
Ephedra viridis	T	Mormom tea	.30
			2.20
		TOTAL	9.05

SUBSTITUTIONAL SPECIES

Sphaeralcea grossulariaefolia	Gooseberry globemallow
Aster chilensis	Pacific aster
Linum lewisii	Blueflax
Sporobolus cryptandrus	Sand dropseed
Sitanion hystrix	Squirreltail
Artemisia frigida	Fringed sagebrush

* Seeding rates based on drilling 54 PLS/ft^2.
T These species will be transplanted by containerized stock and seeded.

Table 2: Alternate plant species mixture for revegetation test plots for the Atriplex-Hilaria community of Wellington Coal Cleaning Plant.

BOTANICAL NAMES		COMMON NAMES	LBS/ACRE SEEDING RATE*
Grasses			
Agropyron elongatum **		Tall wheatgrass	5.50
Elymus junceus **		Russian wildrye	2.50
Sitanion hystrix		Squirreltail	2.30
Sporobolus cryptandrus		Sand dropseed	.25
			10.55
Forbs			
Glycyrrhiza lepidota		American licorice	1.50
Linum lewisii		Blue flax	.40
Medicago sativa **		Alfalfa	.50
Sphaeralcea grossulariaefolia		Gooseberry globemallow	.25
			2.65
Shrubs			
Artemisia frigida	T	Fringed sagebrush	.10
Artemisia nova	T	Black sagebrush	.50
Atriplex canescens	T	Fourwing saltbrush	.60
Chrysothamnus parryi		Parry rabbitbrush	.60
			1.80
		TOTAL	15.00

SUBSTITUTIONAL SPECIES

Poa secunda	Sandburg bluegrass
Bassia hyssopifolia **	Five-hook bassia
Grayia brandegei	Spineless hopsage

* Seeding rates based on drilling 54 PLS/ft^2.
** Introduced species.
T These species will be transplanted by containerized stock and seeded.

TABLE 3: Plant species for the revegetation test plot for the Greasewood Community of the Wellington Coal Cleaning Plant.

BOTANICAL NAMES		COMMON NAMES	LBS/ACRE SEEDING RATE*
Grasses			
Agropyron dasystachyum		Thickspike wheatgrass	1.50
Agropyron trachycaulum		Slender wheatgrass	1.50
Distichlis spicata		Saltgrass	.50
Elymus cinereus		Great Basin wildrye	.50
Hilaria jamesii		Galleta	1.00
Oryzopsis hymenoides		Indian ricegrass	1.30
Sporobolus airoides		Alkali sacaton	.15
			6.45
Forbs			
Helianthus annuus		Annual sunflower	.66
Linum lewisii		Blue flax	.50
Melilotus officinalis		Yellow sweetclover	.66
			1.82
Shrubs			
Atriplex canescens		Fourwing saltbrush	.50
Atriplex gardneri	T	Gardner saltbrush	.50
Ceratoides lanata		Winterfat	.63
Chrysothamnus nauseosus		Rubber rabbitbrush	.20
Sarcobatus vermiculatus	T	Greasewood	.25
			2.08
		TOTAL	10.35

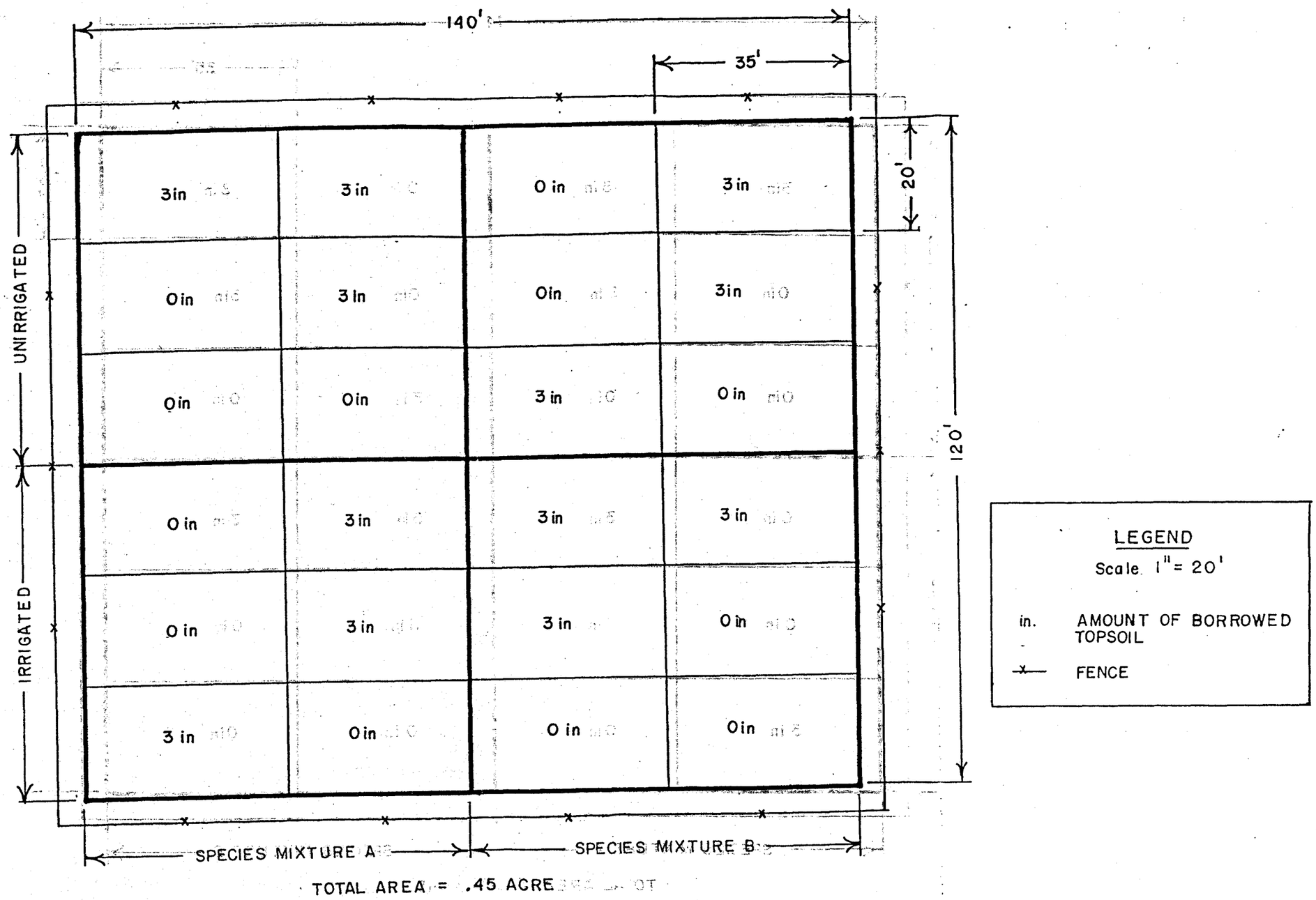
SUBSTITUTIONAL SPECIES

Agropyron smithii		Western wheatgrass
Puccinellia nuttalliana		American alkaligrass
Kochia americana		Green molly
Atriplex cuneata	T	Castle Valley clover

* Seeding rates based on drilling 54 PLS/ft^2.
T These species will be transplanted by containerized stock and seeded.

FIGURE 1

SURFACE FACILITY AREA



LEGEND

Scale 1" = 20'

in. AMOUNT OF BORROWED TOPSOIL

FENCE

NOTE: THE ENTIRE PLOT WILL ALSO BE: 1)RIPPED, 2) FERTILIZED, 3) GOUGED, 4) SEEDED, 5) MULCHED, 6) TRANSPLANTED AND 7) FENCED.

NOTE: THE TEST PLOT WAS INSTALLED AS SHOWN ABOVE.

REVISON (1): 4/10/87 W.B.

prepared by:

MT. NEBO SCIENTIFIC

APPENDIX K

SOILS INFORMATION

TOPSOIL HANDLING PLAN

Topsoil Removal

Prior to the disturbance of any new area the Operator will take adequate soil samples to delineate the physical and chemical properties of the soil covering the area to be disturbed. The following characteristics of the soil will be determined:

1. Depth of the A horizon.

2. Samples will be taken as follows:

   2.1 One composite sample will be taken of the A soil horizon or to a depth of 6 inches, whichever is greater.

   2.2* Additional samples will be taken on approximately 12 inch intervals to a total depth of 30 to 36 inches. Additional samples may be taken if it is necessary to delineate an apparent horizon change in the soil.

   2.3 Each sample will be analyzed for the following parameters:

%Gravel	Texture
%Sand	Phosphorus
%Silt	Potassium
%Clay	%Organic Matter
%Saturation	Calcium
%CaCo3	Magnesium
SAR	Sodium
Nitrogen	pH
Acidity	Electroconductivity
	Alkalinity

The results of the soil sample analysis will be compared against Table IIA to determine the suitability of the soil for use as a topsoil substitute. Soils that rate poor on Table IIA may also be stockpiled if they can be mixed with other nearby soils during salvaging operations to improve problem parameters. Materials that rate fair or good on Table IIA will be stockpiled for use as topsoil during reclamation. As a minimum, soil will be salvaged to the depth of the A horizon or 6 inches, whichever is greater.

*In reviewing the general soil descriptions found on pages 783-38 to 783-38 viii, it appeared that the soils suitable for reclamation would most likely be found less than 30 to

36 inches deep. This depth may be varied as sample data is collected.

The recovery of suitable soil materials from future expansions of the refuse disposal areas and other new disturbances will minimize the deficit of soil cover upon reclamation. A topsoil borrow area will be established in the alluvial fields near the Price River to provide the additional soil needed or reclamation. Refer to Map E9-3339 for the location of the topsoil borrow area. Soil samples of the proposed borrow area have been taken and show that the soil is suitable for reclamation. Additional soil samples have been taken for EC and OM. (Table IIG) These show lower values for OM and higher values for EC than previously reported.

Prior to the start of topsoil salvaging operations, the area to be disturbed will be staked. This will prevent the accidental disturbance of an area not required and will help confine the disturbed area to minimum amount necessary. The Operator's experience at the Wellington Coal Cleaning Plant has indicated a relatively constant soil depth. Therefore, the staking to delineate removal depths will most likely not be necessary. Should a situation arise where it is necessary, the appropriate staking will be provided.

Topsoil (or substitute) removal will be accomplished as follows:

(1) Vegetation will be removed from the topsoil salvage area.

(2) Bulldozers or wheel loaders will be used to salvage the topsoil to the appropriate depth.

(3) The topsoil will be pushed into piles.

(4) Wheel loaders will be used to load the soil into trucks for haulage to stockpiles.

(5) The soil will be stored in accordance with the topsoil storage plan.

An alternate recovery method would be as follows:

(1) Vegetation will be removed from the topsoil salvage area.

(2) A scraper could be used to remove the topsoil and transport it to the stockpile loader.

(3) Store the soil in accordance with the topsoil storage plan.

Storage of Topsoil

Topsoil that is not immediately redistributed will be stockpiled. The stockpiled material will be placed on a stable surface in the permit area as near to the disturbance site as practical. The stockpile will be protected from the wind and water erosion by seeding and the resulting vegetative cover. Seed mixes will be in accordance with Appendix H of the Operation and Reclamation Plan. The stockpiles will be seeded during the September - October planting season. An earth or straw berm will be placed at the toe or base of the stockpile to prevent soil loss due to runoff.

Straw mulch at the rate of 2000 pounds/acre will be applied to future stockpiles. The mulch will be anchored to the soil by crimping or the pile will be covered by netting to prevent loss of the mulch. The netting will be anchored to the soil with pins.

All topsoil storage locations are located on Map E9-3341. Topsoil storage piles will have side slopes not exceeding 2h:1v. The piles will be less than 4 to 5 feet deep. The lateral dimensions will vary as the volume stored increases and decreases.

Signs identifying topsoil storage will be placed on all topsoil stockpiles.

Topsoil Redistribution

1. The area to be reclaimed will be graded to the final contours as described in 784.13 in the Operation and Reclamation Plan. Before redistribution of the topsoil on slopes greater than 5h:1v, the surface will be ripped to a depth of 2 feet to prevent the formation of slippage surfaces between the topsoil and the overburden. Any areas where the overburden is compacted will also be ripped to depth of 2 feet to relieve compaction.

   Ripping will be accomplished using bulldozers with one, two, or three shank rippers (depending on the size of the bulldozer). The material will be ripped by traversing the entire area with the bulldozer with the ripper extended below the surface the proper distance. Each traverse of the bulldozer would be close enough to the previous path to adequately breakup the material being ripped.

2. Topsoil will be redistributed to appropriate depths as specified in the reclamation and revegetation plans (refer to Appendix J and section 784.13 of the ORP).

Discussion in mining of clay and nonclay soils is included in the Topsoil Balance and Soil Suitability section of this appendix. The area on which topsoil has been redistributed will not be unnecessarily traveled by vehicles to prevent compaction of the topsoil. The moisture content of the topsoil will not be redistributed if it has a high moisture content. This will also prevent undue compaction of the topsoil during redistribution.

3. Redistribution of the topsoil will be completed as near to the time of seeding as is practical. Refer to the Revegetation Plan (Appendix J). This will help prevent losses of the topsoil through wind and water erosion before the area is seeded.

4. The area to be reclaimed will be seeded in the fall in accordance with the Revegetation Plan. The topsoil will be covered with straw mulch as is described in the Revegetation Plan. Refer to Appendix J of this document for details. The application of mulch will help prevent the loss of topsoil through wind and water erosion before vegetation establishes itself.

It is anticipated that much of the required topsoil will be salvaged from the topsoil borrow area. Bulldozers will be used to remove the topsoil and push it to a pile. A wheel loader would then be used to load trucks for movement to point of use. The trucks will dump the soil near where it will be redistributed. Bulldozers, motor graders and/or wheel loaders could be used to redistribute the soil to the required depth. In the event the topsoil is being recovered from a stockpile, similar techniques would be used. However wheel loaders would load trucks directly out of the stockpile.

Refer to Appendix D of the Operation and Reclamation Plan for detailed information on the equipment to be used. The anticipated size, model, estimated cost, and quantity for each piece of equipment is described.

Nutrients and Amendments

Soil samples will be taken of the soils to be redistributed at the time of reclamation. The samples will be analyzed for the same parameters listed under Topsoil: Removal of this Appendix. The results of the soil tests will be used to determine the amounts of nutrients and amendments from Division guidelines (if available) or in consultation with the Division (if guidelines are unavailable).

Additional nutrients will be added if nutrient deficiencies develop following reclamation. Plants will be observed for evidence of nutrient deficiencies during post reclamation monitoring. Refer to the Revegetation Plan in Appendix J.

It is anticipated the nutrients would be broadcast as pellets as the topsoil is being distributed. This method will allow the nutrients to be more thoroughly mixed throughout the depth of the soil being redistributed.

Topsoil Balance and Soil Suitability

The Wellington Coal Cleaning Plant was constructed in 1957-1958 and no topsoil was salvaged prior to construction. Expansion of refuse disposal areas since construction has resulted in a large deficit of required topsoil for reclamation vs. topsoil in storage. The topsoil removal plan provides for the sampling of subsoils and criteria for the determination of their suitability for use in reclamation. Soils meeting the criteria of Table IIA will be salvaged for use in reclamation. The salvage of suitable soils from future disturbances will help minimize the deficit at the time of reclamation. Exhibit II A provides a summary of the required volume of topsoil and available topsoil.

Soil samples were taken at various depths at two locations in the Coarse Refuse Pile expansion area (sample locations 9 and 10). The samples taken at location 9 in the SN soil series (refer to Map E9-3339) show very high percentages of clay, refer to Table II D. Table II A indicates that this soil is unsuitable for reclamation. The samples taken at location 10 in the BuB2 soil series range from poor for the upper 6 inches to fair for depths 6 to 32 inches. The upper soil layer at location 10 also has a high clay content but the lower soils have a much lower clay content. It is proposed to salvage 12 inches of the SN soil and 32 inches of the BuB2 soil for use in reclamation of the coarse refuse pile. These soils will reduce the average clay content to 36%.

From Exhibit A it is apparent that it will be necessary to salvage approximately 233,500 cy of soil from the topsoil borrow area. The topsoil borrow area has an area of 81.5 acres (refer to Map E9-3339). Thus it will be necessary to remove soil to an average depth of 1.8 feet in the borrow area.

Soil samples were taken from four locations in the topsoil borrow area, refer to Map E9-3339. Using Table II A, preliminary sampling of the topsoil borrow area indicates high percentages of clay in some samples (see soil samples 7A, 8A, 8B and 11WP).

The clay soils could require mixing with soils that contain less clay to insure greater chance of revegetation success at the time of final reclamation.

After reviewing results from previous soil analyses and on-site field inspections of the topsoil borrow area by representatives of U.S. Steel (Dr. P.D. Collins, V.R. Watts, B.A. Filas) and the Division of Oil, Gas and Mining (T. Portle, L. Kunzler), it is believed that the clay textured soils are contained in a relatively small proportion of the borrow area. This area is located near soil sample locations 8 and 11WP. However, to more adequately outline the parameters of the clay soils, more soil sampling will be conducted.

Soil Sampling Techniques

Soil sampling to ascertain the extent and the trends of the topsoil will be conducted at the time of reclamation (prior to use). A grid system will be implemented and sample locations placed regularly to identify textural trends. A total of 9-12 sample locations will be placed on the grid. These soil samples will be taken at each sample location at 0-6, 6-18 and 18-33 inch depths. Soil texture analyses will be run and reported on the soil samples.

When soil sampling and analyses are complete, approximate trends, calculations will be made on total volumes of clay soils for proper mixing at the time of final reclamation.

Soil Mixing Techniques

As mentioned above, the proportion of clay soils to nonclay soils is expected to be relatively small. At the time of final reclamation the clay soils will be marked appropriately as to be identified by the heavy equipment operators. This will enable proper mixing of the soil types for final seedbed preparations. To begin, volumes and proportions will have been adequately calculated to insure proper results from mixing of the soil types. Mixing techniques will insure at least "fair" suitability levels of the growing media are obtained. The clay soils will be transported first followed by appropriated volumes of the more desirable borrowed topsoil. This method should allow flexibility in the transportation techniques. Clay soils would be transported in alternate loads or all at once depending on practicality during the final reclamation operation. An attempt will not be made however, to deposit a given depth of the clay soils over the entire area to be revegetated. The clay soils will be deposited as it is practical. Volumes per given area is, of course, dependant on the ratio of clay vs. nonclay soils that will be ascertained from the described soil sampling procedures.

Following distribution of the clay soils that are overlain with nonclay soils, the areas will be disked (or otherwise tilled) to adequately mix the two soil types. This should allow conditions for adequate seedbed growing media. Subsequent reclamation techniques are somewhat dependant on results from the revegetation test plots that are presently being evaluated.

The reclamation plan proposes to use the in-place soils for reclamation in disturbed areas not covered by refuse. Test plots are being used to demonstrate the soil suitability for reclamation. Refer to Appendix J for details. In the event the test plots fail; a three inch soil cover has been provided in Exhibit II A.

The reclamation plan proposes to cover the refuse areas with soil (refer to Revegetation Plan Appendix J) prior to revegetation. The Operator has installed test plots to demonstrate the viability of the reclamation method and the soil suitability. Refer to Appendix J for details.

Roadside Spoil Pile II Stabilization Plan

The stabilization plan outlined in Susan Hasenjager's and Carl Winters' letters dated 11/10/86, Page II-7A, and 2/24/87, Page II 7B, respectively, is the accepted method to stabilize the Roadside Spoil Pile II.

KAISER COAL

KAISER COAL CORPORATION
Sunnyside Coal Mines
P.O. Box 10
Sunnyside, Utah 84539
Telephone (801) 888-4421

February 24, 1987

Mr. Lowell P. Braxton, Administrator
Mineral Resource Development & Reclamation Program
Utah Division of Oil, Gas & Mining
355 W. North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Re: Spoil Pile II - Samples
Wellington Preparation Plant
ACT/007/012

Dear Mr. Braxton:

As agreed by Kaiser and the Division, soil samples of Spoil Pile II have been collected and analyzed. The purpose of the sampling program was to verify the presence of poor quality soils on the spoil pile. The samples were collected in a manner desired by Ms. Susan Linner and Mr. James Leatherwood of your office.

A gasoline-powered auger was used to drill the sampling holes. Sample depths vary from those requested due to problems with either hitting rocks in the holes or intersection of a stratum which the auger could not penetrate. All holes were drilled to the maximum possible depth. The depth variations have been discussed with and verbally approved by Mr. Leatherwood. Analyses of the samples are attached as is a copy of Map C4-0071 showing the sampling hole locations and depths.

Additionally, three samples were collected from soils near the spoil pile. These samples were gathered to assist in determining whether poor quality soils were surficial or buried. Attached analyses of these samples indicate that the soil quality problems found in the spoil pile stem principally from buried soils elevated to the surface during construction of the adjacent Road Pond.

Sincerely,

Carl W. Winters
Senior Mining Engineer

attach

cc: B. J. Bourquin

UTAH STATE UNIVERSITY • LOGAN, UTAH 84322
UMC 48
Telephone (801) 750-2217

Soil, Plant and Water
Analysis Laboratory

February 20, 1987

Carl Winters
Kaiser Coal Corp.
Sunnyside, Utah 84539

Samples received February 9, 1987.

USU No.	Identification	pH	mmhos /cm ECe	SAR	me/l - H_2O Sol. Ca	Mg	Sodium	S.P.*
87-181	Spoil pile 2 #1	8.3	18.0	40	22.3	21.4	187	49.9
87-182	Spoil pile 2 #2	8.3	15.8	33	23.3	23.1	157	44.4
87-183	Spoil pile 2 #3	8.2	13.8	28	24.4	20.3	133	41.2
87-184	Other #1	8.2	1.2	5.9	3.50	1.17	9.0	38.7
87-185	Other #2	8.2	3.6	3.9	28.0	8.22	16.4	39.8
87-186	Other #3	7.9	4.3	4.7	29.7	14.6	22.1	39.8

* Saturation Percentage

K. Topper

Susan D. Hasenjager **permitting/environmental consultant**
9337 W. Iowa Ave.
Lakewood, Colorado 80226

November 10, 1986

Susan Linner
Permit Supervisor
State of Utah Natural Resources
Oil, Gas and Mining
355 W. North Temple
3 Triad Center, Ste. 350
Salt Lake City, Utah 84180-1203

RE: Wellington Coal Cleaning Plant Soil Samples and Reclamation of Spoil Pile

Dear Ms. Linner:

The purpose of this letter is to transmit certain soil analyses to the Division, and to recommend based on these data that non-vegetative measures be employed to stabilize the spoil pile located near the Wellington Preparation Plant. Per the DOGM's request, temporary vegetative reclamation of this area is scheduled for the week of November 10, 1986. However, it is Kaiser's concern that vegetative stabilization of this site will be unsuccessful due to high sodium and SAR values, and that increased erosion will occur as a result of the attempted reclamation. Consequently, Kaiser objects to vegetative stabilization of the site, and recommends that the already regraded pile be further stabilized by constructing a berm at the base of the pile to control runoff. It is further recommended that seeding of this area not occur at this time. Kaiser requests that this alternative stabilization method be approved by DOGM. I discussed this matter with James Leatherwood on November 10, 1986.

Please find enclosed a copy of the analyses for soil samples that were collected at the Wellington Plant in early September, 1986. A continuous, one quart composite sample was obtained from each site to be reclaimed by sampling three to five holes, 0 to 16" deep. Each sample was collected for the individual specific area requiring temporary reclamation; these areas are identified as Samples # 1 through 6.

Sample #	Site Location
#1	Spoil pile located near preparation plant, 0-8" depth
#2	Rock gabeon and catchment pond, on slurry pond side of river. 0-12" depth
#3	Topsoil stockpile, 0-14" depth
#4	Subsoil stockpile, 0-14" depth
#5	Sauerman Dragline tail tower, 0-12" depth
#6	Roadside on way to rock gabeon and catchment pond, 0-16" depth

The spoil pile has been regraded such that the slope is relatively flat; a majority of the pile is probably between 4 or 5h: 1 v, with the steepest portion being approximately 2.5 or 3 h: 1 v. Currently, the area shows no signs of erosion, and appears to be quite stable. Permanent reclamation of this pile will include replacement of the material into the excavated pit, topsoiling, and revegetation utilizing the permanent seed mix.

The DOGM has requested that Kaiser temporarily reclaim the spoil pile area utilizing the mix approved for the fall 1986 seeding. However, the soil sampling results for the spoil pile, Sample #1, indicate very high pH, conductivity, sodium, and SAR values. Consequently, it is Kaiser's concern that if reclamation is attempted on this material without topsoiling or other extensive soil modification such as leaching, any vegetative establishment is extremely unlikely. It should be further noted that prior to reclamation, the area would require deep ripping and scarification, thereby significantly increasing erosion and runoff on this site. Additional questions concerning stabilization and erosion control, would likely arise as a result of this procedure.

Because vegetative stabilization of the site is highly unlikely, Kaiser recommends that in addition to the already completed regrading, the site be further protected by constructing a berm around the base of the pile to contain runoff. This protection would remain in place until final reclamation. Seeding of the pile would not occur at this time. However, if the pile exhibits erosion or other problems prior to final reclamation, Kaiser will utilize soil modification techniques, chemical stabilizers, or reclamation in order to achieve temporary stabilization. Kaiser feels that this proposed procedure would provide for protection of the site, and prevent runoff contamination of the surrounding area.

Kaiser requests that DOGM approve this non-vegetative, temporary stabilization procedure for the spoil pile. We would appreciate any additional comments or suggestions that the Division may have concerning this matter or any other reclamation measures which may be appropriate for the property.

If you have any questions concerning this proposal please feel free to contact either Brad Bourquin, Sunnyside Mines new Chief Engineer, or myself. Thank you for your assistance.

Sincerely,

Susan D. Hasenjager
Permitting/Environmental
Consultant

cc: Brad Bourquin
Marty Holmes

EXHIBIT II A

REQUIRED VOLUME OF TOPSOIL

Location	Area (Acres)	Depth (ft.)	Volume (CY)
Coarse Refuse Pile	19.3	1.0	31,000
Refuse Pond Area	235.3	0.5	190,000
Clear Water Pond	24.4	0.25	10,000
Misc. Areas East of Price River	7.2	0.25	3,000
Main Plant & Misc. Areas	113.9	0.25	45,000
Topsoil Borrow Area	68.9	--	--
Total	469		279,000

AVAILABLE VOLUME OF TOPSOIL

Location and Source	Volume (CY)
Existing Storage Piles	
West of Upper Refuse Pond (Sauerman)	500
North of Refuse Disposal Area (Topsoil and Subsoil)	6,000
Total	6,500
Future Storage Piles	
Main Plant Area - Extend Coarse Refuse Pile (SN)	7,400
Main Plant Area - Extend Coarse Refuse Pile(BuB2)	21,700
West of Upper Refuse Pond - Extend Upper Refuse Pond	10,000
Total	39,100
Total Available at Reclamation	45,500
Amount Required from Topsoil Borrow Area	233,500

Rev. 2-11-85

Table II A - Soil Material Suitability for Salvage and Reclamation Use

Definition: Suitability, as defined, is the qualities and properties of natural soils or soil material that chemically and physically provide the necessary water and nutrient supply for the top growth and root development of plants.

Criteria: The following groups of ratings are indicators of potential quality of natural soil profiles, certain soil horizons, or the underlying parent material, disregarding nutrient levels.

LEVELS OF SUITABILITY(1)

Major Parameters	Good	Fair	Poor	Unsuitable
USDA soil texture	Fine sandy loam, very fine sandy loam, loam, silt loam, sandy loam	Clay loam, sandy clay loam, silty clay loam	Sandy, loamy sand, sandy clay, silty clay, clay	Clay textured soils with more than 60% clay
Salinity (mmho/cm)	Less than 3	3-6	6-9	More than 9
Alkalinity (exchangeable sodium percentage, ESP)	Less than 4	4-8	8-12	More than 12
	Very low	Low	Moderate	High
Concentration of toxic or undesirable elements, i.e., boron, selenium, arsenic, % lime, etc.				ppm B > 8 Cd > 0.1-1.0 Cu > 40 Fe Pb > 10-20 MN > 60 Hg > 0.4-0.5 Mo > 0.3 Ni > 1.0 Se > 2.0 Zn > 40.0
Soil pH	6.1 - 7.8	5.1 - 6.1 7.9 - 8.4	4.5 - 5.0 8.5 - 9.0	Less than 4.5 More than 9.1
Additional parameters to be evaluated				
Moist consistency	Very friable, friable	Loose, firm	Very firm, extremely firm	
Coarse fragments, % by volume	0 - 10	10 - 20	20 - 35	More than 35
Available water - retention capacity (inch/inch)	More than 0 - 16	0.08 - 0.16	Less than 0.8	
Permeability (inch/hr)	0.6 - 6.0	0.2 - 0.6	Less than 0.2 or greater than 6.0	
Organic matter (%)	More than 1.5	0.5 - 1.5	Less than 0.5	
Soil structure	Granular, crumb	Platy, blocky, prismatic	Massive, single grain	

(1) Ratings may be raised one class if soil amendments or management practices can be applied to overcome limitations.

TABLE II B

SOIL SAMPLES

Sample No.	Location	Depth Inches	Comments
1A	Near Permanent Diversion	0-6	Inc. A Horizon
1B		6-12	
1C		12-18	
1D		18-24	
2A	Near Lower Refuse Dike	0-6	Inc. A Horizon
2B		6-12	
2C		12-18	
3A	South of Plant	0-12	Disturbed Area
4A	Near River Pumphouse	0-12	Disturbed Area
5A	Topsoil Borrow Area-North	0-10	A Horizon
5B		10-22	
5C		22-34	
6A	Topsoil Borrow Area-South	0-10	A Horizon
6B		10-18	
6C		18-25	
6D		25-35	
7A	Topsoil Borrow Area-East	0-12	A Horizon
7B		12-24	
7C		24-33	
8A	Topsoil Borrow Area-West	0-13	A Horizon
8B		13-24	
8C		24-30	
9A	Near Coarse Refuse Pile	0-6	Inc. A Horizon
9B		6-18	
9C		18-32	
10A	Near Coarse Refuse Pile	0-6	Inc. A Horizon
10B		6-18	
10C		18-24	
10D		24-32	

NOTE: Refer to Map E9-3339 for soil sample locations

TABLE II C

SOIL SAMPLE ANALYSES

	near permanent diversion				near lower refuse like		
	1A	1B	1C	1D	2A	2B	2C
1 - Clay %	5.00	4.60	5.40	1.30	2.50	4.10	3.50
1 - Gravel %	<.01	<.01	<.01	<.01	<.01	<.01	<.01
1 - Sand %	65.00	66.87	66.90	70.20	75.00	74.10	74.20
1 - Silt %	30.00	28.60	27.70	28.50	22.50	21.80	22.30
Acidity as CaCO3 mg/l	120.00	<.01	<.01	<.01	50.00	<.01	<.01
Alkalinity as CaCO3 ppm	640	360	520	520	440	400	480
Calcium as Ca ppm	328.00	160.00	208.00	216.00	240.00	216.00	304.00
Conductivity mmhos/cm	1.450	0.800	0.800	0.800	1.100	1.050	1.200
Magnesium as Mg ppm	57.60	33.60	43.20	67.20	48.00	28.80	81.60
Phosphorus as P ppm	6.90	5.10	4.80	3.80	4.20	3.80	4.20
Sodium Absorption Ratio	5.048	9.233	6.922	5.881	5.951	7.126	5.234
Sodium as Na ppm	377	492	420	386	386	420	398
Texture	SL	SL	SL	SL	LS	LS	LS
Total Kjeldahl Nitrogen ppm	.36	1.15	.65	.91	.89	1.05	.80
pH Units (1:1 Ratio) SM424	7.40	8.30	8.40	8.30	7.80	8.20	8.40
Depth	0-6"	6-12"	12-18"	18-24"	0-6"	6-12"	12-18"

SL - Sandy Loam
LS - Loamy Sand

TABLE II D

Soil Sample Analyses

	3A	4A	5A	5B	5C	6A
1-Clay %	26	1	24	10	4	21
1-Gravel %	<1	<1	<1	<1	<1	<1
1-Sand %	5	95	4	66	75	6
1-Silt %	69	4	72	24	21	73
Calcium Carbonate %	11.22	9.10	15.65	11.97	12.92	13.27
Calcium as Ca %	4.490	3.640	6.260	4.790	5.170	5.310
Conductivity mmhos/cm @ 25	3.70	.50	2.30	1.90	1.90	.02
Magnesium as Mg ppm	7,553.00	7,780.00	14,300.00	12,200.00	12,557.00	12,607.00
Nitrogen as N2 %	.01	.02	.03	.02	.02	.05
Organic Material % (WD)	9.80	20.40	17.60	19.50	11.30	10.40
Phosphorus as P ppm	1,010.00	648.20	1,019.50	954.40	866.60	1,086.20
Potassium as K ppm	2,163	680	2,158	1,084	1,045	1,575
Saturation %	31.40	25.80	24.10	21.90	31.70	20.80
Sodium as Na ppm	3,943	812	2,090	1,428	1,444	673
Texture	Silt Loam	Sand	Silt Loam	Sandy Loam	Sandy Loam	Silt Loam
pH Units (1:1 Ratio) SM423	8.00	8.90	8.00	8.30	8.10	8.20

	6B	6C	6D	7A	7B	7C
1-Clay %	21	22	35	42	24	19
1-Gravel %	<1	<1	<1	<1	<1	<1
1-Sand %	4	6	53	22	40	3
1-Silt %	75	72	12	36	36	78
Calcium Carbonate %	13.30	12.30	14.60	14.57	10.85	13.62
Calcium as Ca %	5.320	4.920	5.840	5.830	4.340	5.450
Conductivity mmhos/cm @ 25	.03	.05	.60	1.30	.20	.20
Magnesium as Mg ppm	12,024.00	12,268.00	14,440.00	13,060.00	10,964.00	13,893.00
Nitrogen as N2 %	.06	.02	.05	.07	.01	.03
Organic Material % (WD)	8.10	10.50	7.50	8.50	6.30	6.60
Phosphorus as P ppm	1,260.70	1,068.40	1,133.20	1,089.10	924.10	1,003.90
Potassium as K ppm	1,768	1,430	2,615	2,079	68	82
Saturation	35.10	24.90	30.70	31.20	28.90	30.80
Sodium as Na ppm	712	643	945	768	635	660
Texture	Silt Loam	Silt Loam	Sandy Clay	Clay	Loam	Silt Loam
pH Units (1:1 Ratio) SM423	8.20	8.20	7.90	7.80	8.30	8.20

TABLE II D continued

Hogpen Canyon area-west

Near Coarse Refuse pile

	8A	8B	8C	9A	9B	9C
1-Clay %	55	45	33	88	65	90
1-Gravel %	<1	<1	<1	<1	<1	<1
1-Sand %	10	19	21	2	10	4
1-Silt %	35	36	46	10	25	6
Calcium Carbonate %	14.67	15.77	17.07	10.67	21.97	9.60
Calcium as Ca %	5.870	6.310	6.830	4.270	8.790	3.840
Conductivity mmhos/cm @ 25	.29	1.50	1.90	.20	.20	1.70
Magnesium as Mg ppm	13,619.00	12,786.00	12,760.00	8,113.00	7,554.00	8,342.00
Nitrogen as N2 %	.05	.06	.01	.05	.01	.02
Organic Material % (WD)	10.30	8.90	9.20	7.70	12.30	7.60
Phosphorus as P ppm	960.60	984.70	973.60	950.04	849.60	925.00
Potassium as K ppm	240	329	355	184	157	215
Saturation %	33.40	28.60	24.10	30.40	24.90	20.70
Sodium as Na ppm	759	868	1,055	666	735	1,826
Texture	Clay	Clay	Clay Loam	Clay	Clay	Clay
pH Units (1:1 Ratio) SM423	8.00	7.90	7.90	8.20	8.60	8.00

Near Coarse Refuse pile

	10A	10B	10C	10D
1-Clay %	42	7	20	14
1-Gravel %	<1	<1	<1	6
1-Sand %	25	42	15	45
1-Silt %	33	51	65	30
Calcium Carbonate %	14.00	14.35	12.52	21.15
Calcium as Ca %	5.600	5.740	5.010	8.460
Conductivity mmhos/cm @ 25	.50	.60	.50	2.10
Magnesium as Mg ppm	6,756.00	6,683.00	6,788.00	7,792.00
Nitrogen as N2 %	.03	.05	.02	.06
Organic Material % (WD)	5.50	6.80	8.90	11.40
Phosphorus as P ppm	923.80	852.70	857.70	786.00
Potassium as K ppm	143	144	1,779	958
Saturation %	19.70	30.60	28.70	29.50
Sodium as Na ppm	344	595	730	1,284
Texture	Clay	Silt Loam	Silt Loam	Loam
pH Units (1:1 Ratio) SM423	8.40	8.00	8.00	7.90

TABLE II E

The following provides the soil sample designation and description of location taken. Refer to Map E9-3339 for sample locations and Table II E for sample results.

1WT Topsoil from Atriplex-Hilaria vegetation sampling community.

2WD Disturbed soils from upper slurry (settling) pond basin.

3WS Subsoil (depth = 1 ft.) from an Atriplex-Hilaria vegetation community.

4WS Subsoil (depth = 6 ft.) from an Atriplex-Hilaria vegetation community.

5WS Subsoil (depth = 12 ft.) from an Atriplex-Hilaria vegetation community.

6WD Refuse material where Halogeton glomeratus plants were established.

7WT Topsoil of an Atriplex-Hilaria plant community.

8WT Topsoil from an Atriplex corrugata vegetation community.

9WD Lower slurry pond basin.

10WT Topsoil from an Artemisia-Hilaria vegetation community.

11WP Topsoil from the pastureland.

12WD Disturbed soils from an Atriplex-Hilaria vegetation community.

TABLE II F

Soil laboratory report for the Wellington Coal Cleaning Plant area.*

SAMPLE	Cat.ExC.	%N	Sand	Clay	Silt	SAR	$\%CaCO_3$	%Saturation
1 WT**	9.49	.074	49.2	27.2	23.4	.693	18.19	25.00
2 WD	67.67	.478	36	39.1	24.8	22.0	9.10	78.90
3 WS	7.10	.021	68	15.2	16.7	1.14	24.10	22.00
4 WS	11.6	.023	49.2	23.1	27.6	10.9	5.91	31.50
5 WS	87.38	.036	19.2	57.1	23.6	8.13	6.37	108.9
6 WD	15.60	.121	47.2	25.2	27.4	.705	12.73	32.20
7 WT	12.2	.073	43.2	31.2	25.4	.479	25.47	32.70
8 WT	43.4	.064	18	59.1	22.8	61.7	23.63	57.30
9 WD	57.7	.030	42	23.8	34.1	59.5	8.19	69.10
10WT	17.4	.039	25.4	35.8	38.7	1.31	10.46	38.10
11WP	54.1	.213	18.7	37.8	43.4	1.39	21.83	58.20
12WD	36.2	.060	42.7	33.8	23.4	2.21	23.20	33.60

* Physical and chemical analyses were done at the Brigham Young University Soil Laboratory, Department of Agronomy and Horticulture.

**Letter descriptions: W=Wellington, T=Topsoil, D=Disturbed soil, S=Subsoil and P=Pastureland soil.

Reproduced from Appendix H of the Operation and Reclamation Plan

Table II F (continued)

SAMPLE	PPM P	PPM K	% OM	PPM Ca	PPM Mg	PPM Na	pH	$EC \times 10^3$	PPM NO_3-N
1 WT	9.91	251.	1.23	81.4	12.9	25.6	8.3	.758	3.74
2 WD	3.99	232	6.85	262.	1128	3712	8.3	19.9	2.88
3 WS	2.34	20.8	.424	40.1	29.6	39.3	8.6	.612	1.50
4 WS	1.89	38.4	.668	310.	712	1536	7.3	11.1	3.16
5 WS	72.5	220.	.186	270.	2304	1896	5.6	7.2	44.8
6 WD	3.28	160.	6.82	473.	128	67.2	6.7	3.41	10.2
7 WT	10.1	345.	1.29	112.	12.4	20.1	7.7	.935	13.6
8 WT	9.09	260.	.753	285.	64	4448	7.9	17	9.47
9 WD	3.99	377.	6.82	178.	8960	26624	8.5	75	6.04
10WT	5.96	254	1.43	164.	10.8	64.4	7.9	1.36	8.57
11WP	17.7	224	5.61	209.	88	95.5	7.6	2.39	8.92
12WD	11.0	353	.210	67.3	12.4	75.6	8.5	.983	9.84

TABLE II G

Wellington Coal Cleaning Plant

Soil Samples

Sample	OM	EC
3A	2.24	19.00
4A	1.33	17.60
5A	1.59	18.00
5B	1.29	15.50
5C	1.32	10.00
6A	2.07	1.37
6B	1.35	4.70
6C	1.59	7.00
6D	1.64	7.20
7A	2.61	2.68
7B	1.31	1.57
7C	0.91	2.50
8A	2.52	1.14
8B	1.86	3.20
8C	1.22	4.40
9A	1.97	8.20
9B	0.85	14.20
9C	0.83	17.50
10A	0.88	15.70
10B	0.63	21.00
10C	0.71	15.40
10D	0.74	18.40

ACZ INC./LABORATORY DIVISION
SOILS ANALYSES REPORT

Client: Kaiser Coal Company
Sunnyside Mine
Sunnyside, Utah 84539
Attn: Mr. Doug Pearce
CC: Ms. Susan Hasenjager

Report Date: October 10, 1986
Date Received: September 15, 1986

LAB NO.	SAMPLE I.D.	SAMPLE DATE	Saturation %	pH 1 (units)	Conductivity 1 (mmhos/cm @ 25 C)	Calcium 1 meq/l	Magnesium 1 meq/l	Sodium 1 meq/l	Boron 2 mg/kg	SAR	Selenium 2 mg/kg	Nitrogen, 2 Nitrate mg/kg	Phosphorus 3 mg/kg	Potassium 3 mg/kg	Neutralization Potential as CaCO3 %
86-1239-Soil	Wellington #1	Unknown	42	8.7	16.8	24.4	20.3	196	1.9	41.5	.03	24.9	68.0	35	13.6
86-1240-Soil	Wellington #2	Unknown	33	7.8	3.08	26.5	13.4	7.44	1.1	1.67	-.01	2.5	2.2	45	13.8
86-1241-Soil	Wellington #3	Unknown	39	7.7	6.00	29.6	8.38	43.6	0.8	10.0	-.01	38.6	10.2	65	5.5
86-1242-Soil	Wellington #4	Unknown	38	7.8	1.66	8.95	3.23	9.46	0.9	3.83	-.01	15.2	12.7	80	6.8
86-1243-Soil	Wellington #5	Unknown	44	7.7	2.95	29.4	7.87	9.84	1.3	2.28	.01	4.2	1.8	50	12.7
86-1244-Soil	Wellington #6	Unknown	38	7.7	3.12	26.5	12.0	11.7	1.4	2.67	-.02	0.2	0.2	30	11.3

LAB NO.	SAMPLE I.D.	SAMPLE DATE	Organic Matter %	Sand %	Silt %	Clay %	Texture
86-1239-Soil	Wellington #1	Unknown	0.4	34	38	28	CL
86-1240-Soil	Wellington #2	Unknown	0.9	56	23	21	SCL
86-1241-Soil	Wellington #3	Unknown	0.8	37	40	23	L
86-1242-Soil	Wellington #4	Unknown	1.0	39	39	22	L
86-1243-Soil	Wellington #5	Unknown	1.0	34	26	40	C,CL
86-1244-Soil	Wellington #6	Unknown	0.4	56	20	24	SCL

1 Saturated Paste Extraction 2 Hot Water Extraction 3 AB-DTPA Extraction

Ralph V. Poulsen
Ralph V. Poulsen, Director

KAISER COAL COAL COMPANY
WELLINGTON PREP PLANT
CARBON COUNTY, UTAH
ACT/007/012

VOLUME 2
OPERATIONS & RECLAMATION PLANS
APPENDICES A-F

APPENDIX A

PERMITS AND VIOLATIONS

This Appendix contains a list of permits and a violation history for applicant, applicant's principal share holder and/or applicant's affiliate corporations.

Applicant, applicant's principal shareholder and/or applicants affiliate corporations currently hold the following approved coal mining permits.

Sunnyside Mines
Carbon County Courthouse
Permit No. ACT/007/007
State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining

Permit Approved, January 6, 1986

Horse Canyon Mine (inactive)
Carbon County Utah
Permit Number ACT/007/013
State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining

Interim Program Permit Approved, May 11, 1978

York Canyon Underground Mine
Colfax County New Mexico
Permit No. 11
State of New Mexico
Energy and Minerals Department
Mining and Minerals Division

Interim Program Permit Approved, January 8, 1979. A new application under the permanent regulations has been filed, determined complete, and is pending.

West Ridge Mine
Colfax County New Mexico
Permit No. 1-A-2
State of New Mexico
Energy and Minerals Department
Mining and Minerals Division

Permit Approved, June 25, 1986

Chimney Rock Mine (inactive)
Archuletta County Colorado
Permit No. C-023-81
State of Colorado
Department of Natural Resources
Colorado Mined Land and Reclamation Division

Permit Approved, January 1983

Colorado Coal Mine No. 1 (inactive)
Huerfano County Colorado
Permit No. C-024-81
State of Colorado
Deparment of Natural Resources
Colorado Mines Land and Reclamation Division

Permit Approved, March 1984

Potato Canyon Exploration Mine
Permit No. E-3
Colfax County New Mexico
State of New Mexico
Energy and Minerals Department
Mining and Minerals Division

Permit Approved, October 30, 1979

Cimmaron Underground Mine
Permit No. A23-8P
Colfax County New Mexico
State of New Mexico
Energy and Minerals Department
Mining and Minerals Division

Permit Approved, September 30, 1985

Ancho Canyon Exploration Mine
Permit No. 28
Colfax County New Mexico
State of New Mexico
Energy and Minerals Department
Mining and Minerals Division

Permit Approved, April 14, 1982

Somerset Mine (inactive)
Permit No. C-022-81
Delta and Gunnison Counties Colorado
State of Colorado
Mined Land Reclamation Division

Permit Approved, October 11, 1983

Wellington Coal Preparation Plant (inactive)
Permit No. ACT/007/012
Carbon County Utah
State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining

Permit Approved, December 30, 1985

COMPLIANCE INFORMATION - COLORADO

Kaiser Steel Corporation Chimney Rock Coal Mine Archuleta County, Colorado	Regulatory Authority State of Colorado Department of Natural Resources Mined Land Reclamation Division Denver, Colorado

NOTICE OF VIOLATION 83-5 (2/83)

Failure to submit the information required by Stipulations 13, 20, and 22 by the required time frames. The information was due February 6 and was submitted February 9.

Assessment conference held 4/14/83.
$1,050 penalty assessed.
Terminated.

NOTICE OF VIOLATION 83-6 (2/83)

Failure to adequately mark the permit boundary. As a result, surface coal mining operations were being conducted outside of the approved permit area. The area was flagged off and equipment kept out. Disturbance was on a rocky area, so as to keep it to a minimum.

Assessment conference held 4/14/83.
$1,100 penalty assessed.
Terminated.

NOTICE OF VIOLATION 83-10 (3/83)

Operator failed to comply with the terms of the approved permit. Specifically, sedimentation pond 004 was constructed closer to the ephemeral drainage channel than approved. The toe of the outslope of the embankment is less than 4 feet from the centerline of drainage. The pond has been reconstructed so that the outside toe of the west embankment is 40 feet from the centerline of ephemeral drainage channel.

$900 penalty assessed.
Terminated.

NOTICE OF VIOLATION 83-40 (8/83)

Operator augered coal beyond permit boundary. One hole was approximately 10 feet to 20 feet beyond line.

$800 penalty assessed.
Terminated.

NOTICE OF VIOLATION 83-29 (10/83)

Issued for failure to provide documentation that adequate bonding will be available for the mine site past the expiration date of the existing bond.

No penalty assessed.
Abated 11/9/83.

NOTICE OF VIOLATION C-84-14 (2/16/84)

Act Section(s) 34-33-120(2)(e)
Regulation Section(s) 4.06.1 and 4.06.4(2)(b)

Failure to protect topsoil and failure to follow approved mine plan. Specifically a portion of the southern half of the east pit which has been topsoiled and seeded during the fall of 1983, subsequently had spoil material placed over it which compacted and contaminated the topsoil.

Assessment conference held 4/3/84.
$1,100 penalty assessed.
Abatement plan submitted to the Division on 3/2/84.
Terminated 5/30/84.

NOTICE OF VIOLATION C-84-21 (2/16/84)

Act Section(s) 120(2)(e)
Regulation Section(s) 4.06.3(2)(b)

Moving a soil stockpile without Division approval. Specifically the stabilized and revegetated stockpile west of Sediment Pond No. 002 was moved to a location on top of the graded fill in the east pit area.

Informal hearing held 4/3/84.
$2,175 penalty assessed.
Abatement plan submitted to Division on 3/16/84.
Terminated.

NOTICE OF VIOLATION C-84-022 (2/16/84)

Permit Section(s) Sec.2.05 of Permit Revision No. 1

Failure to follow approved mine plan. Specifically fill material was placed to a depth of about 9 feet in an area of approximately 340 by 150 feet by 350 feet by 180 feet. The filled area was located adjacent to and west of Sediment Pond No. 002 in an alluvial valley floor.

Informal hearing held 4/3/84.
$2,912.50 penalty assessed.
Abatement plan submitted to the Division on 3/16/84.
Terminated 6/7/84.

NOTICE OF VIOLATION CV-84-024 (3/8/84)

Act Section(s) 120(2)(j)
Regulation Section(s) 4.05.4

Relocation of the stream channel for Stollsteimer Creek without approval by the Division.

An abatement letter sent to the Division on 3/16/84.
An informal hearing held on the site on 4/3/84.
$2,800 penalty assessed.
Terminated 6/6/84.

NOTICE OF VIOLATION CV-84-025 (3/8/84)

Act Section(s) 120(2)(e)
Regulation Section(s) 4.06

Failure to salvage stockpile, and protect topsoil as required.
An abatement letter was submitted to the Division on 3/16/84.

$2,225 penalty assessed.
Terminated 6/6/84.

NOTICE OF VIOLATION CV-84-026 (3/8/84)

Act Section(s) 129(2)(j)(II)
Regulation Section(s) 4.05.5

Failure to provide an adequate and functional sediment control system.

An abatement plan was submitted to the Division on 3/16/84.
$650 penalty assessed.
Terminated 6/6/84.

NOTICE OF VIOLATION C84-156 (8/23/84)

Regulation Section(s) 4.08.4(2)

Blasting outside times announced in published blasting schedule specifically at 8:20 a.m. on 8/2/84. Schedule called for blasting 1/2 hour from 10 a.m. to 7 p.m.

Assessment conference held 10/2/84.
$1,100 penalty assessed.
Terminated 10/15/84.

NOTICE OF VIOLATION C-84-171 (11/27/84)

Act Section(s) 34-33-123(2)
Regulation Section(s) 5.03.2(2)(a)

Failure to follow the approved permit in that subsoil from in place subsoil salvage area F was removed and placed in an unapproved location (the east pit). This material was approved to be placed on the facilities area and on Barren Ridge, but not on the East Pit.

Abatement plan submitted 12/20/84.
$1,350 penalty assessed.
Terminated 12/31/84.

NOTICE OF VIOLATION C-85-087 (12/13/85)

Act Section(s) 33-34-120(2)(x)
Regulation Section(s) 4.05.18(1)

Surface disturbance within 100 feet of a perennial stream. Pit trenched into the creek alluvium.

NOV was abated prior to 3/13/86 deadline.
$1,000 penalty assessed.
Terminated 1/21/86.

NOTICE OF VIOLATION C-86-055 (07/08/86)

Act Section(s) 34-33-120(2)(j)(II)(A)
Regulation Section(s) 4.05.2(1)

Failure to pass drainage from the disturbed area through the sediment pond.

NOV was abated prior to 09/08/86 deadline.
$200 penalty assessed.
Terminated 8/25/86.

COMPLIANCE INFORMATION - COLORADO

Kaiser Steel Corporation
Colorado Coal Mine No. 1
Huerfano County, Colorado

Regulatory Authority
State of Colorado
Department of Natural Resources
Mined Land Reclamation Division
Denver, Colorado

NOTICE OF VIOLATION C-83-20 (10/7/83)

Act Section(s) 34-33-123(2)
Regulation Section(s) 5.02.2(2)(a), 3.02.4(2)(6)

Failure to meet the conditions of permit approval. Specifically, failure to post sufficient bond by 8/25/83 as required by Proposed Decision and Findings of Compliance issued on 6/16/83.

Perma did not meet the deadlines for bonding and was assessed a $27,000 penalty.

Violation terminated following a hearing with the Mined Land Reclamation Board in 3/84.

NOTICE OF VIOLATION C-84-011 (2/13/84)

Act Section(s) 120(2)(j)(II)
Regulation Section(s) 4.05.5(1)

Failure to maintain sediment control measures by failure to clean culvert of sediment in the collector ditch.

Culvert was cleaned of sediment.

Assessment conference held 7/6/84.
$800 penalty assessed.
Terminated 7/13/84.

NOTICE OF VIOLATION C-84-012 (2/13/84)

Act Section(s) 120(2)(e)
Regulation Section(s) 4.07.3(2)(a)(i)

Failure to stabilize and protect stockpile soil materials with an effective vegetative cover.

Operator indicated that the areas had been drilled and seeded in the falls of 1982 and 1983. A fence was installed to protect the revegetation.

Assessment conference held 7/6/84.
$1,350 penalty assessed.
Terminated 7/6/84.

NOTICE OF VIOLATION C-84-034 (3/8/84)

Act Section(s) 34-33-120(2)(j)
Regulation Section(s) Rule 4.05.3(3)

Failure to stabilize and maintain diversion ditches.

The diversion ditches were repaired and or reconstructed.

Assessment conference held 7/6/84.
$464 penalty assessed.
Terminated 6/12/84.

NOTICE OF VIOLATION C-84-035 (3/8/84)

Act Section(s) 34-33-123(2)
Regulation Section(s) 5.03.2(2)(a)

Failure to follow the approved mine plan. Specifically, constructing a diversion ditch which was not approved by the Division.

A technical revision was submitted in order to bring the ditch into compliance.

Assessment conference held 7/6/84
$400 penalty assessed.
Terminated 6/12/85.

NOTICE OF VIOLATION C-84-036 (3/8/84)

Act Section(s) 34-33-120(2)(j)(II)(A)
Regulation Section(s) 4.05.6(8)(g)

Failure to stabilize the pond enbankment with respect to erosion by establishing a vegetative cover.

The problem was mitigated by previous seeding and new fencing. With further information the Division agreed that the material in question was not a pond enbankment, but rather an overburden stockpile, and as a result it was not subject to the same requirements for stabilization and vegetative cover.

Vacated 7/9/84.

NOTICE OF VIOLATION C-84-037 (3/8/84)

Act Section(s) 34-33-120(2)(j)(II)(B)
Regulation Section(s) 4.05.6(t)

Failure to have sedimentation pond certified by a qualified registered professional engineer following construction and submit such certification to the Division.

Certification was submitted to the Division.

Vacated 7/12/84.

NOTICE OF VIOLATION C-84-038 (3/8/84)

Act Section(s) 34-33-122(2)
Regulation Section(s) 4.05.13(1)

Failure to monitor ground water.

A monitoring plan was submitted to the Division by Mr. Rob Traylor by Piteau and Associates. Monitoring has been ongoing since.

Assessment conference held 7/6/84.
$500 penalty assessed.
Terminated 6/12/84.

NOTICE OF VIOLATION C-84-069 (4/23/84)

Act Section(s) 34-33-120(2)(j)
Regulation Section(s) 4.04(3), 4.05(1)

Failure to maintain drainage control structures.
Specifically, failure to clean the diversion ditch of sediment by the specified compliance deadline.

Ditch was cleaned and reconstructed. Surveys were completed in order to assure proper grades.

Assessment conference held 7/6/84.
$900 penalty assessed. See Cessation Order C-84-129.

CESSATION ORDER C-84-125 (6/25/84)

Act Section(s) 34-33-123(3)
Regulation Section(s) 5.03.2(3)

Failure to properly abate NOV C-84-012.

A letter of explanation was issued to the Division on 7/10/84.

Terminated 7/5/84.

CESSATION ORDER C-84-126 (6/25/84)

Act Section(s) 34-33-123(3)
Regulation Section(s) 5.03.2(3)

Failure to abate NOV C-84-034.

A letter of explanation was issued to the Division on 7/10/84.

Terminated 7/5/84.

CESSATION ORDER C-84-127 (6/25/84)

Act Section(s) 34-33-123(3)
Regulation Section(s) 5.03.2(3)

Failure to properly abate NOV C-84-035.

A letter of explanation was sent to the Division on 7/10/84.

Terminated 7/5/84.

CESSATION ORDER C-84-128 (6/25/84)

Act Section(s) 34-33-123(3)
Regulation Section(s) 5.03.2(3)

Failure to properly abate NOV C-84-036.

A letter of explanation was sent to the Division.

Vacated along with NOV C-84-036 on 7/9/84.

CESSATION ORDER C-84-129 (6/25/85)

Act Section(s) 34-33-123(3)
Regulation Section(s) 5.03.2(3)

Failure to properly abate NOV C-84-069.

Ditch problem was mitigated.

Assessment conference held 9/10/84.
$850 penalty assessed.
Terminated 7/5/84.

NOTICE OF VIOLATION C-84-155 (8/15/84)

Act Section(s) 34-33-111(1)(e), 120(2)(e), 120(2)(j)(II)(A)
Regulation Section(s) 2.05.3(6), 4.06, 4.05.2(1)

Assessment conference held on 9/10/84.
$850 penalty assessed.
Terminated 12/18/84.

NOTICE OF VIOLATION C-84-161 (9/26/84)

Act Section(s) 34-33-120(2)(j)
Regulation Section(s) Rule 4.05.3(3)

Failure to maintain diversion culvert.

Culvert was removed and cleaned.

Assessment conference held 12/11/84.
No penalty assessed, since the county road ditch contributed most of the sediment which clogged the culvert.

A new culvert was to be installed by the county.
Terminated 11/26/84.

NOTICE OF VIOLATION C-85-017 (3/6/85)

Act Section(s) 34-33-122(2)
Regulation Section(s) Rule 4.05.12(2)(c)

Failure to maintain surface water monitoring station.

Vandalized station was replaced immediately.
Informal conference held 5/20/85.
No penalty assessed.
Terminated 3/15/85.

NOTICE OF VIOLATION C-86-028 (4/8/86)

Act Section(s) 120 (2)(j)
Regulation Section(s) 4.07.1(b)(c)

Failure to plug, seal or otherwise maintain exploration holes and wells within the permit area No. (C-81-024).

Holes were either reclaimed or sealed.

Assessment conference held6/3/86.
Penalty was reduced from $500 to $400.
Termination pending.

NOTICE OF VIOLATION C-86-029 (4/8/86)

Act Section(s) 120 (2)(j)
Regulation Section(s) 4.07.1 (b)(c)

Failure to plug, seal or otherwise maintain holes and wells within exploration permit No. (No1-CX127-01)

Holes were backfilled and seeded.

Assessment conference held 6/3/86.
Penalty was reduced from $500 to $400.
Termination pending.

COMPLIANCE INFORMATION - UTAH

Kaiser Coal Corporation
Sunnyside Mines
Carbon County, Utah

Regulatory Authority:
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
Salt Lake City, Utah

NOTICE OF VIOLATION 84-6-4-1 (4/12/84)

Part 1 of 1 UMC 817.42

Failure to pass disturbed area runoff through sediment or water treatment before entering undisturbed drainage.

Repair berm.

$220 penalty assessed.
Terminated 4/12/84.

NOTICE OF VIOLATION 84-6-9-1 (8/10/84)

Part 1 of 1 UMC 771.19

Failure to mine in accordance with approved plan.
Cessation of mine water discharge into No. 2 Canyon.

No penalty assessed.
Terminated 8/10/84.

NOTICE OF VIOLATION 84-4-17-3 (11/19/84)

Part 1 of 3 UMC 817.23(b)

Failure to protect stockpiled topsoil material.

Complete the ditch and berm and/or use straw bales.

$220 penalty assessed.
Terminated 11/19/84.

Part 2 of 3 UMC 817.42, UMC 817.43, UMC 817.45

Failure to maintain sediment control measures to ensure that disturbed area drainage passes through a sediment pond before leaving the permit area.

Maintain ditch so it is properly sized and has adequate slope to prevent ponding in the diversion.

$240 penalty assessed.
Terminated 11/19/84.

Part 3 of 3 UMC 817.42, UMC 817.45

Failure to maintain sediment controls to ensure all disturbed area drainage passes through a sediment pond before leaving the permit area.

Maintain the sediment controls to ensure that the drainage from the substation area goes to the sediment pond.

$70 penalty assessed.
Terminated 11/29/84.

NOTICE OF VIOLATION 85-4-1-4 (1/7/85)

Part 1 of 4 UMC 771.19, UCA 40-10-22(i)(c)

Failure to mine in accordance with an approved mine plan (001 mine water pond).

Submit plans to the Division for approval of the as-built mine water pond.

No penalty assessed.
Terminated 1/24/85.

Part 2 of 4 UMC 771.19, UMC 817.47, UCA 40-10-22(i)(c)

Failure to mine in accordance with an approved mine plan (hoist house and manshaft sediment ponds).

Submit plans to the division for approval of the as-built sediment ponds. Said plans must address all modification to the approved design including construction of adequate discharge structures.

No penalty assessed.
Terminated 1/23/85.

Part 3 of 4 UMC 817.46, UMC 817.49, UMC 817.93

Failure to conduct weekly sediment pond impoundment inspections.

Conduct inspections and keep records as required.

No penalty assessed.
Terminated 1/12/85.

Part 4 of 4 UMC 817.82

Failure to conduct inspections of coal processing waste banks.

Conduct inspections in accordance with UMC 817.82.

No penalty assessed.
Terminated 2/12/85.

NOTICE OF VIOLATION 85-4-4-2 (2/22/85)

Part 1 of 2 UMC 817.42, UMC 817.45

Failure to pass all surface drainage from the disturbed area (parking lot and office area) through a sediment pond or treatment facility before leaving the permit area.

Install loose straw filter dikes along the tracks to treat the runoff.

Submit drainage control plans to the Division for this area.

No penalty assessed.
Terminated 3/8/85.

Part 2 of 2 UMC 817.42, UMC 817.45

Failure to pass all surface drainage from the disturbed area (No. 2 Canyon bridge) through a sediment pond or treatment facility before leaving the permit area.

Maintain the area so that disturbed area runoff bypasses the bridge and goes to the lower #2 Canyon sediment pond as designed.

No penalty assessed.
Terminated 3/8/85.

NOTICE OF VIOLATION 85-4-10-1 (3/22/85)

Part 1 of 1 UMC 771.19

Failure to mine in accordance with an approved interim permit.

Stop using the dirt road from the coarse refuse haul road to state highway 123. Install sediment controls to ensure that there are no additional contributions of suspended solids to Grassy Trail Creek from the newly disturbed area associated with the stream crossing southwest of the coal stockpile. Submit plans for the Class I road. Submit plans for the permitting of, or reclamation of the dirt road from the coarse refuse haul road to state highway 123 in accordance with UMC 817.150 - .156.

No penalty assessed.
Terminated 4/15/85.

CESSATION ORDER 85-4-2-1 (3/22/85)

Part 1 of 1 UCA 40-10-22(1)(c)

Failure to abate NOV 85-4-4-2 within the time set for abatement.

Comply with the remedial actions required in the violation, immediately.

Terminated 3/22/85.

NOTICE OF VIOLATION 85-4-11-1 (4/4/85)

Part 1 of 1 UMC 817.42(c)

Failure to maintain water treatment facilities as approved.

Maintain facilities in accordance with approved plan.

No penalty assessed.
Terminated 4/4/85.

NOTICE OF VIOLATION 85-4-17-3 (5/13/85)

Part 1 of 3 UCA 40-10-22(1)(c), UMC 771.19, UMC 43(a)

Failure to construct and maintain diversion to (manshaft and No. 2 Canyon) divert runoff from a sediment pond, to ensure that they will pass safely the peak runoff from a 10 year, 24 hour precipitation event. Failure to mine in accordance with an approved interim mine plan.

Construct and maintain the diversions in accordance with the approved plan.

Penalty pending.
Terminated 5/13/85.

Part 2 of 3 UCA 40-10-22(1)(c), UMC 771.19, UMC 817.46(e)(1)(m) UMC 817.47

Failure to conduct mining activities in accordance with an approved interim permit (coarse refuse toe pond).

Failure to provide an adequate discharge structure.

Reconstruct and maintain the pond to meet approved design specifications. Submit complete and adequate plans to the Division for adequate erosion protection of the emergency spillway outlet.

Penalty pending.
Terminated 9/3/85.

Part 3 of 3 UMC 817.49(b), UMC 817.46(e)

Failure to construct and maintain a pond (001 mine water pond) to prevent short circuiting to the extent possible.

Cease pumping water into the pond. Submit complete and adequate plans to the Division which show how piping along the spillway will be stopped.

Penalty pending.
Terminated 5/13/85.

CESSATION ORDER 85-4-6-1 (6/20/85)

Part 1 of 1 UCA 40-10-22(i)(c)

Failure to abate a violation within the time set for abatement. Water was discharged into the pond without approval.

Comply with the remedial actions required in the violation, immediately.

Penalty pending.
Terminated 6/20/85.

NOTICE OF VIOLATION 85-4-19-1 (6/20/85)

Part 1 of 1 UMC 817.45

Failure to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area.

Cease all discharge into and from the clear water pond until otherwise notified in writing by the Division.

Submit complete and adequate plans to the Division detailing what measures will be taken to repair the damage to the slurry cell system to ensure that discharge from the clear water pond will meet all applicable state and federal water quality standards.

Implement said plan immediately upon Division approval.

Penalty pending.
Terminated 11/8/85.

NOTICE OF VIOLATION 85-4-20-2 (6/21/85)

Part 1 of 2 UCA 40-10-22(i)(c), UMC 771.19, UMC 817.42(a)(i)

Failure to mine in accordance with an approved interim mine plan (parking lot and office area runoff).

Remedial actions completed.

Penalty pending.
Terminated 7/25/85.

Part 2 of 2 UMC 817.42(c)

Failure to maintain water treatment facilities (course refuse seep).

Remedial actions completed.

Penalty pending.
Terminated 6/28/85.

NOTICE OF VIOLATION 85-4-21-3 (7/25/85)

Part 1 of 3 — UCA 40-10-18(2)(i)(ii), UMC 817.41(c), UMC 817.42(a)(1), UMC 817.45

Failure to meet state and federal water quality effluent limitations.

Failure to pass all disturbed area drainage through a sediment pond before leaving the permit area.

Failure to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area.
Plug both the inlet and outlet of the pipe permanently or remove the culvert.

Abated 7/25/85.
Penalty pending.
Terminated 8/29/85.

Part 2 of 3 — UCA 40-10-18(2)(i)(ii), UMC 817.42(a)(1), UMC 817.43(c), UMC 817.45

Failure to pass all surface drainage from the disturbed area through a sediment pond before leaving the disturbed area.

Failure to maintain a diversion in a manner which prevents additional contributions of suspended solids to stream flow or runoff outside the permit area.

Failure to minimize erosion to the extent possible.

A. Maintain the downspout and diversion ditch from the downspout to the sediment pond.

B. Submit complete and adequate plans to the Division for the stabilization of the old coarse refuse pond area collection ditch, to repair the diversion and protect it from further erosion. Implement these plans immediately upon Division approval.

NOV abatement deadline extended to 9/23/85. Final approval on plans received 10/29/85.

Penalty pending.

CESSATION ORDER 85-4-8-3 (9/25/85)

Part 1 of 3 — UCA 40-10-22(1)(c), UMC 843.11(b)(1), UMC 843.12(d)

Failure to abate a Notice of Violation within the time set for abatements.

Comply with part A of the remedial actions required in the violation immediately.

Cleaned out and maintained downspout as required.

Terminated 9/30/85.

Part 3 of 3 UCA 40-10-22(1)(c), UMC 771.19

Failure to conduct mining activities in accordance with an approved interim permit.

Submit complete and adequate plans to the Division to modify the approved design and which ensure compliance with UMC 817.46 and UMC 817.49. Plans must be implemented immediately upon approval.

Final approval on plans received 10/29/85.

Penalty pending.

NOTICE OF VIOLATION 85-4-24-3 (9/6/85)

Part 1 of 3 UCA 40-10-18(2)(i)(ii), UMC 771.19, UMC 817.45

Failure to mine in accordance with an approved interim permit.

Failure to install and maintain sediment controls to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area.

Implement the drainage control plans approved for the site.

NOV abatement deadline 9/23/85. Water canyon drainage controls were implemented.

Penalty pending.
Terminated 9/27/85.

CESSATION ORDER 85-4-8-3 (9/25/85)

Part 2 of 3 UCA 40-10-22(1)(c), UMC 843.11(b)(1)
UMC 843.12(d)

Failure to abate Notice of Violation within the time set for abatement.

Comply with the remedial actions required in the violation immediately.

Drainage controls were implemented.

Terminated 9/27/85.

Part 2 of 3 UCA 40-10-18(2)(i)(ii), UMC 817.45, UMC 817.150(a)(b)
UMC 817.153(a)(2)

Failure to maintain sediment controls to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area.

Failure to maintain Class I roads in order to minimize contributions of suspended solids to stream flow or runoff outside the permit area.

Maintain the silt fences at the stream crossing: Clean out sediment collected, dispose of the sediment properly, and reinstall the silt fence as necessary to ensure the runoff does not short circuit it.

Maintain a berm (minimum height 2 feet) along the outside edge of the road where it parallels Grassy Trail Creek and remove the material deposited along the inside of the road which inhabits runoff from the road from entering the slurry ditch.

Abatement deadline 9/17/85.
Class I drainage controls were maintained.

Penalty pending.
Terminated 9/27/85.

CESSATION ORDER 85-4-8-3 (9/25/85)

Part 3 of 3 UCA 40-10-22(1)(c), UMC 893.11(b)(1), UMC 843.12(d)

Failure to abate a Notice of Violation within the time set for abatement.

Comply with the remedial actions required in the violation, immediately.

Class I road drainage controls were maintained.

Terminated 9/27/85.

Part 3 of 3 UCA 40-10-22(1)(c), UMC 771.19, UMC 817.45

Failure to mine in accordance with an approved interim permit.

Failure to maintain sediment control measures to minimize erosion to the extent possible.

Maintain diversion D-3 to design specifications.

Remove all large boulders from the No. 2 Canyon undisturbed drainage which will significantly obstruct flow.

Abatement deadline 9/23/85.
No. 2 Canyon undisturbed drainages maintained.

Penalty pending.
Terminated 9/25/85.

COMPLIANCE INFORMATION - NEW MEXICO

Kaiser Coal Corporation
York Canyon Mines
Colfax County, New Mexico

Regulatory Authority:
State of New Mexico
Energy and Minerals Department
Mining & Minerals Division
Santa Fe, New Mexico

NOTICE OF VIOLATION 011 (08/31/83)

Part 1 of 1 Rule 80-1, Chapter K Section 22

Underground leakage of diesel fuel from buried diesel line polluting undetermined portion of York Canyon alluvial aquifer.

Diesel leak was abated within 90 days.

No penalty assessed.
Terminated 11/28/83.

NOTICE OF VIOLATION 144 (4/18/84)

Part 1 of 1 Rule 79-1, Section 21, Topsoil Handling

Failure of the operator to stockpile topsoil in a stable area.

Constructed ditch/berm adjacent to stockpile.

Informal conference held 6/15/84.
No penalty assessed.
.5 History Points.
Terminated 5/21/84.

NOTICE OF VIOLATION 145 (4/18/84)

Part 1 of 1 Rule 79-1, Section 21 Topsoil Handling

Failure to segregate topsoil material from mine out overburden material.

Constructed ditch/berm around topsoil stockpile.

Informal conference held 6/15/84.
No penalty assessed.
.5 History Points.
Terminated 5/21/84.

NOTICE OF VIOLATION 146 (4/18/84)

Part 1 of 1 Rule 79-1, Section 19, Backfilling and Grading

Failure to stabilize rills and gullies over nine inches deep.

Filled rills and gullies with topsoil or rock material.

Informal conference held 6/15/84.
No penalty assessed.
.5 History Points.
Terminated 5/21/84.

NOTICE OF VIOLATION 147 (4/18/84)

Part 1 of 1 — Rule 79-1, Sections 23(E)(8) and 15(b) and NMSA Section 69-25A-19(B)(10)(C)

Failure to be certified by a qualified professional engineer registered in New Mexico for all structures which act as the final impoundment of runoff from the permit area.

Informal conference held 6/15/84.
Vacated 7/2/84.

NOTICE OF VIOLATION 150 (5/28/84)

Part 1 of 1 — Rule 79-1, Section 19, Backfilling and Grading (715.14)(i)

Failure to stabilize rills and gullies over nine inches deep.

Informal conference held 7/20/84.
No penalty assessed.
.5 History Points
Terminated 7/3/84.

NOTICE OF VIOLATION 155 (6/12/84)

Part 1 of 1 — Rule 79-1, Section 21, Topsoil Handling

Failure of operator to remove contamination from the topsoil stockpile and to prevent water erosion of topsoil stockpile.

Constructed berm around topsoil stockpile.

Informal hearing held 7/20/84.
$1,000 penalty assessed.
1 History Point
Terminated 7/3/84.

NOTICE OF VIOLATION 156 (7/6/84)

Part 1 of 2 — Rule 79-1, Section 23(e)(vi)(5)

Failure of the operator to have a properly installed (constructed) spillway system for a sediment pond.

Informal conference held 8/2/84.
Vacated 9/7/84.

Part 2 of 2 Rule 79-1, Section 23(1)(2)(iii)

Failure of the operator to construct culverts to avoid erosion at inlets and outlets.

Informal conference held 8/2/84.
Vacated 9/7/84.

NOTICE OF VIOLATION 157 (7/6/84)

Part 1 of 1 Rule 79-1, Section 23(vi)(f)

Failure of the operator to control discharges from sedimentation ponds and diversions to reduce erosion and prevent deepening or enlargement of stream channels and to minimize disturbances to the hydrologic balance.

Rip Rap material placed in discharges of diversion and spillway.

Informal conference held 8/2/84.
No penalty assessed.
.5 History Points
Terminated 8/24/84.

NOTICE OF VIOLATION 158 (7/6/84)

Part 1 of 1 Rule 79-1, Section 19(i)

Failure of the operator to regrade or stabilize rills and gullies deeper than nine inches that have formed in areas that have been regraded and the topsoil replaced but vegetation has not yet been established.

Rip rap material placed in rills.

Informal conference held 8/2/84.
No penalty assessed.
.5 History Points
Terminated 8/24/84.

NOTICE OF VIOLATION 159 (7/6/84)

Part 1 of 1 Rule 79-1, Section 23(e)(vi)(5)

Failure of the operator to have a properly installed (constructed) spillway system for sedimentation pond.

Informal conference held 8/2/84.
Vacated 9/7/84.

NOTICE OF VIOLATION 160 (7/6/84)

Part 1 of 1 — Rule 79-1, Section 69-25A-19(B)(10)(C) NM-CSMS Section 25(E)(8)

Failure of the operator to have all sedimentation structures (ponds) which present suspended solids to stream flow or runoff outside of the permit area, to be certified after construction by a qualified professional engineer registered in New Mexico.

Informal conference held 8/2/84.
No penalty assessed.
.5 History Points.
Terminated 10/9/84.

NOTICE OF VIOLATION 161 (7/10/84)

Part 1 of 1 — Rule 79-1, NMSA Section 69-25A-19(B)(10)(C) NM CSMS Section 23(E)(8)

Failure of the operator to have all sedimentation structures (ponds) which present suspended solids to stream flow or runoff outside of the permit area, to be certified after construction by a qualified professional engineer registered in New Mexico.

Informal conference held 8/2/84.
No penalty assessed.
.5 History Points.
Terminated 10/9/84.

NOTICE OF VIOLATION 165 (8/14/84)

Part 1 of 1 — Rule 79-1 NMSA Section 21(B)(iii) NM CSMS Section 19(i)

Failure of operator to protect topsoil from wind and water erosion.

Failure of operator to regrade or stabilize rills or gullies deeper than nine inches.

Informal conference held 10/15/84.
No penalty assessed.
.5 History Points.
Terminated 9/14/84.

NOTICE OF VIOLATION 191 (10/18/84)

Part 1 of 2 — Findings of fact 6(d) Permit No. 1-A-2 Surface
Conclusions of law 3 Permit No. 1-A-2 (Surface)

Failure of the operator to fulfill the conditions of their permit. (Findings of fact, conclusions of law.) The operator graded, topdressed

and seeded an area (slope) in excess of 15 degrees and in excess of that which occurred before mining. The slope was measured in two areas with a clinometer. Measured slopes were 37% (20° 18') and 42% (22° 47').

Informal hearing held 1/14/85.
No penalty assessed.
.5 History Points.
Terminated 1/16/85.

Part 2 of 2 Rule 79-1, Section 19(i)

Failure of the operator to regrade or stabilize rills and gullies deeper than nine inches that have formed in areas that have been regraded and topsoil replaced but vegetation has not yet been established.

Informal hearing held 1/14/85.
Vacated 1/14/85; NOV was improperly written.

Order to Show Cause (12/7/84)

NMSA Section 69-15A-25(c) (1978 Comp.)

Stipulated agreement signed between MMD and Kaiser

Public hearing held 1/18/85.
No revocation of permit.

NOTICE OF VIOLATION 192 (12/28/84)

Part 1 of 1 Rule 79-1, Section 69-25A-19(B)(14) CSMC Section 23(e)(2)(i)

Failure of the operator to ensure that all debris are treated or buried and compacted or otherwise disposed of in a manner designed to prevent contamination of ground or surface waters.

Failure of the operator to provide 24-hours theoretical detention time for the inflow or runoff entering a pond from a 10 year 24 hour precipitation event. The operator discharged water from a pond containing some contaminants into the York Canyon stream in the absence of a 10 year 24 hour precipitation event (surface oil).

Informal hearing held 2/18/85.
No penalty assessed.
Vacated 3/8/85.

NOTICE OF VIOLATION 193 (12/28/84)

Part 1 of 1 — Rule 79-1, Section 69-25A-19(B)(17) CSMC Section 23(L)(2)(i)

Failure of the operator to maintain roads in a manner that decreases erosion. Runoff from an active access road had been discharged onto an undisturbed area in a manner that created rills and gullies deeper than nine inches.

Informal hearing held 2/18/85.
No penalty assessed.
.5 History Points.
Terminated 1/8/85.

NOTICE OF VIOLATION 200 (2/21/85)

Part 1 of 3 — Rule 80-1, Section 19-15(j)

Failure of the operator to restrict their surface facilities and areas to be disturbed to those areas described under Items # 1, 3, and 4 of the exploration plan section of permit application.

Failure of the operator to provide sediment control measures.

Failure of operator to notify MMD by letter of any deviations from the exploration plan.

Failure of the operator to protect off-site areas from damage by locating any part of the operations outside the permit area.

Informal hearing held 4/4/85.
$1,200 assessed.
Terminated 4/29/85.

Part 2 of 3 — NMSA Section 69-25A-19(B)(17)

Failure of the operator to maintain a primary road so as to control or prevent erosion and siltation. A discharge(s) from the primary access road caused erosion in excess of nine inches. The road berm had apparently been intentionally breached to allow discharge of water which had collected on the road surface.

Informal hearing held 4/4/85.
$1,100 penalty assessed.
Terminated 4/29/85.

Part 3 of 3 — Permit E-18 Coal Exploration Stipulation #7

Failure of the operator to notify the Mining and Minerals Division by letter of any deviations from the exploration plan section of the exploration mine permit application for the upper left fork seam in the

Upper York Canyon Exploration Permit #E-16. The operator drilled a well within the permit area that was not included in the exploration plan.

Informal hearing held 4/4/85.
No penalty assessed.
Terminated 4/29/85.

NOTICE OF VIOLATION 207 (9/25/85)

Part 1 of 1 NM 79-1, 23(a)

Description: Failure to pass surface drainage from the disturbed area through a sedimentation pond or a series of sedimentation ponds before leaving the permit area.

Abatement Action Taken: Berm constructed along creek channel.

Proceedings: Informal hearing held 11/25/85; NOV upheld; $380 penalty assessed.

Status: Pending construction of pond. State has approved designs.

NOTICE OF VIOLATION 208 (11/5/85)

Part 1 of 1 NM 69-25A-25(B)

Description: Failure to comply with the mine plan as required in the permit.

Abatement Action Taken: Ceased pumping from tailings dam #3.

Proceedings: Informal hearing held 12/5/85, results pending.

Status: Violation pending.

NOTICE OF VIOLATION 225 (6/19/85)

Part 1 of 1 NM 79-1, 20-23(b)

Description: Failure of the operator to selectively place topdressing on a stable area in a manner where it will not be disturbed or subject to wind and water erosion, unnecessary compaction of contaminants. The operators excavated topdressing but did not place material in a stockpile or other stable protected area.

Abatement Action Taken: Topsoil was redistributed, seeded and mulched.

Proceedings: No penalty assessed.

Status: Terminated 7/6/85.

NOTICE OF VIOLATION 263 (11/5/85)

Part 1 of 1 — NMCMC Rule 79-1, Section 25(e)(1)(v) NMCCNC Rule 79-1, Section 17(c)

Description: Failure of operator to conspicuously display signs reading "Blasting Area" at the edge of blasting areas along access and haul roads within the mine property.

Abatement Action Taken: Blasting sign displayed in pattern area.

Proceedings: Informal hearing held 12/5/85.

Status: Vacated 12/27/85.

NOTICE OF VIOLATION 276 (06/25/86)

Part 1 of 3 — NM CSMC Rule 80-1, Section 20-83(b)

Failure to divert surface drainage from the area above a coal processing waste bank and from the crest and face of the waste disposal area in accordance with Section 20-72(d).

Informal hearing held 07/11/86.
No penalty assessed.
Terminated 07/25/86.

Part 2 of 3 — NM CSMC Rule 80-1, Section 20-85(c)(1)

Failure to spread coal processing waste in layers no more than 24 inches in thickness.

Informal hearing held 07/11/86.
No penalty assessed.
Terminated 07/25/86.

Part 3 of 3 — NM CSMC Rule 80-1, Section 20-92(b)

Failure of the operator to divert surface drainage that may cause erosion to the embankment area or embankment features away from the embankment by diversion ditches that comply with the requirements of Section 20-43.

Informal hearing held 07/11/86.
No penalty assessed.
Terminated 07/25/86.

NOTICE OF VIOLATION 277 (06/25/86)

Part 1 of 2 NM CSMC Rule 80-1, Section 20-42(a)(6)

Failure to construct required sedimentation ponds in appropriate locations before beginning any surface coal mining operations in the drainage to be affected.

Informal hearing held 07/11/86.
No penalty assessed.
Terminated 07/25/86.

Part 2 of 2 NM CSMC Rule 80-1

Failure to comply with the terms and conditions of the approved permit: Failure to construct the diversion in two phases that would not disturb the stream channel until actual tie-in occurs.

Informal hearing held 07/11/86.
$2,000 penalty assessed.
Terminated 07/25/86.

NOTICE OF VIOLATION 278 (07/11/86)

NM CSMC Rule 80-1, Section 20-82(a)(1-4)

Failure to conduct site inspections of coal processing waste bank.

Informal hearing held 08/29/86.
No penalty assessed, 1/2 history point.
Terminated 09/05/86.

CESSATION ORDER NO. C-80-86-01 (07/11/86)

NM CSMC Rule 80-1, Section 20-82(a)(1-4)

Failure to conduct site inspections of a coal processing waste bank.

Informal hearing held 08/29/86.
Vacated 09/05/86.

NOTICE OF VIOLATION 228 (07/21/86)

NMSA Section 19-b-4

Failure to stabilize and protect all surface areas affected by the surface coal mining and reclamation operation to effectively control erosion, resulting in a gully in excess of two feet deep on area reclaimed prior to S.M.C.R.A.

No penalty assessed.
Abatement to be completed by revegetation in 1987.

NOTICE OF VIOLATION 205 (08/19/86)

NM CSMC Rule 80-1, Section 20-46, Section 20-47

Failure of the operator to provide detention time for the inflow entering a sediment pond from a 10-year, 24-hour precipitation event. Failure to control discharge from a sediment pond so as to control erosion.

No penalty assessed.
Terminated 09/22/86.

ATTACHMENT "A"

COMPLIANCE INFORMATION - UTAH

FROM TRANSCRIBED DOCUMENT

Sunnyside Mines
Carbon County, Utah

Regulatory Authority:
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
Salt Lake City, Utah

NOTICE OF VIOLATION 82-6-1-1 (12/8/82)

Part 1 of 1 UMC 817.45(i) UCA 40-10-18 2(i)(ii) UMC 817.46(c)

Failure to maintain sediment control measures to prevent additional distribution of sediment to stream flow outside the permit area.

Failure to maintain sediment ponds to prevent short circuit to the extent possible.

Maintenance of present structure. Submit plans addressing areas inadequately designed and constructed to ensure proper conveyance and treatment of disturbed area runoff. Implement plans upon approval by the Division.

Conference held 1/11/83.
$480 penalty assessed.

NOTICE OF VIOLATION 83-6-2-3 (1/11/83)

Part 1 of 3 UCA 1953 40-10-9 UCA 1953 40-10-15(s)(i)(i)
UMC 771.19 UMC 817.45 UMC 817.46

Failure to operate in accordance with an approved plan. Failure to design, construct and maintain sediment controls to prevent additional contributions of sediment to runoff outside the permit area.

Submit plans for sediment pond to meet requirements of regulation of Surface Effects of Underground Coal Mining Activities and implement those plans upon approval by the Division.

Conference held 3/10/83.
$880 penalty assessed.
Terminated 4/21/83.

Part 2 of 3 UMC 817.21 UMC 817.23

Failure to stockpile topsoil on a stable surface, protected from wind and water erosion, unnecessary compaction and contaminants.

Submit plans for replacing the volume created by the violation. Implement plans upon approval by the Division.

Conference held 3/10/83.
$340 penalty assessed.
Terminated 4/21/83.

Part 3 of 3 UMC 817.41(c)(d) UMC 817.42(c) UMC 817.42(a)(1) UMC 817.42(a)(7)

Failure to conduct operations to minimize water pollution. Failure to meet State and Federal quality effluent limitations. Failure to pass drainage from the disturbed area through a treatment facility before leaving the permit area.

Submit plans to ensure operations are conducted to minimize water pollution and meet effluent limitations. Submit plans for treatment facilities needed to meet these ends. Implement plans upon approval by the Division.

Conference held 3/10/83.
$920 penalty assessed.
Terminated 4/21/83.

NOTICE OF VIOLATION 83-6-10-1 (8/17/83)

Part 1 of 1 UMC 771.19 UMC 817.41 UMC 817.45

Failure to mine in accordance with an approved plan.

Failure to plan and conduct activities to minimize impact on hydrologic balance.

Failure to maintain sediment controls.

Regrade and seed area.

$600 penalty assessed.
Vacated by board order.

NOTICE OF VIOLATION 84-6-4-1 (4/12/84)

Part 1 of 1 UMC 817.42

Failure to pass disturbed area runoff through sediment or water treatment before entering undisturbed drainage.

Repair berm.

$220 penalty assessed.
Terminated 4/12/84.

NOTICE OF VIOLATION 84-6-9-1 (8/10/84)

Part 1 of 1 UMC 771.19

Failure to mine in accordance with approved plan.

Cessation of mine water discharge into No. 2 Canyon.

No penalty assessed.
Terminated 8/10/84.

NOTICE OF VIOLATION 84-4-17-3 (11/19/84)

Part 1 of 3 UMC 817.23(b)

Failure to protect stockpiled topsoil material.

Complete the ditch and berm and/or use straw bales.

Penalty pending.
Terminated 11/19/84.

Part 2 of 3 UMC 817.42 UMC 817.43 UMC 817.45

Failure to maintain sediment control measures to ensure that disturbed area drainage passes through a sediment pond before leaving the permit area.

Maintain ditch so it is properly sized and has adequate slope to prevent ponding in the diversion.

Penalty pending.
Terminated 11/19/84.

Part 3 of 3 UMC 817.42 UMC 817.45

Failure to maintain sediment controls to ensure all disturbed area drainage passes through a sediment pond before leaving the permit area.

Maintain the sediment controls to ensure that the drainage from the substation area goes to the sediment pond.

Penalty pending.
Terminated 11/29/84.

NOTICE OF VIOLATION 85-4-1-4 (1/7/85)

Part 1 of 4 UMC 771.19 UCA 40-10-22(i)(c)

Failure to mine in accordance with an approved mine plan (001 mine water pond).

Submit plans to the Division for approval of the as-built mine water pond.

Penalty pending.
Terminated 1/24/85.

Part 2 of 4 UMC 771.19 UMC 817.47 UCA 40-10-22(i)(c)

Failure to mine in accordance with an approved mine plan (hoist house and manshaft sediment ponds).

Submit plans to the division for approval of the as-built sediment ponds. Said plans must address all modification to the approved design including construction of adequate discharge structures.

Penalty pending.
Terminated 1/23/85.

Part 3 of 4 UMC 817.46 UMC 817.49 UMC 817.93

Failure to conduct weekly sediment pond impoundment inspections.

Conduct inspections and keep records as required.

Penalty pending.
Terminated 1/12/85.

Part 4 of 4 UMC 817.82

Failure to conduct inspections of coal processing waste banks.

Conduct inspections in accordance with UMC 817.82.

Penalty pending.
Terminated 2/12/85.

NOTICE OF VIOLATION 85-4-4-2 (2/22/85)

Part 1 of 2 UMC 817.42 UMC 817.45

Failure to pass all surface drainage from the disturbed area (parking lot and office area) through a sediment pond or treatment facility before leaving the permit area.

Install loose straw filter dikes along the tracks to treat the runoff.

Submit drainage control plans to the Division for this area.

Penalty pending.
Terminated 3/8/85.

Part 2 of 2 UMC 817.42 UMC 817.45

Failure to pass all surface drainage from the disturbed area (No. 2 Canyon bridge) through a sediment pond or treatment facility before leaving the permit area.

Maintain the area so that disturbed area runoff bypasses the bridge and goes to the lower #2 Canyon sediment pond as designed.

Penalty pending.
Terminated 3/8/85.

NOTICE OF VIOLATION 85-4-10-1 (3/22/85)

Part 1 of 1 UMC 771.19

Failure to mine in accordance with an approved interim permit.

Stop using the dirt road from the coarse refuse haul road to state highway 123. Install sediment controls to ensure that there are no additional contributions of suspended solids to Grassytrail Creek from the newly disturbed area associated with the stream crossing southwest of the coal stockpile. Submit plans for the Class I road. Submit plans for the permitting of, or reclamation of the dirt road from the coarse refuse haul road to state highway 123 in accordance with UMC 817.150 - .156.

Penalty pending.
Terminated 4/15/85.

CESSATION ORDER 85-4-2-1 (3/22/85)

Part 1 of 1 UCA 40-10-22 (1)(c)

Failure to abate NOV 85-4-4-2 within the time set for abatement.

Comply with the remedial actions required in the violation, immediately.

Terminated 3/22/85.

NOTICE OF VIOLATION 85-4-11-1 (4/4/85)

Part 1 of 1 UMC 817.42 (c)

Failure to maintain water treatment facilities as approved.

Maintain facilities in accordance with approved plan.

Penalty pending.
Terminated 4/4/85.

NOTICE OF VIOLATION 85-4-17-3 (5/13/85)

Part 1 of 3 UCA 40-10-22 (1)(c), UMC 771.19, UMC 43 (a)

Failure to construct and maintain diversion to (manshaft and No. 2 Canyon) divert runoff from a sediment pond, to ensure that they will pass safely the

peak runoff from a 10 year, 24 hour precipitation event. Failure to mine in accordance with an approved interim mine plan.

Construct and maintain the diversions in accordance with the approved plan.

Penalty pending.
Terminated 5/13/85.

Part 2 of 3 UCA 40-10-22 (1)(c), UMC 771.19, UMC 817.46 (e)(1)(m) UMC 817.47

Failure to conduct mining activities in accordance with an approved interim permit (coarse refuse toe pond).

Failure to provide an adequate discharge structure.

Reconstruct and maintain the pond to meet approved design specifications. Submit complete and adequate plans to the Division for adequate erosion protection of the emergency spillway outlet.

Penalty pending.
Waiting for State Board of Health approval.

Part 3 of 3 UMC 817.49 (b), UMC 817.46 (e)

Failure to construct and maintain a pond (001 mine water pond) to prevent short circuiting to the extent possible.

Cease pumping water into the pond. Submit complete and adequate plans to the Division which show how piping along the spillway will be stopped.

Penalty pending.
Terminated 5/13/85.

CESSATION ORDER 85-4-6-1 (6/20/85)

Part 1 of 1 UCA 40-10-22(i)(c)

Failure to abate a violation within the time set for abatement. Water was discharged into the pond without approval.

Comply with the remedial actions required in the violation, immediately.

Penalty pending.
Terminated 6/20/85.

NOTICE OF VIOLATION 85-4-19-1 (6/20/85)

Part 1 of 1 UMC 817.45

Failure to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area.

Cease all discharge into and from the clear water pond until otherwise notified in writing by the Division.

Submit complete and adequate plans to the Division detailing what measures will be taken to repair the damage to the slurry cell system to ensure that discharge from the clear water pond will meet all applicable state and federal water quality standards.

Implement said plan immediately upon Division approval.

Not abated.
Penalty pending.

NOTICE OF VIOLATION 85-4-20-2 (6/21/85)

Part 1 of 2 UCA 40-10-22(i)(c) UMC 771.19 UMC 817.42(a)(i)

Failure to mine in accordance with an approved interim mine plan (parking lot and office area runoff).

Remedial actions completed.

Penalty pending.
Terminated 7/25/85.

Part 2 of 2 UMC 817.42(c)

Failure to maintain water treatment facilities (course refuse seep).

Remedial actions completed.

Penalty pending.
Terminated 6/28/85.

NOTICE OF VIOLATION 85-4-21-3 (7/25/85)

Part 1 of 3 UCA 40-10-18(2)(i)(ii) UMC 817.41(c) UMC 817.42(a)(1) UMC 817.45

Failure to meet state and federal water quality effluent limitations.

Failure to pass all disturbed area drainage through a sediment pond before leaving the permit area.

Failure to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area.

Plug both the inlet and outlet of the pipe permanently or remove the culvert.

Abated 7/25/85.
Penalty pending.
Terminated 8/29/85

Part 2 of 3 — UCA 40-10-18(2)(i)(ii) UMC 817.42(a)(1) UMC 817.43(c) UMC 817.45

Failure to pass all surface drainage from the disturbed area through a sediment pond before leaving the disturbed area.

Failure to maintain a diversion in a manner which prevents additional contributions of suspended solids to stream flow or runoff outside the permit area.

Failure to minimize erosion to the extent possible.

A. Maintain the downspout and diversion ditch from the downspout to the sediment pond.

B. Submit complete and adequate plans to the Division for the stabilization of the old coarse refuse pond area collection ditch, to repair the diversion and protect it from further erosion. Implement these plans immediately upon Division approval.

NOV abatement deadline extended to 9/23/85. Final approval on plans received 10/29/85.

Penalty pending.

CESSATION ORDER 85-4-8-3 (9/25/85)

Part 1 of 3 — UCA 40-10-22(1)(c) UMC 843.11(b)(1) UMC 843.12(d)

Failure to abate a Notice of Violation within the time set for abatement.

Comply with part A of the remedial actions required in the violation immediately.

Cleaned out and maintained downspout as required.

Terminated 9/30/85.

Part 3 of 3 — UCA 40-10-22(1)(c) UMC 771.19

Failure to conduct mining activities in accordance with an approved interim permit.

Submit complete and adequate plans to the Division to modify the approved design and which ensure compliance with UMC 817.46 and UMC 817.49. Plans must be implemented immediately upon approval.

Final approval on plans received 10/29/85.

Penalty pending.

NOTICE OF VIOLATION 85-4-24-3 (9/6/85)

Part 1 of 3 UCA 40-10-18(2)(i)(ii) UMC 771.19 UMC 817.45

Failure to mine in accordance with an approved interim permit.

Failure to install and maintain sediment controls to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area.

Implement the drainage control plans approved for the site.

NOV abatement deadline 9/23/85. Water canyon drainage controls were implemented.

Penalty pending.
Terminated 9/27/85.

CESSATION ORDER 85-4-8-3 (9/25/85)

Part 2 of 3 UCA 40-10-22(1)(c) UMC 843.11(b)(1) UMC 843.12(d)

Failure to abate Notice of Violation within the time set for abatement.

Comply with the remedial actions required in the violation immediately.

Drainage controls were implemented.

Terminated 9/27/85.

Part 2 of 3 UCA 40-10-18(2)(i)(ii) UMC 817.45 UMC 817.150(a)(b) UMC 817.153(a)(2)

Failure to maintain sediment controls to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area.

Failure to maintain Class I roads in order to minimize contributions of suspended solids to stream flow or runoff outside the permit area.

Maintain the silt fences at the stream crossing: Clean out sediment collected, dispose of the sediment properly, and reinstall the silt fence as necessary to ensure the runoff does not short circuit it.

Maintain a berm (minimum height 2 feet) along the outside edge of the road where it parallels Grassy Trail Creek and remove the material deposited along the inside of the road which inhabits runoff from the road from entering the slurry ditch.

Abatement deadline 9/17/85
Class I drainage controls were maintained.

Penalty pending.
Terminated 9/27/85.

CESSATTION ORDER 85-4-8-3 (9/25/85)

Part 3 of 3 UCA 40-10-22(1)(c) UMC 893.11(b)(1) UMC 843.12(d)

Failure to abate a Notice of Violation within the time set for abatement.

Comply with the remedial actions required in the violation, immediately.

Class I road drainage controls were maintained.

Terminated 9/27/85.

Part 3 of 3 UCA 40-10-22(1)(c) UMC 771.19 UMC 817.45

Failure to mine in accordance with an approved interim permit.

Failure to maintain sediment control measures to minimize erosion to the extent possible.

Maintain diversion D-3 to design specifications.

Remove all large boulders from the #2 canyon undisturbed drainage which will significantly obstruct flow.

Abatement deadline 9/23/85
#2 canyon undisturbed drainages maintained

Penalty pending.
Terminated 9/25/85.

York Canyon Mines
Colfax County, New Mexico

Regulatory Authority:
State of New Mexico
Energy and Minerals Department
Mining & Minerals Division
Santa Fe, New Mexico

NOTICE OF VIOLATION 011 (08/31/83)

Part 1 of 1 Rule 80-1, Chapter K Section 22

Underground leakage of diesel fuel from buried diesel line polluting undetermined portion of York Canyon alluvial aquifer.

Diesel leak was abated within 90 days.

No penalty assessed.
Terminated 11/28/83.

NOTICE OF VIOLATION 144 (4/18/84)

Part 1 of 1 Rule 79-1, Section 21, Topsoil Handling

Failure of the operator to stockpile topsoil in a stable area.

Constructed ditch/berm adjacent to stockpile.

Informal conference held 6/15/84.
No penalty assessed.
.5 History Points
Terminated 5/21/84.

NOTICE OF VIOLATION 145 (4/18/84)

Part 1 of 1 Rule 79-1, Section 21, Topsoil Handling

Failure to segregate topsoil material from mined out overburden material.

Constructed ditch/berm around topsoil stockpile.

Informal conference held 6/15/84.
No penalty assessed.
.5 History Points
Terminated 5/21/84.

NOTICE OF VIOLATION 146 (4/18/84)

Part 1 of 1 Rule 79-1, Section 19, Backfilling and Grading

Failure to stabilize rills and gullies over nine inches deep.

Filled rills and gullies with topsoil or rock material.

Informal conference held 6/15/84.
No penalty assessed.
.5 History Points
Terminated 5/21/84.

NOTICE OF VIOLATION 147 (4/18/84)

Part 1 of 1 Rule 79-1, Sections 23(E0(8) and 15(b) and NMSA Section 69-25A-19(B)(10)(C)

Failure to be certified by a qualified professional engineer registered in New Mexico for all structures which act as the final impoundment of runoff from the permit area.

Informal conference held 6/15/84
Vacated 7/2/84.

NOTICE OF VIOLATION 150 (5/28/84)

Part 1 of 1 Rule 79-1, Section 19, Backfilling and Grading (715.14)(i)

Failure to stabilize rills and gullies over nine inches deep.

Informal conference held 7/20/84.
No penalty assessed.
.5 History Points
Terminated 7/3/84.

NOTICE OF VIOLATION 155 (6/12/84)

Part 1 of 1 Rule 79-1, Section 21, Topsoil Handling

Failure of operator to remove contamination from the topsoil stockpile and to prevent water erosion of topsoil stockpile.

Constructed berm around topsoil stockpile.

Informal hearing held 7/20/84.
$1,000 penalty assessed.
1 History Point
Terminated 7/3/84.

NOTICE OF VIOLATION 156 (7/6/84)

Part 1 of 2 Rule 79-1, Section 23(e)(vi)(5)

Failure of the operator to have a properly installed (constructed) spillway system for a sediment pond.

Informal conference held 8/2/84
Vacated 9/7/84

Part 2 of 2 Rule 79-1, Section 23(1)(2)(iii)

Failure of the operator to construct culverts to avoid erosion at inlets and outlets.

Informal conference held 8/2/84
Vacated 9/7/84.

NOTICE OF VIOLATION 157 (7/6/84)

Part 1 of 1 Rule 79-1, Section 23(vi)(f)

Failure of the operator to control discharges from sedimentation ponds and diversions to reduce erosion and prevent deepening or enlargement of stream channels and to minimize disturbances to the hydrologic balance.

Rip rap material placed in discharges of diversion and spillway.

Informal conference held 8/2/84.
No penalty assessed.
.5 History Points
Terminated 8/24/84.

NOTICE OF VIOLATION 158 (7/6/84)

Part 1 of 1 Rule 79-1, Section 19(i)

Failure of the operator to regrade or stabilize rills and gullies deeper than nine inches that have formed in areas that have been regraded and the topsoil replaced but vegetation has not yet been established.

Rip rap material placed in rills.

Informal conference held 8/2/84.
No penalty assessed.
.5 History Points
Terminated 8/24/84

NOTICE OF VIOLATION 159 (7/6/84)

Part 1 of 1 Rule 79-1, Section 23(e)(vi)(5)

Failure of the operator to have a properly installed (constructed) spillway system for sedimentation pond.

Informal conference held 8/2/84.
Vacated 9/7/84.

NOTICE OF VIOLATION 160 (7/6/84)

Part 1 of 1 — Rule 79-1, Section 69-25A-19(B)(10)(C) NM-CSMS Section 23(E)(8)

Failure of the operator to have all sedimentation structures (ponds) which present suspended solids to stream flow or runoff outside of the permit area, to be certified after construction by a qualified professional engineer registered in New Mexico.

Informal conference held 8/2/84.
No penalty assessed.
.5 History Points
Terminated 10/9/84.

NOTICE OF VIOLATION 161 (7/10/84)

Part 1 of 1 — Rule 79-1, NMSA Section 69-25A-19(B)(10)(C) NM CSMC Section 23(E)(8)

Failure of the operator to have all sedimentation structures (ponds) which prevent suspended solids to stream flow or runoff outside of the permit area, to be certified after construction by a qualified professional engineer registered in New Mexico.

Informal conference held 8/2/84.
No penalty assessed.
.5 History Points
Terminated 10/9/84.

NOTICE OF VIOLATION 165 (8/14/84)

Part 1 of 1 — Rule 79-1 NMSA Section 21 (B)(iii) NM CSMS Section 19(i)

Failure of operator to protect topsoil from wind and water erosion.

Failure of operator to regrade or stabilize rills or gullies deeper than 9 inches.

Informal conference held 10/15/84.
No penalty assessed.
.5 History Points
Terminated 9/14/84.

NOTICE OF VIOLATION 191 (10/18/84)

Part 1 of 2 — Findings of fact 6 (d) Permit No. 1-A-2 Surface
Conclusions of law 3 Permit No. 1-A-2 (Surface)

Failure of the operator to fulfill the conditions of their permit. (Findings of fact, conclusions of law.) The operator graded, topdressed and seeded an

area (slope) in excess of 15 degrees and in excess of that which occurred before mining. The slope was measured in two areas with a clinometer. Measured slopes were 37% (20° 18') and 42% (22° 47').

Informal hearing held 1/14/85.
No penalty assessed.
.5 History Points
Terminated 1/16/85.

Part 2 of 2 Rule 79-1, Section 19(i)

Failure of the operator to regrade or stabilize rills and qullies deeper than nine inches that have formed in areas that have been regraded and topsoil replaced but vegetation has not yet been established.

Informal hearing held 1/14/85.
Vacated 1/14/85; NOV was improperly written.

Order to Show Cause (12/7/84)

NMSA Section 69-15A-25(c)(1978 Comp.)

Stipulated agreement signed between MMD and Kaiser

Public hearing held 1/18/85.
No revocation of permit.

NOTICE OF VIOLATION 192 (12/28/84)

Part 1 of 1 Rule 79-1, Section 69-25A-19(B)(14) CSMC Section 23(e)(2)(i)

Failure of the operator to ensure that all debris are treated or buried and compacted or otherwise disposed of in a manner designed to prevent contamination of ground or surface waters.

Failure of the operator to provide 24-hour theoretical detention time for the inflow or runoff entering a pond from a 10 year 24 hour precipitation event. The operator discharged water from a pond containing some contaminants into the York Canyon stream in the absence of a 10 year 24 hour precipitation event (surface oil).

Informal hearing held 2/18/85.
Vacated 3/8/85.
No penalty assessed

NOTICE OF VIOLATION 193 (12/28/84)

Part 1 of 1 — Rule 79-1, Section 69-25A-19(B)(17) CSMC Section 23 (L)(2)(i)

Failure of the operator to maintain roads in a manner that decreases erosion. Runoff from an active access road had been discharged onto an undisturbed area in a manner that created rills and gullies deeper than nine inches.

Abated 1/8/85.
Informal hearing held 2/18/85.
No penalty assessed.
.5 History Points

NOTICE OF VIOLATION 200 (2/21/85)

Part 1 of 3 — Rule 80-1, Section 19-15(j)

Failure of the operator to restrict their surface facilities and areas to be disturbed to those areas described under Items #1, 3, and 4 of the exploration plan section of permit application.

Failure of the operator to provide sediment control measures.

Failure of operator to notify MMD by letter of any deviations from the exploration plan.

Failure of the operator to protect off-site areas from damage by locating any part of the operations outside the permit area.

Informal hearing held 4/4/85.
$1,200 penalty assessed.
Terminated 4/29/85.

Part 2 of 3 — NMSA Section 69-25A-19(B)(17)

Failure of the operator to maintain a primary road so as to control or prevent erosion and siltation. A discharge (s) from the primary access road caused erosion in excess of nine inches. The road berm had apparently been intentionally breached to allow discharge of water which had collected on the road surface.

Informal hearing held 4/4/85.
$1,100 penalty assessed.
Terminated 4/29/85.

Part 3 of 3 — Permit E-18 Coal Exploration Stipulation #7

Failure of the operator to notify the Mining and Minerals Division by letter of any deviations from the exploration plan section of the exploration mine permit application for the upper left fork seam in the Upper York Canyon Exploration Permit #E-16. The operator drilled a well within the permit area that was not included in the exploration plan.

Informal hearing held 4/4/85.
No penalty assessed.
Terminated 4/29/85.

NOTICE OF VIOLATION 255 (6/19/85)

Part 1 of 1

Failure of the operator to selectively place topdressing on a stable area in a manner where it will not be disturbed or subject to wind and water erosion, unnecessary compaction or contaminants. The operators excavated topdressing but did not place material in a stockpile or other stable protected area.

Abated.
No penalty assessed.
.5 History Points

Chimney Rock Coal Mine
Archuleta County, Colorado

Regulatory Authority
State of Colorado
Department of Natural Resources
Mined Land Reclamation Division
Denver, Colorado

NOTICE OF VIOLATION 83-5 (2/83)

Failure to submit the information required by Stipulations 13, 20, and 22 by the required time frames. The information was due February 6 and was submitted February 9.

Assessment conference held 4/14/83.
$1,050 penalty assessed.
Terminated.

NOTICE OF VIOLATION 83-6 (2/83)

Failure to adequately mark the permit boundary. As a result, surface coal mining operations were being conducted outside of the approved permit area. The area was flagged off and equipment kept out. Disturbance was on a rocky area, so as to keep it to a minimum.

Assessment conference held 4/14/83.
$1,100 penalty assessed.
Terminated.

NOTICE OF VIOLATION 83-10 (3/83)

Operator failed to comply with the terms of the approved permit. Specifically, sedimentation pond 004 was constructed closer to the ephemeral drainage channel than approved. The toe of the outslope of the embankment is less than 4 feet from the centerline of drainage. The pond has been reconstructed so that the outside toe of the west embankment is 40 feet from the centerline of ephemeral drainage channel.

$900 penalty assessed.
Terminated.

NOTICE OF VIOLATION 83-40 (8/83)

Operator augered coal beyond permit boundary. One hole was approximately 10 ft. to 20 ft. beyond line.

$800 penalty assessed.
Terminated.

NOTICE OF VIOLATION 83-29 (10/83)

Issued for failure to provide documentation that adequate bonding will be available for the mine site past the expiration date of the existing bond.

No penalty assessed.
Abated 11/9/83.

NOTICE OF VIOLATION C-84-14 (2/16/84)

Act Section(s) 34-33-120(2)(e)
Regulation Section(s) 4.06.1 and 4.06.4(2)(b)

Failure to protect topsoil and failure to follow approved mine plan. Specifically a portion of the southern half of the east pit which has been topsoiled and seeded during the fall of 1983, subsequently had spoil material placed over it which compacted and contaminated the topsoil.

Assessment conference held 4/3/84.
$1,100 penalty assessed.
Abatement plan submitted to the Division on 3/2/84.
Terminated 5/30/84.

NOTICE OF VIOLATION C-84-21 (2/16/84)

Act Section(s) 120 (2)(e)
Regulation Section(s) 4.06.3(2)(b)

Moving a soil stockpile without Division approval. Specifically the stabilized and revegetated stockpile west of Sediment Pond No. 002 was moved to a location on top of the graded fill in the east pit area.

Informal hearing held 4/3/84.
$2,175 penalty assessed.
Abatement plan submitted to Division on 3/16/84.
Terminated.

NOTICE OF VIOLATION C-84-022 (2/16/84)

Permit Section(s) Sec. 2.05 of Permit Revision No. 1

Failure to follow approved mine plan. Specifically fill material was placed to a depth of about 9 feet in an area of approximately 340 by 150 feet by 350 feet by 180 feet. The filled area was located adjacent to and west of Sediment Pond No. 002 in an alluvial valley floor.

Informal hearing held 4/3/84.
$2,912.50 penalty assessed.
Abatement plan submitted to the Division on 3/16/84.
Terminated 6/7/84.

NOTICE OF VIOLATION CV-84-024 (3/8/84)

Act Section(s) 120(2)(j)
Regulation Section(s) 4.05.4

Relocation of the stream channel of Stollsteimer Creek without approval by the Division.

An abatement letter sent to the Division on 3/16/84.
An informal hearing held on the site on 4/3/84.
$2,800 penalty assessed.
Terminated 6/6/84.

NOTICE OF VIOLATION CV-84-025 (3/8/84)

Act Section(s) 120(2)(e)
Regulation Section(s) 4.06

Failure to salvage stockpile, and protect topsoil as required.
An abatement letter was submitted to the Division on 3/16/84.

$2,225 penalty assessed.
Terminated 6/6/84.

NOTICE OF VIOLATION CV-84-026 (3/8/84)

Act Section(s) 129(2)(j)(II)
Regulation Section(s) 4.05.5

Failure to provide an adequate and functional sediment control system.

An abatement plan was submitted to the Division on 3/16/84.
$650 penalty assessed.
Terminated 6/6/84.

NOTICE OF VIOLATION C-84-156 (8/23/84)

Regulation Section(s) 4.08.4(2)

Blasting outside times announced in published blasting schedule specifically at 8:20 AM on 8/2/84. Schedule called for blasting 1/2 hour from 10 AM to 7 PM.

Assessment conference held 10/2/84.
$1,100 penalty assessed.
Terminated 10/15/84.

NOTICE OF VIOLATION C-84-171 (11/27/84)

Regulation Section(s) 5.03.2 (2)(a)
Act Section(s) 34-33-123(2)

Failure to follow the approved permit in that subsoil from in place subsoil salvage area F was removed and placed in an unapproved location (the east pit). This material was approved to be placed on the facilities area and on Barren Ridge, but not on the East Pit.

Abatement plan submitted 12/20/84.
$1,350 penalty assessed.
Terminated 12/31/84.

COLORADO COAL MINE NO. 1
Huerfano County, Colorado

Regulatory Authority:
State of Colorado
Department of Natural Resources
Mined Land Reclamation Division
Denver, Colorado

NOTICE OF VIOLATION C83-20 (10/7/83)

Act (Section(s) 34-33-123(2)
Regulation Section(s) 5.02.2(2)(a), 3.02.4(2)(6)

Failure to meet the conditions of permit approval. Specifically, failure to post sufficient bond by 8/25/83 as required by Proposed Decision and Findings of Compliance issued on 6/16/83.

Perma did not meet the deadlines for bonding and was assessed a $27,000 penalty.

Violation terminated following a hearing with the Mined Land Reclamation Board in 3/84.

NOTICE OF VIOLATION C-84-011 (2/13/84)

Act (Section(s) 120(2)(j)(II)
Regulation Section(s) 4.05.5(1)

Failure to maintain sediment control measures by failure to clean culvert of sediment in the collector ditch.

Culvert was cleaned of sediment.

Assessment conference held 7/6/84
$800 penalty assessed.
Terminated 7/13/84.

NOTICE OF VIOLATION C-84-012 (2/13/84)

Act Section(s) 120(2)(e)
Regulation Section(s) 4.07.3(2)(a)(i)

Failure to stabilize and protect stockpile soil materials with an effective vegetative cover.

Operator indicated that the areas had been drilled and seeded in the falls of 1982 and 1983. A fence was installed to protect the revegetation.

Assessment conference held 7/6/84
$1,350 penalty assessed
Terminated 7/6/84.

NOTICE OF VIOLATION C-84-034 (3/8/84)

Act Section(s) 34-33-120(2)(j)
Regulation Section(s) Rule 4.05.3(3)

Failure to stabilize and maintain diversion ditches.

The diversion ditches were repaired and or reconstructed.

Assessment conference held 7/6/84.
$464 penalty assessed.
Terminated 6/12/84.

NOTICE OF VIOLATION C-84-035 (3/8/84)

Act Section(s) 34-33-123(2)
Regulation Section(s) 5.03.2(2)(a)

Failure to follow the approved mine plan. Specifically, constructing a diversion ditch which was not approved by the Division.

A technical revision was submitted in order to bring the ditch into compliance.

Assessment conference held 7/6/84
$400 penalty assessed.
Terminated 6/12/84.

NOTICE OF VIOLATION C-84-036 (3/8/84)

Act Section(s) 34-33-120-(2)(j)(II)(A)
Regulation Section(s) 4.05.6(8)(g)

Failure to stabilize the pond embankment with respect to erosion by establishing a vegetative cover.

The problem was mitigated by previous seeding and new fencing. With further information the Division agreed that the material in question was not a pond embankment, but rather an overburden stockpile, and as a result it was not subject to the same requirements for stabilization and vegetative cover.

Vacated 7/9/84.

NOTICE OF VIOLATION C-84-037 (3/8/84)

Act Section(s) 34-33-120(2)(j)(II)(B)
Regulation Section(s) 4.05.6(t)

Failure to have sedimentation pond certified by a qualified registered professional engineer following construction and submit such certification to the Division.

Certification was submitted to the Division

Vacated 7/12/84.

NOTICE OF VIOLATION C-84-038 (3/8/84)

Act Section(s) 34-33-122(2)
Regulation Section(s) 4.05.13(1)

Failure to monitor ground water.

A monitoring plan was submitted to the Division by Mr. Rob Traylor of Piteau and Associates. Monitoring has been ongoing since.

Assessment conference held 7/6/84.
$500 penalty assessed.
Terminated 6/12/84.

NOTICE OF VIOLATION C-84-069 (4/23/84)

Act Section(s) 34-33-120(2)(j)
Regulation Section(s) 4.04(3), 4.05(1)

Failure to maintain drainage control structures.
Specifically, failure to clean the diversion ditch of sediment by the specified compliance deadline.

Ditch was cleaned and reconstructed. Surveys were completed in order to assure proper grades.

Assessment conference held 7/6/84.
$900 penalty assessed. See Cessation Order C-84-129.

CESSATION ORDER C-84-125 (6/25/84)

Act Section(s) 34-33-123(3)
Regulation Section(s) 5.03.2(3)

Failure to properly abate NOV C-84-012.

A letter of explanation was issued to the Division on 7/10/84.

Terminated 7/5/84.

CESSATION ORDER C-84-126 (6/25/84)

Act Section (s) 34-33-123(3)
Regulation Section (s) 5.03.2(3)

Failure to abate NOV C-84-034.

A letter of explanation was issued to the Division on 7/10/84.

Terminated 7/5/84.

CESSATION ORDER C-84-127 (6/25/84)

Act Section (s) 34-33-123(3)
Regulation Section (s) 5.03.2(3)

Failure to properly abate NOV C-84-035.

A letter of explanation was sent to the Division on 7/10/84.

Terminated 7/5/84.

CESSATION ORDER C-84-128 (6/25/84)

Act Section(s) 34-33-123(3)
Regulation Section(s) 5.03.2(3)

Failure to properly abate NOV C-84-036.

A letter of explanation was sent to the Division.

Vacated along with NOV C-84-036 on 7/9/84.

CESSATION ORDER C-84-129 (6/25/84)

Act Section(s) 34-33-123(3)
Regulation Section(s) 5.03.2(3)

Failure to properly abate NOV C-84-069.

Ditch problem was mitigated.

Assessment conference held 9/10/84.
$850 penalty assessed.
Terminated 7/5/84.

NOTICE OF VIOLATION C-84-155 (8/15/84)

Act Section(s) 34-33-111(1)(e), 120(2)(e), 120(2)(j) (II)(A)

Regulation Section(s) 2.05.3(6), 4.06, 4.05.2(1)

Assessment conference held on 9/10/84.
$850 penalty assessed.
Terminated 12/18/84.

NOTICE OF VIOLATION C-84-161 (9/26/84)

Act Section(s) 34-33-120(2)(j)
Regulation Section(s) Rule 4.05.3(3)

Failure to maintain diversion culvert.

Culvert was removed and cleaned.

Assessment conference held 12/11/84.
No penalty assessed, since the county road ditch contributed most of the sediment which clogged the culvert.

A new culvert was to be installed by the county.
Terminated 11/26/84.

NOTICE OF VIOLATION C-85-017 (3/6/85)

Act Section(s) 34-33-122(2).
Regulation Section(s) Rule 4.05.12(2)(c).

Failure to maintain surface water monitoring station.

Vandalized station was replaced immediately.
Informal conference held 5/20/85.
No penalty assessed.
Terminated 3/15/85.

APPENDIX A

PERMITS AND VIOLATIONS

FROM 6/30/83

This Appendix contains a list of the permits and a violation history for each District of U. S. Steel Mining Company, Inc.

Prior to June 1, 1981, all Districts operated coal mines and support facilities under the name of United States Steel Corporation.

U. S. Steel Mining Co., Inc.

Cumberland District, Waynesburg, Pa. (Department of Environmental Resources)

Current

Permit No.	Date
101-6	January 13, 1976
3073305	January 11, 1974
500088	September 9, 1976

U.S. Steel Mining Co., Inc.
A Subsidiary of United States Steel Corporation

To: Glenn Sides
Western Coal

Date: April 19, 1983

From: G. R. Carter, Jr.
Chief Engineer
Cumberland District

Subject: Permanent Program Permit Application

Per Larry King's letter of April 6, 1983, find attached Cumberland's updated list of Permits and Violation History.

RAM:sa
Attachment

cc: L. King - w/att.

3. Continued

Subsequent Action

The discharge from the Equalization Pond became permitted Outfall 014 on November 2, 1981. Sediment control facilities were installed for runoff control.

4. Date — Regulatory Authority

8/7/80 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A PaDER inspection report noted a violation of the Clean Stream Laws of Pennsylvania for alleged discharging from emergency pond without a permit. In a meeting with PaDER it was indicated that a two (2) inch line was being installed from the emergency pond to the raw water pond, and that unpermitted discharge had ceased.

Subsequent Action

Discharge became permitted outfall 015 on November 2, 1981.

5. Date — Regulatory Authority

9/2/80 — Office of Surface Mining

Description - CO 80-1-31-2 (2 Violations)

Cessation orders were issued ceasing operations at the raw coal stockpile, the refuse area transfer bin, and the refuse area eastern haulroad because of failure to abate NOV 80-1-31-9 of May 28, 1980 (Items 1 (b) and 1 (c) above). Remedial work at the refuse area bin and the raw coal stockpile resulted in a termination of the part of the CO pertaining to those areas on September 3, 1980, and September 15, 1980, respectively. The part of the CO dealing with the refuse area eastern haulroad was terminated on Septebmer 25, 1980, after remedial work was complete.

Fines assessed on this CO on October 20, 1981, were $27,000.00 ($750.00 per day for each violation). Fines were paid.

6. Date — Regulatory Authority

1/20/81 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A letter from PaDER noted a violation of the Clean Stream Laws of Pennsylvania for alleged discharging from Equalization Pond at refuse area without a permit during December 30, 1980, inspection. Discharge was stopped.

Violation History

1. Date — Regulatory Authority

5/28/80 — Office of Surface Mining

Description - NOV 80-1-31-9 (4 Violations)

NOV for alleged noncompliance with the following Interim Surface Mining Control and Reclamation Performance Standards:

a) 30 CFR 710.11 (a) (2) - diverted the flow of a perennial or intermittent stream.

b) 30 CFR 717.17 (a) - inadequate sediment ponds or other structures.

c) 30 CFR 716.17 (c) - inadequately maintained diversion ditch.

d) 30 CFR 715.16 (a) - failure to remove or segregate topsoil prior to surface disturbance.

Remedial action was taken for Item a) and the violation was terminated July 2, 1980.

A sediment pond and diversion ditches were installed in prep plant area to partially abate violation b), however, cessation orders were issued on part of Item b) and on item c). See details in part five (5) below.

Item d) was abated as it was being written, and vacated January 22, 1981. Fine accessed on this NOV on October 15, 1980 were $4,300.00.

2. Date — Regulatory Authority

7/2/80 — Office of Surface Mining

Description - NOV 80-1-31-14

Notice of Violation for failure to post signs at plant entrance gates showing all I.D. Numbers, as stated in 30 CFR 717.12 (b). Signs were posted to abate violation. No penalty was assessed.

3. Date — Regulatory Authority

7/9/80 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A letter from PaDER noted violations of the Clean Stream Laws of Pennsylvania as a result of May 8 and June 26, 1980, inspections. An alleged unpermitted discharge from Equalization Pond was entering Whiteley Creek by way of overflow weir at the pond. Other alleged violations of the Clean Stream Laws were the same as OSM violations listed in Item 1 b) above.

6. Continued

Subsequent Action

Discharge became permitted outfall 014 on November 2, 1981.

7. Date: 2/12/81 — Regulatory Authority: Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A tanker-type truck delivering rock dust to the mine, accidentally went over an embankment spilling diesel fuel from its fuel tanks into the stream. PaDER inspection of February 12, and February 19, 1981, resulted in a request by PaDER for a joint cleanup of the spill by U. S. Steel and Martin Marietta Aggregates (supplier of rock dust). No specific NOV was issued to U. S. Steel, only the request by PaDER for cleanup.

8. Date: 2/27/81 — Regulatory Authority: U. S. Environmental Protection Agency

Description

Received request for information relative to diesel fuel spill in Item 7 above. Again no specific NOV given, only a request for information.

9. Date: 4/30/81 — Regulatory Authority: Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A PaDER inspection report noted violations during inspection of April 30, 1981, for alleged inadequate freeboard on two environmental ponds and an unpermitted discharge from the refuse area Equalization Pond. PaDER granted a U. S. Steel request for approval of an emergency discharge to bring pond levels down to provide the required two-foot freeboard. The Equalization Pond discharge was ceased.

Subsequent Action

The discharges from the Emergency Pond and Equalization Pond became permitted outfalls on November 2, 1981.

10. Date: 8/17/81 — Regulatory Authority: United States Coast Guard

Description

U. S. Coast Guard representatives made an inspection of an oil discharge into the stream reported by U. S. Steel. The July 28, 1981 inspection resulted in a letter from the U. S. Coast Guard informing U. S. Steel of applicable laws. The inspectors were pleased with U. S. Steel's cleanup procedure and required nothing more.

Subsequent Action

$200.00 fine assessed by U. S. Coast Guard.

11. Date: 10/28/81 — Regulatory Authority: Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A PaDER inspection report was written for alleged violations of the Clean Stream Laws including an unpermitted discharge from the coal stockpile area, and inadequate runoff control at the coal stockpile area. Results of PaDER lab analysis of main sewage treatment plant samples showed BOD and fecal coliform levels in excess of permit limits. (Simultaneous sample taken by U. S. Steel did not show these alleged violations.) The PaDER lab analyses were not received by U. S. Steel until May 3, 1982.

Subsequent Action

Meetings were held on November 16, 1981, and January 22, 1982, in which OSM and PaDER agreed to U. S. Steel's proposed remedial action for controlling runoff from the coal stockpile and prep plant areas. This remedial action was completed by July 15, 1982, as agreed in the meetings. On April 9, 1982, PaDER requested that U. S. Steel enter into a Consent Order and Agreement to address items noted during the October 28, 1981, and other inspections. (See Item 20 below).

12. Date: 11/16/81 — Regulatory Authority: Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A PaDER inspection report was written for a site inspection after a meeting held with OSM, PaDER, and U. S. Steel. The report noted an alleged violation where blackwater was leaking from a broken valve. The valve was replaced later that day and the leak ceased. This item was included in the request for a Consent Order and Agreement by PaDER on April 9, 1982. (See Item 20 below).

13. Date — Regulatory Authority

11/18/81 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A PaDER inspection report was written noting an alleged violation for inadequate freeboard on the Emergency Pond. The sediments in this pond were cleaned out in November & December of 1980 to resolve the problem. U. S. Steel received the PaDER inspection report on May 3, 1982. This item was included on the request for a Consent Order and Agreement by PaDER on April 9, 1982. (See Item 20 below).

14. Date — Regulatory Authority

12/7/81 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A PaDER inspection report was written noting an alleged violation for an unpermitted discharge from a sludge drying pond. This PaDER inspection report was received by U. S. Steel on May 3, 1982. The Plant Superintendent denied that any such discharge had taken place. No subsequent action has been taken as of April 15, 1983.

15. Dates — Regulatory Authority

1/22/82 and 1/25/82 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

PaDER inspection reports for these dates note alleged violations for unpermitted discharges of oil from the prep plant stilling basin. These PaDER inspection reports were received by U. S. Steel on May 3, 1982. The remedial work agreed to in Item 11 above, included the removal of approximately 700 feet of storm sewer (believed to be damaged) and the installation of a new storm sewer line. In addition, oil skimmers were placed on the various discharge structures from the ponds. This item was included on the request for a Consent Order and Agreement by PaDER on April 9, 1982. (See Item 20 below).

16. Dates — Regulatory Authority

2/12/82 and 2/16/82 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

PaDER inspection reports for these dates noted alleged violations for unpermitted discharge from the prep plant stilling basin. Immediate remedial action included

16. Description - Continued

installation of a silt fence and hay bales to filter out suspended solids and, a reduction of water usage. The remedial work agreed to in Item 11 above included work to improve the quality of this discharge. This item was included in the April 9, 1982, request for a Consent Order and Agreement by PaDER. (See Item 20 below).

17. Date — Regulatory Authority

2/16/82 — Office of Surface Mining

Description - NOV 82-1-31-2

OSM issued NOV 82-1-31-2 for a blackwater discharge to the receiving stream. Remedial work is the same as in Item 16 above, as the two alleged violations are for the same discharge.

Subsequent Action

A termination of this NOV was issued on March 15, 1982. A $1,900.00 fine was assessed and paid.

18. Date — Regulatory Authority

3/4/82 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

A PaDER inspection report was written with "violations pending lab analysis". Results of PaDER's lab analysis were received by U. S. Steel on May 3, 1982, with no violations indicated. A Civil Penalty Assessment received by U. S. Steel from PaDER on January 31, 1983, included alleged violations from this inspection for high iron and high suspended solids in the refuse area diversion ditches. (See Item 19 and 25 below). No analysis results indicating the concentration of iron or suspended solids were received by U. S. Steel as of April 15, 1983.

19. Date — Regulatory Authority

3/16/82 — Office of Surface Mining

Description - NOV 82-1-31-7

As a result of a March 4, 1982 inspection (same as Item 18 above), OSM issued NOV 82-1-31-7 for erosion in diversion ditches. Remedial action consisted of replacing the ditches with a piped section and a fabriform-lined ditch.

Subsequent Action

A termination of this NOV was issued July 15, 1982, after remedial work was completed. A $2,700.00 fine was assessed and paid.

20. Date

4/9/82

Regulatory Authority

Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

PaDER sent U. S. Steel a copy of a Consent Order and Agreement to resolve outstanding matters relative to Cumberland Mine. Specific items included in the Consent Order are those referenced in Items 11, 12, 13, 15, and 16 of this Violation History. Work was already in progress as agreed to by PaDER to resolve items 11, 15, and 16. (See Item 11). Items 12 and 13 were already corrected. No agreement was reached between PaDER and U. S. Steel. Upon completion of the project as agreed to by PaDER, PaDER seemed satisfied and did not pursue the Consent Order and Agreement any further. On January 31, 1983, U. S. Steel received a Civil Penalty Assessment (for Items 12, 13, 16, and also 18) and a Complaint for Civil Penalties (for Item 11) to resolve the items. No settlement has been reached as of April 15, 1983. (See Item 25 below).

21. Date

8/6/82

Regulatory Authority

Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

PaDER Water Quality inspector contacted U. S. Steel by phone with results of analysis from a July 28, 1982 sample of the refuse area east diversion ditch. The sample results showed that the water, which was not discharging to the stream, allegedly was in violation because of high suspended solids. The Water Quality inspector said that he would notify the PaDER Bureau of Mine Reclamation inspector with these results. No NOV has been issued as of April 15, 1983. This item was included in the Civil Penalty Assessment received by U. S. Steel on January 31, 1983. (See Item 25 below).

22. Date

8/25/82

Regulatory Authority

U. S. Coast Guard/U. S. EPA

Description

As a result of U. S. Steel's notification to the EPA of oil entering Whiteley Creek, the EPA sent a questionnaire to be completed by U. S. Steel. Subsequently the U. S. Coast Guard assessed a fine of $200.00 which was paid to avoid time and expense of litigation.

23. Date

10/12/82

Regulatory Authority

Pennsylvania Department of Environmental Resources - Bureau of Mine Reclamation

Description

A PaDER inspection report noted the following alleged violations: (Refuse Area)

a) Diversion facilities not maintained - haulroad drainage is entering stream.
- diversion ditches have slips in them.

b) Runoff from adjacent area not diverted - diversion ditches have slips in them.

c) Runoff onto slopes is not controlled - the outslopes have a slope greater than 3 to 1.

d) Slopes not graded as approved - the outslopes have a slope greater than 3 to 1.

e) Sedimentation control is not operating properly - short-circuiting in sediment pond.

f) Impoundment is not being maintained - sediment needs removed from sediment pond.

g) Materials of low ignition points are being deposited on or near pile - wood in pile.

h) Slopes not being compacted - outslopes need compacted.

Remedial action was done as follows:

a) Cross drains were installed in the haulroad to collect the road runoff and keep it out of the tributary.

a) & b) The diversion ditches will be addressed in a revised refuse area final plan that is being prepared as of April 15, 1983.

c) & d) Outslopes will be reworked under the refuse area interim plan.

e) A ditch was rerouted to eliminate short-circuiting at the pond in early 1983.

f) Sediment was removed from the sediment pond in December 1982.

h) Slopes are to be graded and compacted under the refuse area interim plan.

No NOVs were issued on these items.

Subsequent Action

On October 25, 1982, PaDER and U. S. Steel held a meeting to review U. S. Steel's proposed interim plan for the refuse area. PaDER subsequently approved this plan on November 4, 1982, with the understanding that a refuse area final plan will be drawn up to address any other outstanding problems.

24. Date — Regulatory Authority

12/21/82 — Pennsylvania Department of Environmental Resources - Bureau of Mine Reclamation

Description

A PaDER inspection report noted the following alleged violations. (Refuse Area)

a) Buffer zone of 50 feet - trees are not cleared within 50 feet of refuse.

b) Diversion facilities not maintained - diversion ditches have slips in them.

c) Refuse compaction - temporary coarse refuse stockpile needs compacted.

d) Signs and perimeter markers - identification sign does not have PaDER Refuse I.D. Number, and perimeter markers were nonexistent.

The following actions were taken:

a) See Item 26 a) below.

b) Same as 23 a) & b) above.

c) The temporary stockpile was removed during buttress construction, therefore no compaction needed.

d) The signs were revised to include all required information and perimeter markers were installed.

No NOVs were issued and no penalties assessed.

25. Date — Regulatory Authority

1/31/83 — Pennsylvania Department of Environmental Resources - Bureau of Water Quality Management

Description

PaDER Water Quality inspector delivered a copy of a Complaint for Civil Penalties and a Civil Penalty Assessment which covered Item 11 and Items 12, 13, 16, 18, and 21 of this Violation History, respectively. No settlement has been reached as of April 15, 1983.

26. Date — Regulatory Authority

2/2/83 — Pennsylvania Department of Environmental Resources - Bureau of Mine Reclamation

Description

A PaDER inspection report noted the following alleged violations: (Refuse Area)

a) A fifty (50) foot clear space is not being maintained - trees need to be cleared.

26. Description - Continued

b) The coarse coal refuse storage for the buttress construction must be compacted.

c) Sediment pond should have an emergency spillway.

Remedial action was as follows:

a) A contractor cleared the trees from within fifty (50) feet of the refuse.

b) The stored material was used in buttress construction and eliminated the problem.

c) This will be addressed in the final refuse area plan.

No NOVs were issued and no penalties assessed.

RAM:sa

Glen Sides
Chief Engineer
Western District

U.S. Steel Mining Co., Inc.
a Subsidiary of United States Steel Corporation

Interorganization Correspondence

Date: April 11, 1983

From: Jim Canterbury
Environmental Engineer
Decota District

Subject: Updated Permit and Violation Lists

Attached please find an updated list of the reclamation permits and violations for the Decota District as of this date. If you should have any questions, please contact me at Steelcom 740-2298.

Jim Canterbury
Environmental Engineer
Decota District

JC/cb

Attachments

cc: W. G. Casto
L. King, Jr.
F. Boinski

U. S. Steel Mining Co., Inc.

Decota District - Chesapeake, W. Va. (Dept. of Natural Resources-Division of Reclamation)

Current

Permit No.	Date
155-76	July 29, 1982
44-77	"
63-78	"
3-79	"
27-81	"
S-23-81	"
S-60-82	"
H-145	"
H-228	"
H-300	"
H-364	"
H-437	"
H-599	"
S-501	"
O-14-82	"
R-752	"
U.O.-656	"
U.O.-668	"
U.O.-669	"
U.O.-670	"
U.O.-675	"
U.O.-706	"
U.O.-706AO	"
U.O.-724	"
U.O.-731	"
D-44-82	"
D-50-82	"
33-78	August 20, 1982
U.O.-468	"
U.O.-490	February 2, 1983
U.O.-535	February 2, 1983
S-103-82	March 3, 1983

PENDING

Morton Mine Complex
U-45-83
U-67-83
SMA 756
SMA 837

DECOTA DISTRICT - LIST OF NOTICES OF VIOLATIONS

DATE	REGULATORY AUTHORITY	OPERATION AND PERMIT NO.	VIOLATION	RESOLUTION
June 14, 1982	W. Va. DNR Reclamation Div.	No. 27 Mine (SMP 33-78)	Caused material to be placed on the down-slope where natural ground exceeds 20 degrees.	Notice Terminated on November 3, 1982
August 12, 1982	W. Va. DNR Reclamation Div.	Abbotts Hollow Refuse Site (0-14-82)	Discharged slurry over refuse slope without adequate safeguards to prevent erosion.	Notice Terminated on September 2, 1982
September 2, 1982	W. Va. DNR Reclamation Div.	Laing Stockpile (S-501)	Failed to properly maintain approved drainage system.	Notice Terminated on October 25, 1982
September 16, 1982	W.Va. DNR Reclamation Div.	New West Hollow Refuse Site (R-752)	Failed to clean out sediment control structure when the accumulation reached 60% of the design capacity.	Notice Terminated on September 30, 1982
December 14, 1982	W. Va. DNR Water Resources Div.	No. 9 Cleaning Plant (P-6027-79)	Negligently violated the terms and conditions of the permit by discharging black water from ponds into receiving stream.	Went to Magistrate and paid fine of $2630.
February 16, 1983	W. Va. DNR Reclamation Div.	Abbotts Hol. Refuse Site (0-14-82)	Failure to properly maintain haulroad from plant to refuse site.	Notice Terminated on March 31, 1983
March 25, 1983	W. Va. DNR Water Resources Div.	Abbotts Hol. Refuse Site (P-6027-79)	Discharge of water from permitted pond that did not meet the state effluent limitations.	Pending

To: Glenn Sides
Chief Engineer
Western District

U. S. Steel Mining Co., Inc.
a Subsidiary of United States Steel Corporation

Interorganization Correspondence

Date: April 7, 1983

From: Robert V. Hidalgo
Chief Engineer
Frick District

Subject: Permanent Program Applications

As requested by Larry King, we are providing a copy of the permit and violation history information with the Frick District portion updated to the present.

RVH

JDF/emd

cc: Larry King w/att.

U. S. Steel Mining Co., Inc.

Frick District, Uniontown, Pa. (Department of Environmental Resources)

Current

Permit No.	Date
101-1	September 1, 1966
3079302	November 19, 1979
101-2	September 1, 1966
466M076	March 20, 1967
101-5A	June 1, 1979
3073302	April 13, 1973
101-4	November 24, 1970
2670301	January 7, 1982

FRICK C AL DISTRICT

NOTICES OF VIOLATION

1. Mine: Dilworth (A r Shaft No. 3)
Date: 12/13/79
Regulatory Authority: OSM

Description: OSM inspec on resulted in issuance of NOV No. 79-I-31-45. NO for alleged noncompliance with the following Interim Su ace Mining Control and Reclamation Performance S ndards:

(1) 30 CF 717.17(a) - Failure to pass all surface drainage from the disturbed area through sediment ponds.

(2) 30 CF 17.17(a) - Failure to meet effluent limitations for TSS.

Remedial a ion taken with NOV terminated March 19, 1980.

Assessmen onference held May 9, 1980, resulting in a revised a sment reduced to $2,300.00. Assessment paid to avoid e and expense of litigation.

2. Mine: Dilworth e (Rices Landing Slope)
Date: 3/19/80
Regulatory Authority: OSM

Description: OSM inspe ion resulted in issuance of NOV No. 80-1-31-6. NOV for a ged noncompliance with the following Interim Surface M ng Control and Reclamation Performance Standard:

(1) 30 C 717.17(a) - Failure to install adequate sediment ponds or other structures to control runoff.

Remedial ion taken with NOV terminated on May 22, 1980.

Assessmen onference was held September 11, 1980, with the revis assessment reduced to $1,500.00. Assessment paid to a id time and expense of litigation.

3. Mine: Robena (Preparation Plant and Refuse Area)
Date: 4/09/80
Regulatory Authority: OSM

Description: OSM inspection resulted in issuance of NOV No. 80-1-31-7. NOV for alleged noncompliance with the following Interim Surface Mining Control and Reclamation Performance Standard:

(1) 30 CFR 717.17(a) - Failure to pass all runoff through a sediment pond.

(2) 30 CFR 717.17(a) - Failure to meet numerical effluent limitations for TSS.

Remedial action taken with NOV terminated on June 10, 1980.

Assessment conference was held September 11, 1980, with the revised assessment reduced to $1,400.00. Assessment paid to avoid time and expense of litigation.

4. Mine: Robena
Date: 7/23/80
Regulatory Authority: Pennsylvania Department of Environmental Resources

Description: Letter received from DER notifying USSC that Robena Slope has an alleged unauthorized discharge. Same letter gave notice of an alleged unpermitted discharge at the Robena Mine rock disposal area at Colvin. Same letter gave notice of a noncomplying discharge from the Robena Slurry Pond No. 4. Frick District has submitted a response to these allegations but DER has not replied as of September 30, 1980.

5. Mine: Frick District
Date: August 18, 1980
Regulatory Authority: Pennsylvania Department of Environmental Resources

Description: A letter was received from DER notifying USSC that we were in violation for operating an illegal solid waste disposal site. The site was an old mine site area where local residents were dumping trash. The property in question was not owned by the Corporation having been sold in 1966. A meeting was held with DER in which we explained their error and requested the notice be vacated. DER wrote a letter dated September 8, 1980, recinding the notice.

Mine: Maple Creek (Slurry Pond No. 2)
Date: 8/04/79 and 6/17/80 (Violations)
Regulatory Authorities: Pennsylvania Department of Environmental Resources
Pennsylvania Fish Commission

Description: Blackwater discharges occurred from Slurry Pond No. 2 on August 4, 1979 and June 17, 1980. Both were reported to DER in accordance with the discharge permit. An inspection report noting a violation was written for the second discharge. A meeting was held with DER and the Fish Commission representatives on August 28, 1980, in which we agreed to pay $250.00 for the first offense and $500.00 for the second offense, each to the DER and Fish Commission (Total $1,500.00). The Fish Commission fine was paid December 3, 1980. The DER fine was paid on December 6, 1980 and a settlement letter submitted on December 12, 1980.

7. Mine: Robena Mine (Frosty Run Borehole)
Date: 12/08/80
Regulatory Authority: Pennsylvania Department of Environmental Resources

Description: A letter dated December 8, 1980 was received from DER concerning noncomplying discharges from the Frosty Run Borehole. This letter required USSC to take corrective action to achieve compliance. The DER was notified on December 12, 1980 that the Frosty Run Borehole discharge had ceased on September 30, 1980.

8. Mine: Mt. Braddock Mine
Date: 1/06/81 (Inspection/Report) and 1/16/81 (Letter/Notice)
Regulatory Authority: Pennsylvania Department of Environmental Resources

Description: Mt. Braddock Mine was inspected on January 6, 1981. Inspection Report noted violations consisting of non-permitted discharges and an expired NPDES Permit. A follow-up letter/notice reaffirmed the notice for non-permitted discharges but vacated the charge of an expired NPDES Permit since USSC had filed the proper application. A reply was sent to DER which outlined the steps which would be taken to end the alleged unpermitted discharges.

9. Mine: Maple Creek Preparation Plant

Date: November 19, 1981

Regulatory Authority: OSM

Description: OSM inspection resulted in issuance of N.O.V. No. 81-1-42-22 for alleged noncompliance with the following:

(1) 30 CFR 717.17(a) - Failure to meet effluent limitations for total suspended solids.

Remedial action was taken and the N.O.V. terminated on December 28, 1981.

An assessment conference was held on January 14, 1982, and the assessment for the N.O.V. was eliminated.

10. Mine: Maple Creek Preparation Plant
Slurry Pond No. 1

Date: March 18, 1983

Regulatory Agency: Pennsylvania Department of Environmental Resources

Description: On December 28, 1982, there was a blackwater discharge from Slurry Pond No. 1. To eliminate future blackwater discharges, permission was received from the Division of Dam Safety to raise the water level to give greater detention time. To avoid the time and cost of litigating the notice of violation, U. S. Steel Mining Co., Inc., paid $1000 to the Department as a settlement.

To: Mr. Glenn H. Sides
Chief Engineer
Western District

U.S. Steel Mining Co., Inc.
a Subsidiary of United States Steel Corporation

Interorganization Correspondence

Date: April 26, 1983

From: William D. Allen
Chief Engineer
Gary District

Subject: Permanent Program Permit Applications

As requested in Larry King's letter of April 6, 1983, we have enclosed an updated listing of all the Gary District surface mining violations since December, 1978.

If you have any questions, please contact this office.

William D. Allen

Enclosures
/w

cc: L. King (w/enclosures)
W. C. Banner, Jr.

Surface Coal Mining Permits

U. S. Steel Corporation

Gary District - Gary, W. Va. (Dept. of Natural Resources-Division of Reclamation)

Current

Permit No.	Date	
U.O.-707	January 18, 1981	
E.M. - 25	May 27, 1980	
DR-21 to 112-70	August 16, 1972	
DR-21 to 56-69	November 19, 1970	
DR-21 to 226-73	January 23, 1975	
U.O.-467	September 19, 1979	(transfer)
DR-21 to 271-70 (1-61)	April 17, 1974	(transfer)
DR-21 to 527-70	May 20, 1974	
DR-21 to 94-71 (1-53)	June 1, 1973	(transfer)
21-80	March 10, 1980	

Pending

No. 2 Mine
No. 4 Mine
No. 9 Mine
No. 10 Mine
No. 14 Mine
No. 50 Mine

Shawnee
- Alpheus Preparation Plant
- Pinnacle Preparation Plant
- No. 6 Area Stockpile

DATE	ENFORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. OR D.N.R. ID#	VIOLATION	FINAL RESOLUTION
/22/78	W. Va. DNR Reclamation Div.	N.O.V.	Shawnee	D-9935	Mining on an area not covered by a surface mining permit.	Permit application was filed and approved 5/27/80. No official termination notice.
/6/79	O.S.M.	N.O.V.	Pinnacle Prep. Plant	-	Failed to pass all surface drainage from the disturbed area through a sedimentation pond.	Sedimentation ponds were constructed. Notice terminated 6/79.
/6/79	O.S.M.	N.O.V.	Pinnacle Prep. Plant	-	Discharged water which fails to meet the minimum effluent limitations for total suspended solids.	Sedimentation pond was cleaned. Notice terminated 5/79.
/6/79	O.S.M.	N.O.V.	50	D-6125	Failed to pass all surface drainage from the disturbed area through a sedimentation pond.	Ponds, sump and berms were constructed. Notice terminated 9/18/79.
/6/79	O.S.M.	N.O.V.	50	D-6125	Failed to obtain approval of the regulatory authority of a surface water monitoring program.	Program submitted 6/28/79 and approved 7/20/79. Notice terminated 9/12/79.
/10 & 1/79	O.S.M.	N.O.V.	20	D-6792	Failed to submit for approval by the regulatory authority a surface water monitoring program.	Surface water monitoring program had been submitted prior to inspection, but was overlooked. Notice vacated 8/15.

DATE	ENFORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. OR D.N.R. ID#	VIOLATION	FINAL RESOLUTION
10 & /79	O.S.M.	N.O.V.	20	D-6792	Constructed a permanent diversion that does not safely pass the peak runoff from a 100 year precipitation event.	The diversion was regraded. Notice terminated 9/7/79.
10 & /79	O.S.M.	N.O.V.	20	D-6792	Discharge or diverted surface and ground waters into underground workings.	Agency decided no violation existed. Notice vacated 7/13/79.
10 & /79	O.S.M.	N.O.V.	20	D-6792	Failed to establish a diverse effective and permanent vegetative cover.	Areas in question were re-seeded. Notice terminated 9/7/79.
/10 & /79	O.S.M.	N.O.V.	20	D-6792	Failed to pass all surface drainage from the disturbed areas through a sedimentation pond.	Sedimentation ponds were constructed. Notice terminated 9/7/79.
/10 & 1/79	O.S.M.	N.O.V.	20	D-6792	Failed to routinely maintain access and haulroads.	Roadways were regraded. Notice terminated 9/7/79.
/25 & /79	O.S.M.	N.O.V.	9	D-226	Material was placed on the downslope below the road cut, mine working or other benches.	Areas in question were seeded. Notice terminated 11/27/79.

DATE	E... ORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. OR D.N.R. ID#	VIOLATION	FINAL RESOLUTION
25 & /79	O.S.M.	N.O.V.	9	D-226	Failed to pass all surface drainage from the disturbed area through a sedimentation pond.	Sedimentation ponds were constructed. Notice terminated 10/24/79.
25 & /79	O.S.M.	N.O.V.	9	D-226	Failed to obtain approval of the regulatory authority of a program for monitoring ground water.	Ground water monitoring program was submitted. Notice terminated 9/7/79.
6/79	O.S.M.	N.O.V.	9	D-226	Placed material on the downslope below road cuts, mine workings or other benches.	Area in question was seeded. Notice terminated 9/21/79.
/6/79	O.S.M.	N.O.V.	9	D-226	Failed to routinely maintain the haulroad by means such as, but not limited to, wetting, scraping or surfacing.	Roadway was determined to be "infrequently used" and exempted from this regulation. Notice vacated 9/28/79.
/6/79	O.S.M.	N.O.V.	9	D-226	Failed to routinely maintain the haulroad by ditches, culverts, debris basins, and other structures.	Roadway was determined to be "infrequently used" and exempted from this regulation. Notice vacated 9/28/79.
1/28/79	O.S.M.	N.O.V.	14 (Refuse)	-	Failed to pass all surface drainage from the disturbed area through a sedimentation pond.	Sedimentation ponds were cleaned. Notice terminated 12/18/79.

DATE	E... ORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. OR D.N.R. ID#	VIOLATION	FINAL RESOLUTION
/5/79	O.S.M.	N.O.V.	4	D-6475-8	Failed to pass all surface drainage from the disturbed area through a sedimentation pond.	Sedimentation pond was designed and constructed. Notice terminated 1/29/80.
/5/79	O.S.M.	N.O.V.	Alpheus (Refuse)	-	Failed to establish on all lands disturbed by the mining operation a diverse, effective, and permanent vegetative cover.	Areas in question were seeded. Notice terminated 12/14/79.
/7/80	O.S.M.	N.O.V.	Pinnacle Prep. Plant	-	Discharged water from the disturbed area which fails to meet the minimum effluent limitations for total suspended solids.	Discharge was diverted through existing sedimentation ponds. Notice terminated 3/21/80.
/21/80	W.V.Dept. of Natural Resources - Reclamation Division	N.O.V.	Pinnacle Prep. Plant	-	Failed to impound or treat all water with suspended solids greater than 70 PPM, leaving the refuse area.	Flocculant was added to the discharge. No official termination notice.
/13/80	W.V.Dept. of Natural Resources Reclamation Div.	N.O.V.	Alpheus Prep. Plant	-	Failed to impound, drain or treat all surface water as to prevent pollution of streams and damage to agricultural lands.	Debris plugging the pollution collection system was removed. Notice terminated 8/20/80.
/26/80	O.S.M.	N.O.V.	Alpheus Prep. Plant	-	Failed to display a mine identification sign at all points of access to the permit area.	ID sign was erected 8/26. Notice terminated 8/28/80.

DATE	ENFORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. OR D.N.R. ID#	VIOLATION	FINAL RESOLUTION
26/80	O.S.M.	N.O.V.	Alpheus Prep. Plant	-	Failed to pass all surface water drainage from the disturbed area through a sedimentation pond.	Berm was repaired. Notice terminated 10/31/80.
26/80	O.S.M.	N.O.V.	2	D-225	Failed to pass all surface water drainage from the disturbed area through a sedimentation pond.	Sedimentation ponds and ditches were constructed. Notice terminated.
26/80	O.S.M.	N.O.V.	2	D-225	Failed to display a mine identification sign at all points of access to the permit area.	I.D. sign was erected. Notice terminated 8/28/80.
26/80	O.S.M.	N.O.V.	10	D-227	Failed to display a mine identification sign at all points of access to the permit area.	I.D. sign was erected. Notice terminated 8/28/80.
26/80	O.S.M.	N.O.V.	10	D-227	Failed to pass all surface water drainage from the disturbed area through a sedimentation pond.	Sumps were constructed. Notice terminated 11/25/80.
26/80	O.S.M.	N.O.V.	Alpheus (Refuse)	-	Failed to cover coal and acid forming, toxic forming, combustible, and other waste materials.	Area was designated as a stockpile area and a sediment sump constructed. Notice terminated 10/31/80.

DATE	ENFORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. OR D.N.R. ID#	VIOLATION	FINAL RESOLUTION
6/81	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	Alpheus Prep. Plant	-	Failed to treat discharge of oil so as to prevent stream pollution.	Sump was cleaned and new oil booms placed. Notice terminated 10/7/81.
28/81	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	Alpheus Prep. Plant	-	Discharge water in excess of effluent limitations.	Plugged screens on the collection tank were cleaned. Notice terminated 8/19/81.
29/81	W. Va. Dept. of Natural Resources Reclamation Div.	C.O.	4	D-6475-8	Failed to impound drain or treat all surface runoff water so as to prevent stream pollution.	Sediment pond was cleaned. Notice terminated 10/9/81.
29/81	W. Va. Dept. of Natural Resources Reclamation Div.	C.O.	4	D-6475-8	Failed to clean out sediment control structure when accumulation reached 60% of design.	Sediment pond was cleaned. Notice terminated 10/9/81.
22/81	W. Va. Dept. of Natural Resources Enforcement Div.	N.O.V.	Alpheus Prep. Plant	-	Unlawfully allowed sewage, industrial wastes or other wastes to flow into waters of the State.	A valve on the collection tank was inadvertently left open and was closed immediately. Agency does not issue termination notice.
0/8/81	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	10	D-227	Placed debris on the downslope.	Debris was removed and the area reclaimed. Notice terminated 2/11/82.
0/8/81	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	Alpheus Prep. Plant	-	Failed to clean out a sediment control structure when the accumulation reached 60% capacity.	Sediment pond was cleaned. Notice terminated 2/11/82.
3/82	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	Alpheus Prep. Plant	-	Failed to maintain minimum effluent limitations (suspended solids).	Blocked ditchline and culvert were opened. Notice terminated 2/11/82.

DATE	ENFORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. ID# D.N.R. ID#	VIOLATION	FINAL RESOLUTION
2/81	W. Va. Dept. of Natural Resources Enforcement Div.	N.O.V	Alpheus Prep. Plant	-	Stream Pollution (oil discharge)	Sump was constructed, oil booms positioned around the area, and the discharge pumped back to the plant. Agency does not issue termination notices.
7/81	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	14 (Refuse)	-	Failed to clean out sediment control structure when the accumulation reached 60% capacity.	Sediment pond was cleaned. Notice terminated 7/7/81.
7/81	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	9	D-226	Failed to clean out a sediment control structure when the accumulation reached 60% capacity.	Sediment pond was cleaned. Notice terminated 10/7/81.
7/81	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	Alpheus (Refuse)	-	Failed to properly construct terraces.	Plans were modified to reflect differences. Notice terminated 2/11/82.
7/81	W. Va. Dept. of Natural Resources Reclamation Div.	N.O.V.	Pinnacle (Refuse)	-	Discharged water with suspended solids greater than 70 mg/l.	Decant system was extended to give longer retention time. Notice terminated 6/17/81.
2/81	W. Va. Dept. of Natural Resources Reclamation Div.	C.O.	9	D-226	Engaged in surface mining operations without having first obtained a permit from the D.N.R.	Area was regraded and seeded. Notice terminated 10/7/81.
2/81	W. Va. Dept. of Natural Resources Reclamation Div.	C.O.	9	D-226	Created an iminent hazard to the environment by impounding hydraulic oil in a sediment pond.	Oil was pumped from the pond. Notice terminated 2/11/82.

DATE	ENFORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. ID# D.N.R. ID#	VIOLATION	FINAL RESOLUTION
7/82	W. Va. Dept. of Natural Resources Reclamation Div.	C.O.	4	D-6475-8	Failed to maintain minimum effluent standards (suspended solids).	Sediment pond was cleaned.
0/82	W. Va. Dept. of Natural Resources Enforcement Div.	N.O.V.	Pinnacle Prep. Plant	-	Caused pollution by discharging, depositing, releasing or permitting escape of industrial waste in such condition and quantity to discolor the stream.	No one with the company was notified - see violation dated 3/1/82.
1/82	W. Va. Dept. of Natural Resources Enforcement Div.	N.O.V.	Pinnacle Prep. Plant	-	Caused pollution by discharging, depositing, releasing or permitting escape of industrial waters in such condition and quantity to discolor the stream.	The decant system was extended to increase retention time. Agency does not issue termination notices.
5/82	W. Va. Dept. of Natural Resources Enforcement Div.	N.O.V.	50	D-6125	Failure to immediately notify the Division of water resources of a spill of oil.	No resolution required.
5/82	W. Va. Dept. of Natural Resources Enforcement Div.	N.O.V.	50	D-6125	Unlawfully and negligently allowed oil to enter state water.	Small sump was constructed with skimmer device and oil absorbing booms utilized. Agency does not issue termination notices.
5/82	W. Va. Dept. of Natural Resources Enforcement Div.	N.O.V.	Pinnacle Prep. Plant	-	Simple stream pollution.	Debris was removed from pollution collection pipe. Agency does not issue termination notices.

DATE	ENFORCEMENT AGENCY	TYPE ACTION	MINE NO.	D.O.M. # D.N.R. ID#	VIOLATION	FINAL RESOLUTION
6/82	W. Va. Dept. of Natural Resources Water Resources Div.	N.O.V.	Pinnacle Prep. Plant	-	Failed to operate and maintain waste treatment facilities as set forth in permit.	Collection ditch was regraded and ponds cleaned. Agency issues no termination notices.
14/82	W. Va. Dept. of Natural Resources Enforcement Div.	C.O.	9	D-10854	Discharged water from mining operation with a pH of less than 6.0 (4.5 pH).	Water discharge treated to obtain pH of 6 to 9 (6.5 pH).
27/81	W. Va. Dept. of Natural Resources Enforcement Div.	N.O.V.	50	D-6125	Failed to obtain a permanent permit for surface mining operation (surface affects of an underground mine).	Filed DR-14 permit with W. Va. Dept. of Natural Resources 4/7/83.

To: Glenn Sides, Chief Engineer
Western Coal District
P. O. Box 807
East Carbon, UT 84520

U.S. Steel Mining Co., Inc.
a Subsidiary of United States Steel Corporation

Interorganization Correspondence

Date: May 4, 1983

From: R. A. Stansbury
Chief Engineer
Lynch District

Subject: Permanent Program Permit Applications - Update of Lynch District Data

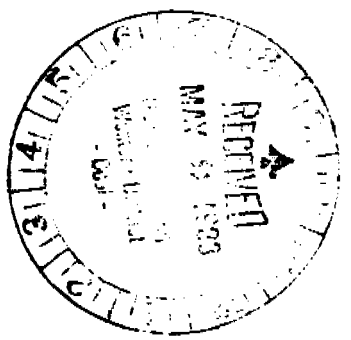
Attached please find updated information concerning permits and violations for Lynch District. Following is a list of pending permanent permits with the Kentucky Department for Surface Mining Reclamation and Enforcement:

848-5002
661-8000
648-5076

Upon their approval, current interim permits (prefixes 248 and 261) will no longer be valid.

Attachments

cc: L. King, Jr.
S. F. Bundy



MINE 33 (WINIFREDE) AREA SEWAGE PLANT PERMIT TYPE & NO. KY 0022331 NOTICE DATE 11-26-82

REGULATORY AUTHORITY U.S. EPA REGION IV

INSPECTOR'S NAME, TITLE & NO. WILLIAM J. TAYLOR, CHIEF WATER MANAGEMENT DIVISION

TYPE & NO. OF NOTICE VIOLATION

DESCRIPTION OF NOTICE	EXCEEDED EFFLUENT LIMITATIONS FOR FECAL COLIFORM IN MONTHS OF JULY & AUGUST 1982. LETTER RECEIVED FROM EPA BY LYNCH GENERAL SUPT. ON 12-8-82.
ACTIONS TAKEN TO ABATE	FOLLOW-UP EFFLUENT SAMPLES FROM 9-1-82 TO DATE OF LETTER SHOW PLANT IS IN COMPLIANCE WITH PERMIT. CHLORINATION SYSTEM WAS REPAIRED PROMPTLY AFTER DISCOVERY OF PART FAILURE. COPIES OF FOLLOW UP TEST RESULTS SENT TO EPA.
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	NO FURTHER CORRESPONDANCE RECEIVED FROM EPA CONCERNING THIS MATTER.

MINE 37 AREA GENERAL PERMIT TYPE & NO. AIR POLLUTION C-75-093 NOTICE DATE 7-9-82

REGULATORY AUTHORITY KY. NATURAL RESOURCES & ENV. PROT. CABINET DIV. OF AIR POLLUTION CONTROL

INSPECTOR'S NAME, TITLE & NO. MARK KING - INSPECTOR

TYPE & NO. OF NOTICE VIOLATION

DESCRIPTION OF NOTICE	CITED FOR OPERATION OF #37 MINE COAL HANDLING FACILITY WITHOUT A VALID OPERATING PERMIT. PERMIT C-75-093 WAS FOR CONSTRUCTION ONLY. LETTER RECEIVED FROM D.A.P. BY LYNCH ENVIRONMENTAL ENGINEER ON 7-20-82
ACTIONS TAKEN TO ABATE	PERMIT APPLICATION FOR OPERATING PERMIT WAS FILED ON 7-28-82
DATE TERMINATED OR VACATED	OPERATING PERMIT O-82-289 ISSUED ON 1-4-83
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

CASE No. 32 AREA T-16 Yard & Loadout TYPE & NO. Ky. ...-5023 DATE [illegible]

REGULATORY AUTHORITY U.S. Dept. Interior – OSM Region II TYPE & NO. OF NOTICE Violation 80-2-103-61

INSPECTOR'S NAME, TITLE & NO. Earl Bandy, Jr. – 103

DESCRIPTION OF NOTICE	Failure to pass all surface drainage from disturbed area through sediment structure and failure to meet suspended solids effluent limitations 717.17(a)
ACTIONS TAKEN TO ABATE	Install additional sediment control measures at T-16 loadout area. Pass all drainage from T-16 yard (in side) through sediment control structures (north side). TFA = 81-01-08 at 8am
DATE TERMINATED OR VACATED	80-12-12 Notice from inspector – NOV terminated – Remedial actions complete
DATE OF ASSESSMENT & POINTS OR FINE	OSM letter of 81-02-26: Proposed Assessment $1,300.00, 33 points " " " 81-05-14: No Assessment — 26 points
DATE, LOCATION & TYPE OF PROCEEDINGS	Request/Conference ... – 81-03-06 Approved 81-03-25 by OSM 81-04-28 Letter/OSM – scheduled conference – confirmed by ... 9am at OSM-Pineville office on 81-05-07 (L. King & ... attended)
FINAL ACTION & DATE	Per OSM letter of 81-05-14 (No assessment + 26 pts.) from ... (OSM Assessment Officer – Region II)
GENERAL COMMENTS/DATE	

over (cont.)

CASE Cos... AREA Check Dam #4 - Module 4 PERMIT TYPE & NO. MSHA Impoundment 1211-KY7-07012-08 NOTICE DATE: 80-12-12

REGULATORY AUTHORITY U.S. Dept. of Labor – Mine Safety & Health Admin. TYPE & NO OF NOTICE Citation (104-a)

INSPECTOR'S NAME, TITLE & NO. William C. Cannon (1403)

DESCRIPTION OF NOTICE	Construction of Check 4 for Module 4 has not been implemented in accordance with approved plan as the downstream slope of the check dam is being constructed on non-compacted slopes of approx. 34%. Condition is evident across most of length of the crest – about 1000' long and as much as approx. 60' in height. (During CCE inspection)
ACTIONS TAKEN TO ABATE	TFA = 80-01-25 at 10:00 am
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

over (cont.)

CASE 35 (Co. Wine) AREA Borehole Bypass PERMIT TYPE & NO. NPDES KY0022322 NOTICE DATE: 80/07/14

REGULATORY AUTHORITY EPA Region IV TYPE & NO. OF NOTICE Ref. Para. 10 Page 3/4

INSPECTOR'S NAME, TITLE & NO. T. Michael Taimi, Chief Coal Permits/Compliance Group

DESCRIPTION OF NOTICE	Sampling results of additional monitoring (temporary bypassed) to be reported quarterly w/regular DMR's.
ACTIONS TAKEN TO ABATE	Letter RLY to Taimi (EPA) dated 80/09/02 + additional monitoring results for bypass samples.
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

Typed (cont.)

CASE 35½ Corbine AREA Sewage Plant & Pond Overflow PERMIT TYPE & NO. KY0022322 and KY0022349 NOTICE DATE: 80-07-21

REGULATORY AUTHORITY U.S. EPA Region IV TYPE & NO. OF NOTICE Violation

INSPECTOR'S NAME, TITLE & NO. T. Michael Taimi, Chief Coal Permits/Compliance Group

DESCRIPTION OF NOTICE	Exceedence of effluent limitations (Page 2 of Permits) for period ending 80-03-31. (Letter from EPA recd. 80-07-28) by [illegible] Control)
ACTIONS TAKEN TO ABATE	
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

Typed (cont.)

NO. 32 AREA of Cove Branch TYPE & NO. (Ky) 248-5025 DATE 80-05-00

REGULATORY AUTHORITY U.S. OSM Region II

TYPE & NO. OF NOTICE Violation 80-2-103-22

INSPECTOR'S NAME, TITLE & NO. Earl Bandy, Jr., Inspector 103

DESCRIPTION OF NOTICE	Failure to pass all drainage from disturbed area through sediment pond or series of sediment ponds. 717.17(a)
ACTIONS TAKEN TO ABATE	Provide silt control for disturbed area so that all water meets effluent limitations. Water shall be impounded on fill portion of bench — shall not be directed over side areas. ~~TFA 80-07-28 8 Am~~
DATE TERMINATED ~~OR VACATED~~	80-07-10, Remedial measures are complete.
DATE OF ASSESSMENT & POINTS OR FINE	*OSM has violated Part 723.16(b) Conference request approved by letter (OSM) rec'd by RLA on 12-17. 41 points $2,100.00 Application/Review 80-12-03 ... Request/Conference RLA 12/02
DATE, LOCATION & TYPE OF PROCEEDINGS	81-01-21 at 12:30 p.m., OSM-Pineville, KY (204 W. Park Ave.) - Assessment Conference per OSM/RLA letter dated 80-12-29 and USSC confirmation/RLA dated 81-01-13
FINAL ACTION & DATE	To forego time & expense of litigation, USS paid $14.00 (revised amt. resultant of 81-01-21 mtg.) (Assessment = 34 pts.) Check sent OSM on 81-02-05 by RLAndes.
GENERAL COMMENTS/DATE	

(cont.)

NO. 37 AREA Both Face + Loop Mine Opening Coal Tile/Cove Branch PERMIT TYPE & NO. (Ky) 248-5026 Surface Disturbance NOTICE DATE: 80-05-25

REGULATORY AUTHORITY U.S. OSM Region II

TYPE & NO. OF NOTICE Violation 80-2-103-21

INSPECTOR'S NAME, TITLE & NO. Earl Bandy, Jr. Inspector 103

DESCRIPTION OF NOTICE	Failure to provide adequate silt control for disturbed area as designed in approved permit - Section 521(a)(3) of 30 CFR
ACTIONS TAKEN TO ABATE	Install temporary silt control & maintain until permanent control is established. TFA = 80-07-28 at 8 Am.
DATE TERMINATED ~~OR VACATED~~	80-07-10, Remedial measures completed.
DATE OF ASSESSMENT & POINTS OR FINE	*OSM has violated Part 723.16(b) 37 pts. $1,700.00 Conference request approved by letter (OSM) rec'd by RLA on 12-17. Application/Review 80-12-03 ... Request/Conference - RLA 12/02
DATE, LOCATION & TYPE OF PROCEEDINGS	81-01-21 at 12:30 P.M., OSM-Pineville, KY (204 W. Park Avenue) - Assessment Conference per OSM/RLA letter dated 80-12-29 and USSC confirmation/RLA dated 81-01-13
FINAL ACTION & DATE	Assessment reduced to < 30 pts and no penalty at 81-01-21 meeting
GENERAL COMMENTS/DATE	

(cont.)

MINE 32	AREA Bench-32 Ext.	PERMIT TYPE & NO. 248-5075	NOTICE DATE: 80-05-08

REGULATORY AUTHORITY Ky. B&MR&L

INSPECTOR'S NAME, TITLE & NO. Allen Middleton

TYPE & NO. OF NOTICE Noncompliance 2367

DESCRIPTION OF NOTICE	Coal removal from area permitted as existing access road — Operator has no permit for coal removal — possible spoil on downslope
ACTIONS TAKEN TO ABATE	DNREP letter of 80-07-18 ordered appearance at hearing.
DATE TERMINATED OR VACATED	80-08-06 @ recessed — "Had not occurred"
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	80-08-06, Frankfort office of B&MR&L (6th Floor-Capital Plaza Tower)-Informal hearing (RLA, JWB, LK)
FINAL ACTION & DATE	Dismissal Order (approved by Dept. Secretary Lovigatt 80-08-15) transmitted w/letter DNREP dated 80-08-19.
GENERAL COMMENTS/DATE	MFR (memorandum for record) from RLA dated 80-08-08 received 08-11 w/copyd - NOTE: Indication on last page that Secretary's decision on violation (P) should be received within 30 days.

MINE 33 (Minefeed) AREA D-23 Yard and Bth Slg. Loadout

PERMIT TYPE & NO. Surface Disturbance (Cy) 248-5073

NOTICE DATE: 80-05-28

REGULATORY AUTHORITY U.S. OSM Region II

INSPECTOR'S NAME, TITLE & NO. Earl Banks, Jr., Inspector 103

TYPE & NO. OF NOTICE Violation 80-I-103-10

DESCRIPTION OF NOTICE	Failure to comply with effluent standards set for suspended solids on water discharged from disturbed area 715.17(a)
ACTIONS TAKEN TO ABATE	Provide silt control D-23 Yard or remove drain pipe and seal permanently. At Bth Slg - clean out existing temporary silt control, provide additional temporary control and maintain properly until permanent silt control is installed. TEA = 80-06-27 at Bth
DATE TERMINATED OR VACATED	80-05-28, Remedial measures completed.
DATE OF ASSESSMENT & POINTS OR FINE	*OSM has violated Part 715.16(b). 31 pts. $1,100.00 Conference request approved by letter (OSM) received by RLA on 12-17. Application/Review 80-12-03/RLA Request Conference - RLA 80/12/03
DATE, LOCATION & TYPE OF PROCEEDINGS	81-01-21 at 12:30 P.M., OSM-Pineville, KY (204 N. Park Ave.)-Assessment Conference per OSM/RLA letter dated 80-12-29 and USSC confirmation/RLA dated 81-01-13
FINAL ACTION & DATE	Assessment reduced to < 30 pts. and no penalty at 81-01-21 meeting.
GENERAL COMMENTS/DATE	

MINE Corbin(__ AREA Runoff Pond-Northern fork Road-Railroad track-bottom PERMIT TYPE & NO. (Ky) 261-8020 NOTICE DATE: 80-01-11

REGULATORY AUTHORITY U.S. OSM (Ky) Region II TYPE & NO. OF NOTICE Violation 80-2-46-2 Page 1 of 2

INSPECTOR'S NAME, TITLE & NO. Vic Davis, III - Regional Inspector #46

DESCRIPTION OF NOTICE 772(b), 30 CFR	1) Failure to meet effluent limitations on discharges from below dr. end of bridge adjacent to plant & below plant runoff pond at NW portion/pen and runoff of road adjacent to RR tracks at bottom portion of permit. 2) Failure to pass all drainage from disturbed area through a sediment pond or series of sediment ponds [illegible]
ACTIONS TAKEN TO ABATE	1) Install temporary sediment control to eliminate any discharge in excess of established effluent limitations. TFA = 80-02-08 at 8 pm 2) Construct temporary sediment control which will bring discharge within effluent limitations. TFA = 80-02-08 at 8 pm
DATE TERMINATED OR VACATED	1) 80-01-21 (Remedial measures completed. Effluent within limits at time of inspection) 2) 80-01-21 (" " " " " " " ")
DATE OF ASSESSMENT & POINTS OR FINE	80-03-04 1) 32 pts., $1,200.00 (good faith 25 considered) 80-03-04 2) 32 pts., $1,200.00 (" " " ")
DATE, LOCATION & TYPE OF PROCEEDINGS	80-05-15, Office of Surface Mining - 204 N. Park Ave. - Roanoke, Va. at 2:30 pm. — Conference w/Assessment Conf. Officer, Ray Schwartz
FINAL ACTION & DATE	1) Good faith = 10 pts., TOTAL = 22 2) Good faith = 10 pts., TOTAL = 22 Penalty lowered on violation(s) to no assessment, NOV not vacated 80-06-06 (Ray Schwartz, Assess. Conf. Officer - OSM Region II)
GENERAL COMMENTS/DATE	

MINE 33 (Kingfork) AREA Surface Disposal Area at head of Hilary Fork of Kentucky Creek PERMIT TYPE & NO. Surface Disturbance (Ky.) 248-5073 NOTICE DATE: 79-11-07

REGULATORY AUTHORITY U.S. OSM Region II TYPE & NO. OF NOTICE Violation 79-2-46-21

INSPECTOR'S NAME, TITLE & NO. Vic Davis, III, Inspector 46

DESCRIPTION OF NOTICE	Failure to have plans approved by State reg. auth. for disposal of spoil rock and earth materials from underground workings in surface areas 717.15 of 30CFR
ACTIONS TAKEN TO ABATE	Submit plans for surface disposal area to State for approval. TFA = 79-12-06 at 8 am. Application/Review 79-12-05, reasonable Abatement time extended to 79-12-20 by Inspctr (79-12-06) - Plans submitted 11-7
DATE TERMINATED OR VACATED	79-12-20, Remedial measures completed.
DATE OF ASSESSMENT & POINTS OR FINE	79-11-27 ; no penalty assessed, 23 pts.
DATE, LOCATION & TYPE OF PROCEEDINGS	80-03-12, Holiday Inn Conference Room, Cumberland Gap, Tennessee at 10 am Hearing - Affirmed
FINAL ACTION & DATE	Good Faith = 10 pts. 23 pts., no penalty per 03/12 mtg
GENERAL COMMENTS/DATE	

Signed (cont.)

E 35 (so. Fire.) AREA General PERMIT TYPE & NO. KY0022382 DATE: 79/11/05

GULATORY AUTHORITY EPA Region IV

SPECTOR'S NAME, TITLE & NO. T. Michael Taimi - Permits Section Water Enforcement Branch

TYPE & NO. OF NOTICE Violation - Cond. 6

ESCRIPTION OF NOTICE	Discharge Monitoring Reports for April-May-June period not received by their office.
CTIONS TAKEN TO ABATE	Letter Rcvd to Taimi (EPA) dated 79/4/20 transmitting additional copies and 4th/5th submitted 79/6/13 reporting April-June quarter - request for withdrawal of NOV.
ATE TERMINATED OR VACATED	
ATE OF ASSESSMENT & OINTS OR FINE	
ATE, LOCATION & TYPE OF ROCEEDINGS	
INAL ACTION & DATE	
ENERAL COMMENTS/DATE	

Typed (cont.)

E 32 AREA Head of Maggard Branch PERMIT TYPE & NO. Surface Disturbance (Ky.) 288-5075 NOTICE DATE: 79-11-07

GULATORY AUTHORITY U.S. OSM Region III

SPECTOR'S NAME, TITLE & NO. Vic Davis, III, Inspector #6

TYPE & NO. OF NOTICE Violation 79-2-46-20

ESCRIPTION OF NOTICE	Failure to have plans approved by State reg. auth. for disposal of waste rock & earth materials from underground workings in surface areas.
CTIONS TAKEN TO ABATE	Submit plans to State reg. auth. for approval - permit. TFA = 79-12-06 — Modified by Inspector #6 on 79-12-06 to Standard TFA = 79-12-20 Application/Review 79-12-04 rec.
ATE TERMINATED ~~OR VACATED~~	79-12-20, Remedial measures completed.
ATE OF ASSESSMENT & OINTS OR FINE	79-11-27, No penalty assessed, 23 points
ATE, LOCATION & TYPE OF ROCEEDINGS	80-03-12, Holiday Inn Conference Room, Cumberland Gap, Tennessee at 10 hrs. Hearing, Review.
ACTION & DATE	
ENERAL COMMENTS/DATE	

Typed (cont.)

TYPE 33 (Winifrede) AREA All Portals & Facilities TYPE & NO. (Ky.)248-5075 DATE: 11-02-79

REGULATORY AUTHORITY U.S. OSM Region II

TYPE & NO. OF NOTICE Violation 79-2-64-12

INSPECTOR'S NAME, TITLE & NO. Glenn N. Bartley, Inspector 64

DESCRIPTION OF NOTICE	Failure to pass all surface drainage through sediment pond or series of sediment ponds. 717.17(a) of 30CFR
ACTIONS TAKEN TO ABATE	Construct temporary control until permanent control established. TFA = 79-8-05 at 9 hrs — Modified on 79-11-07, abatement time extended to 79-8-09 at 8 hrs
DATE TERMINATED ~~OR VACATED~~	79-11-20; Remedial measures completed (illegible)
DATE OF ASSESSMENT & POINTS OR FINE	79-10-05, No penalty, 26 points - good faith not considered
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

Typed (cont.)

TYPE 32 AREA All Portals & Facilities PERMIT TYPE & NO. Surface Disturbance (Ky.)248-5075 NOTICE DATE: 79-9-05

REGULATORY AUTHORITY U.S. OSM Region II

TYPE & NO. OF NOTICE Violation 79-2-64-11

INSPECTOR'S NAME, TITLE & NO. Glenn N. Bartley, Jr. Inspector 64

DESCRIPTION OF NOTICE	Failure to pass surface drainage through sediment pond or series of sediment ponds. 717.17(a)
ACTIONS TAKEN TO ABATE	Construct temporary sediment control until permanent control established TFA: 79-11-05 at 9 hrs
DATE TERMINATED ~~OR VACATED~~	79-11-07, Remedial measures completed.
DATE OF ASSESSMENT & POINTS OR FINE	79-10-05, no penalty assessed, 26 pts.
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

Typed (cont.)

E 35 (So. Hiw.) AREA general PERMIT TYPE & NO. operating NOTICE DATE: 79/09/24

ECULATORY AUTHORITY Ky. Div. of Air Pollution Control TYPE & NO. OF NOTICE Violation

SPECTOR'S NAME, TITLE & NO. L. Jack Hurst, Supv.-Hazard Reg. Ofc.

ESCRIPTION OF NOTICE	KRS 224.033 + 225.330 and KAR 50:035 Section 1(3) essentially — no permit to operate (or none is currently in effect)
CTIONS TAKEN TO ABATE	Letter from RLH (79/10/24) — followed by site visitation/conference at [illegible] request — submitted application on 79/11/07, additional info (at req. of [illegible]) submitted 79-12-13. Permit to operate rec'd, dated [illegible] local 80/03/18 Permit No. O-80-23, File No. 14-[illegible]-0095 [illegible]
ATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
ENERAL COMMENTS/DATE	

Typed (cont.)

E Corbin AREA general PERMIT TYPE & NO. NPDES KY0022349 NOTICE DATE: 79/11/05

ECULATORY AUTHORITY EPA Region IV TYPE & NO. OF NOTICE Violation — Condition 6

SPECTOR'S NAME, TITLE & NO. T. Michael Trimi, Permits Sect. Water Enforcement Branch

ESCRIPTION OF NOTICE	Discharge Monitoring Reports for April-May-June period not received by their office.
CTIONS TAKEN TO ABATE	Letter RLH to Trimi (EPA) dated 79/11/20 transmitting additional copies and Ky/Month submitted 79/07/13 reporting April-June quarter — request for withdrawal of NOV.
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

Typed (cont.)

CODE 33 (No. Mines) AREA All Forms & Facilities TYPE & NO. (Ky.) 248-3077 DATE 79-07-05

REGULATORY AUTHORITY U.S. OSM Region II

INSPECTOR'S NAME, TITLE & NO. Glen N. Hartley, Jr., Inspector 64

TYPE & NO. OF NOTICE Violation 80-2-64-13

DESCRIPTION OF NOTICE	Failure to pass all surface drainage through sediment pond or series of sediment ponds 717.17 (a)
ACTIONS TAKEN TO ABATE	Contract temporary sediment control until permanent sediment control is established. TFA = 79-8-05 at 9 hrs
DATE TERMINATED OR VACATED	79-11-07, Remedial measures completed.
DATE OF ASSESSMENT & POINTS OR FINE	79-10-25, no penalty assessed, 26 pts.
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

Typed (cont.)

CODE 33 (Winifrede) AREA general PERMIT TYPE & NO. Operating NOTICE DATE: 79/09/14

REGULATORY AUTHORITY Ky. Division Air Pollution Control

INSPECTOR'S NAME, TITLE & NO. L. Jack Hust, Supv-Hazard Regional Office

TYPE & NO. OF NOTICE Violation

DESCRIPTION OF NOTICE	KRS 224.330 and 225.330 ; KAR 50:035 Section 1 (3) essentially - no permit to operate (or none currently in effect)
ACTIONS TAKEN TO ABATE	Letter from KLH (79-09-24) explained that "Winifrede" and "North Winifrede" are same mines — "north Winifrede" improper reference.
DATE TERMINATED OR VACATED	Labeled (by DAPC, M. Veich) a "misunderstanding" "now cleared up - requested addl. info, submitted by us 79-11-17 Permit No. O-80-23 issued 80/03/12 covering operations here (+324-35)
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	

Typed (cont.)

TYPE Corbin AREA Upper Camp Creek PERMIT TYPE & NO. _____ NOTICE DATE: _____

REGULATORY AUTHORITY Ky. Division of Water Quality TYPE & NO. OF NOTICE Violation - Receiving Stream

INSPECTOR'S NAME, TITLE & NO. Earnie B. Hewitt, E.S. IV

DESCRIPTION OF NOTICE	Receiving stream clouded by discharge / by runoff " " black from reject haulers
ACTIONS TAKEN TO ABATE	Conference w/ Jt Kenions on 02-27 & -28 re. runoff problems
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	9-25-80 No additional correspondence from Ky. Division of Water on file.

Lynch (cont.)

TYPE Corbin AREA Receiving Stream Settling Basins PERMIT TYPE & NO. Operating NOTICE DATE: 79/03/06

REGULATORY AUTHORITY Ky. Division / Water Quality TYPE & NO. OF NOTICE Violation

INSPECTOR'S NAME, TITLE & NO. Earnie B. Hewitt, E.S. IV
Harlan Field Office

DESCRIPTION OF NOTICE	Working status of settling basins unsatisfactory-discharge to receiving stream black for about ½ miles - Black water escaping from emergency pond through old 8" pipe
ACTIONS TAKEN TO ABATE	Removal of culvert and packing of space with earth - correction completed within 2 to 3 hours.
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
ACTION & DATE	
GENERAL COMMENTS/DATE	9-25-80 No additional correspondence from Ky. Division of Water on file.

Lynch (cont.)

Bituminous Coal
Handling Facil.

AREA Abandoned #30 Mine

PERMIT TYPE & NO. Operating

NOTICE DATE: 79/05/24

REGULATORY AUTHORITY Ky. Division of Water

TYPE & NO. OF NOTICE ?

INSPECTOR'S NAME, TITLE & NO. James Rescher, E&S Tr. London Field Office

DESCRIPTION OF NOTICE	Black water coming from abandoned mines which City of Lynch uses for water supply. Source not known at time of visit - water usually runs clear. Receiving stream blackened w/coal fines for 1 to 2 miles below mine site.
ACTIONS TAKEN TO ABATE	Search disclosed surface water from nearby strip mine entering water from mines. Strip mine impound - spoiling water from its mine w/coal fines entering creek. Currently abandoned operation.
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	9-25-80 No additional correspondence from Ky. Division of Water on file.

Lynch (cont.)

OF 37

AREA Sizemore-Catoosa at Lynn Branch

PERMIT TYPE & NO.

NOTICE DATE: 79/06/14

REGULATORY AUTHORITY Ky. B&MR&E

TYPE & NO. OF NOTICE Noncompliance (NOV)

INSPECTOR'S NAME, TITLE & NO. Ed Gibbs

DESCRIPTION OF NOTICE	① Facing up non-permitted for underground mine ② No silt control - provide temporary control
ACTIONS TAKEN TO ABATE	
DATE TERMINATED OR VACATED	
DATE OF ASSESSMENT & POINTS OR FINE	
DATE, LOCATION & TYPE OF PROCEEDINGS	
FINAL ACTION & DATE	
GENERAL COMMENTS/DATE	9-25-80 No additional correspondence from B&MR&E on file.

Lynch (cont.)

To: Mr. G. H. Sides
District Chief Engineer
Western District

U.S. Steel Mining Co., Inc.
A Subsidiary of United States Steel Corporation

Interorganization Correspondence

Date: May 2, 1983

From: J. Y. O'Neal
District Chief Engineer
Southern District

Subject: Permanent Program Permit Applications

Attached is updated information regarding permits and violation history of Southern District as requested by Larry King.

RJL/ph
Attachment
cc: Mr. Larry King
Mr. O. W. Layman

PERMANENT PROGRAM PERMIT APPLICATIONS
SOUTHERN DISTRICT

Surface Coal Mining Permits - Alabama Surface Mining Commission

	Permit No.	Date Issued
Oak Grove Mine	P-3232-01-88-U	2-11-83
Concord Preparation Plant	P-3233-01-88-P	3-1-83

Violations

1. NOV No. 79-HVR-057, Alabama Surface Mining Reclamation Commission, 6-6-79

   Concord Mine

   A. Insufficient mine identification signs
   Action: I.D. signs were installed
   Date of Abatement: 9-1-79, no penalty assessed

   B. Water runoff from mine site not being diverted through a sediment basin before leaving area.
   Action: Sediment ponds were constructed
   Date of Abatement: 9-30-80, no penalty assessed

2. NOV No. 79-HVR-058, Alabama Surface Mining Reclamation Commission, 6-6-79

   Oak Grove Mine

   A. Insufficient mine identification signs
   Action: I.D. signs were installed
   Date of Abatement: 9-1-79, no penalty assessed

   B. Water runoff from coal stockpile not being diverted through a sediment basin before leaving area.
   Action: Sediment pond was constructed
   Date of Abatement: 5-5-80, no penalty assessed

3. NOV, Alabama Department of Environmental Management, 4-19-83

   Concord Preparation Plant

   A. Discharge of pollutants from a point source to an unnamed tributary of Lick Creek without a permit.
   Action: Remedial measures completed
   Date of Abatement: NOV abated per inspection on 4-29-83, no penalty assessed

U. S. Steel Corp.

Western District, East Carbon, Utah

Utah (Division of Oil, Gas, and Mining)

Current

Permit No.	Date
Act/007/013	May 11, 1978
Act/007/012	May 11, 1978

Colorado (Dept. of Natural Resources-Mined Land Reclamation Division)

Current

Permit No.	Date
78-31	1978

Western District - East Carbon, Utah

Geneva Mine

1. Date: May 11, 1979
   Regulatory Authority: Office of Surface Mining (NOV 79-V-5-3)
   Description: Failure to pass surface drainage from the disturbed area through sedimentation ponds.
   Action: U. S. Steel Corporation appealed the violation on March 24, 1980 and July 22, 1980. The decision upheld the violation but suspended the penalty.
   Status: Nine sedimentation ponds were constructed. No penalty assessed.

2. Date: May 11, 1979
   Regulatory Authority: Office of Surface Mining (NOV-79-V-5-3)
   Description: Crossing stream fords not approved by the regulatory authority.
   Action: U. S. Steel has filed a request with the State of Utah for a stream crossing permit.
   Status: On July 19, 1979, the State issued permission for U.S. Steel to use the channel crossing facilities. Violation terminated on October 1, 1979. No penalty assessed.

3. Date: December 12, 1979
   Regulatory Authority: Utah State Division of Health
   Description: Sampling of point spurce discharge U-0022926-003 indicated that the Fecal Coliform allowance of 400/100 ml was exceeded by 1900/100 ml. Investigation showed that low chlorine pressure was noted on December 11, 1979.
   Action: The chlorine cylinder was replaced on December 13, 1979 which corrected the condition.
   Status: No further action by regulatory agency.

4. Date: April 23, 1980
   Regulatory Authority: Utah State Division of Health
   Description: Sampling of point source discharge 002 indicated that the total suspended solids daily maximum allowance of 30 mg/l was exceeded by 6.5 mg/l.

4. Action: Previous samples of 002 indicate no pattern of high concentrations of suspended solids. There were no known changes in the dewatering system of Geneva Mine that would account for this out of compliance sample.

Status: No further action by regulatory agency.

5. Date: May 7, 1980
Regulatory Authority: Utah State Division of Health
Description: Sampling of point source discharge 003 indicated that the oil and grease maximum allowance of 10 mg/l was exceeded by 41.80 mg/l. The total suspended solids 7-day period allowance of 30 mg/l was exceeded by 6.0 mg/l.

Action: Previous samples of 003 indicate no pattern of high concentration of oil and grease or suspended solids. Investigation of the cause for this condition indicated no known reason that this should have occurred.

Status: No further action by regulatory agency.

6. Date: August 13, 1980
Regulatory Authority: Environmental Protection Agency
Description: Sampling of point source discharge 003 indicated that the oil and grease maximum allowance of 10 mg/l was exceeded by 2 mg/l.

Action: U.S. Steel conducted an investigation on Aug. 28, 1980 but was unable to identify a definite source of the material. The following steps are planned to attempt identification of the source and nature of the material reporting as oil and grease in the 003 point source discharge.

1. Samples will be taken and analyzed from sources ahead of the treatment facility.
2. Each time point source discharge is sampled for oil and grease a second parallel sample will be taken. This sample will be held until the results of the first sample are obtained.

Status: No further action by regulatory agency.

7. Date: October 8, 1980
Regulatory Authority: Utah State Division of Health
Description: Sampling of point source discharge 003 indicated that the 7-day period allowance for total Coliform of 2500 was exceeded by 2400. An investigation indicated that this condition was caused by a malfunction in the automatic chlorinator.

Action: The malfunction in the chlorinator has been corrected.

Status: No further action by regulatory agency.

8. Date: March 11, 1981
Regulatory Authority: Utah State Division of Health
Description: Sampling of point source discharge 003 indicated that the 7-day period allowance for Fecal coliform of 250 was exceeded by 1050. Investigation indicated that the chlorinator had run out of chlorine on Feb. 25th and the spare chlorine tank was unuseable. Discharge was subsequently treated with sodium hypochlorite, which is not as efficient a bacteriacide as chlorine gas.

Action: Another chlorine tank was obtained and installed March 11, 1981.

Status: No further action by regulatory agency.

9. Date: April 29, 1981
Regulatory Authority: State of Utah-Division of Oil, Gas and Mining (NOV No. N81-2-4-2)

Description: Failure to implement sediment control measures to prevent contributions of runoff and sediment to stream flow and to minimize erosion.

Action: Small area exemptions were requested for the areas cited and subsequently approved under the condition that stream water be monitored during a precipitation event where runoff occurs. Stream samples are analyzed and forwarded to the Division.

Status: Violation terminated on Sept. 4, 1981. Final assessment not yet determined.

10. Date: April 29, 1981
Regulatory Authority: State of Utah-Division of Oil, Gas and Mining (NOV No. N81-2-4-2)

Description: Failure to dispose of non-coal waste in a controlled manner.

10. **Action:** Waste material cited was removed and disposed of in the designated landfill area.

Status: Violation terminated on July 1, 1981. Final assessment not yet determined.

11. **Date:** July 15, 1981
Regulatory Authority: State of Utah-Division of Oil, Gas and Mining (NOV No. N81-2-6-2)
Description: Failure to comply with the terms and conditions of the mining permit: A company that was drilling in the mountains accessed by Horse Canyon installed two culverts within the mine permit area. The culverts were not included in the permanent plan because they were not installed by USSMC and did not benefit or serve any purpose to this company. It was assumed that the other company was acting under its own permit issued by the state/federal agencies and that USSMC would not be responsible for their actions.
Action: U.S. Steel Mining Co. appealed this violation on the grounds that the culverts were installed by a separate company acting under its own permit requirements.
Status: Both culverts were removed. Violation terminated on Sept. 21, 1981. Final assessment not determined.

12. **Date:** July 15, 1981
Regulatory Authority: State of Utah-Division of Oil, Gas and Mining (NOV No. N81-2-6-2)
Description: Failure to design stream drainage structures that will not affect normal stream flow or gradient, adversely affect fish migration and aquatic habitat, or related environmental values: Two culverts in Horse Canyon Creek were not appropriately designed.
Action: U.S. Steel Mining Co. appealed the violation on the grounds that the culverts were installed by a separate company acting under its own permit requirements.
Status: Both culverts were removed. Violation terminated on Sept. 21, 1981. Final assessment not yet determined.

13. **Date:** August 12, 1981
Regulatory Authority: Utah State Division of Health
Description: Sampling of point source discharge 003 indicated that the 7-day period allowance for total Coliform of 2500 was exceeded by 800. Investigation indicated that this condition was caused by a malfunction of the chlorination system and excessive vegetation growth in the retention pond.
Action: The malfunction of the chlorinator has been corrected and the retention pond cleaned.
Status: No further action by regulatory agency.

14. **Date:** September 21, 1981
Regulatory Authority: State of Utah-Division of Oil, Gas and Mining (NOV No. N81-1-8-3)
Description: Failure to protect topsoil from wind and water erosion and unnecessary compaction and contamination.
Action: The topsoil stockpile has been seeded and protected against erosion, compaction and contamination.
Status: When the topsoil pile is inspected by the Division the violation should be terminated.

15. **Date:** September 21, 1981
Regulatory Authority: State of Utah-Division of Oil, Gas and Mining (NOV No. N81-1-8-3)
Description: Failure to pass runoff through a sediment control structure.
Action: Runoff was diverted through an appropriate sediment control structure.
Status: Violation terminated on Oct. 14, 1981. Final assessment not yet determined.

16. **Date:** September 21, 1981
Regulatory Authority: State of Utah-Division of Oil, Gas and Mining (NOV No. N81-1-8-3)
Description: Failure to reclaim land disturbed by surface operations (State Health approved landfill).
Action: Plans were submitted to the Division for the use and reclamation of the landfill area.
Status: The time for abatement has been extended pending the review of plans by the Division.

17. Date: September 8, 1981
Regulatory Authority: Utah State Department of Health
Description: Sampling of point source 003 indicated that the allowance for total Coliform was exceeded. An investigation determined that chlorination problems probably accounted for the variance.
Action: The gas chlorinator was repaired.
Status: No further action by regulatory agency.

18. Date: November 17, 1981
Regulatory Authority: Utah State Department of Health
Description: The total and Fecal Coliform values were greater than the limits set in Geneva Mine's NPDES permit. An investigation determined that the sewer plant had run out of chlorine.
Action: The chlorine gas cylinder was replaced and new procedures instituted to prevent a recurrence.
Status: No further action by regulatory agency.

19. Date: January 25, 1982
Regulatory Authority: Utah State Department of Health
Description: The total and Fecal Coliform values exceeded the NPDES permit limits. No definite cause was determined.
Action: An additional water sample was taken.
Status: No further action by regulatory agency.

20. Date: March 23, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids at outfall 002 was exceeded by 16 mg/l.
Action: No action was taken.
Status: No further action by regulatory agency.

21. Date: April 27, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids at outfall 001 and 002 was exceeded by 132 mg/l and 272 mg/l respectively.
Action: No action was taken.
Status: No further action by regulatory agency.

22. Date: April 13, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids at outfall 001 was exceeded by 154 mg/l.
Action: No action was taken.
Status: No further action by regulatory agency.

23. Date: May 13, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids at outfall 001 was exceeded by 66 mg/l.
Action: No action was taken.
Status: No further action by regulatory agency.

24. Date: July 13, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for oil and grease and total Coliform at outfall 003 was exceeded by 3 mg/l and 10,500 respectively. No cause was determined.
Action: No action was taken.
Status: No further action by regulatory agency.

25. Date: August 11, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Coliform at outfall 003 was exceeded by 2,400. No cause was determined.
Action: The chlorination level was increased.
Status: No further action by regulatory agency.

26. Date: November 10, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids at outfall 002 was exceeded by 110 mg/l. No cause was determined.
Action: No action was taken.
Status: No further action by regulatory agency.

27. Date: November 24, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids at outfall 002 was exceeded by 50 mg/l. No cause was determined.
Action: No action was taken.
Status: No further action by regulatory agency.

28. Date: November 24, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids at outfall 002 was exceeded by 10 mg/l. No cause was determined.
Action: No action was taken.
Status: No further action by regulatory agency.

29. Date: December 22, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids for outfall 002 was exceeded by 10 mg/l. No cause was determined.
Action: No action was taken.
Status: No further action by regulatory agency.

30. Date: December 8, 1982
Regulatory Authority: Utah State Department of Health
Description: The NPDES permit limit for total Dissolved Solids at outfall 002 was exceeded by 5 mg/l. No cause was determined.
Action: No action was taken.
Status: No further action by regulatory agency.

31. Date: September 29, 1982
Regulatory Authority: Utah State Division of Oil, Gas and Mining (NOV N82-7-6-1)
Description: Failure to pass all surface drainage from the disturbed area through a sediment pond or treatment facility.
Action: Necessary berms were repaired.
Status: Violation terminated October 13, 1982. Fine of $320 assessed.

As of April 30, 1983

Somerset Mine

1. Date: June 19, 1979
Regulatory Authority: Office of Surface Mining (NOV 79-V-5-12)
Description: Failure to pass surface drainage from the disturbed area through sedimentation ponds.
Action: Berms were constructed around the disturbed areas and straw bales have been placed at all locations where water is leaving the disturbed area.
Status: Violation terminated October 1, 1979. Fine $2,100.

2. Date: June 19, 1979
Regulatory Authority: Office of Surface Mining (NOV 79-V-5-12)
Description: Failure to use adequate sediment control measures to prevent additional contributions of sediment to stream flow.
Action: Small area exemptions were applied for and received on February 20, 1980 for the Bear and Hubbard Creek Fan and Substation Area.
Status: No penalty assessed.

3. Date: June 19, 1979
Regulatory Authority: Office of Surface Mining (NOV 79-V-5-12)
Description: Failure to remove or segregate and stockpile topsoil.
Action: A topsoil stockpile has been established at the site of the storage pad to cover the area when the transformers are removed from the site.
Status: No penalty assessed.

4. Date: June 19, 1979
Regulatory Authority: Office of Surface Mining (NOV 79-V-5-12)
Description: Failure to pass surface drainage from the disturbed area through the sediment ponds.
Action: Straw bales were placed at the entrance to the culverts to prevent the emission of suspended solids and/or toxic materials from the yard and facilities area.
Status: Violation terminated October 1, 1979. Fined $1,300.

5. Date: April 6, 1981
Regulatory Authority: Colorado Department of Health
Description: Sampling point source discharge 001 indicated that the suspended solids daily maximum allowance of 30 mg/l was exceeded by 4.0 mg/l. Investigation of the cause for this condition indicated no known reason that this should have occurred.

5. Action: Previous samples of 001 indicate no pattern of high concentrations of suspended solids. There were no known changes in the dewatering system at Somerset Mine that would account for the out of compliance sample.
Status: No further action by regulatory agency.

6. Date: December 14, 1981
Regulatory Authority: Colorado Department of Health
Description: The CPDES permit limit for total suspended solids at outfall 001 was exceeded by 2 mg/l. No cause was determined.
Action: No action was taken.
Status: No further action by regulatory agency.

7. Date: April 20, 1982
Regulatory Authority: Colorado Department of Health
Description: The CPDES permit limit for total suspended solids at outfall 001 was exceeded by 1 mg/l. No cause was determined.
Action: No action was taken.
Status: No further action by regulatory agency.

As of April 30, 1983

Wellington Coal Cleaning Plant

No violations as of April 30, 1983.

Original Permit

APPENDIX A

LIST OF VIOLATIONS

Cumberland District, Waynesburg, Pennsylvania

1. Date: September 21, 1978
   Regulatory Authority: Pennsylvania Department of Environmental Resources
   Description: Notice of Violation issued to reapply for Thermal Dryer operating permit.
   Action: Permit application submitted to satisfy NOV requirements

2. Date: October 11, 1978
   Regulatory Authority: Pennsylvania Department of Environmental Resources
   Description: Notice of Violation for alleged black water discharge.
   Action: To avoid time and expense of litigation, settlement was reached with the DER to pay the sum of $250 to each of the following funds: Pennsylvania Clean Water Fund; Pennsylvania Fish Fund

3. Date: May 28, 1980
   Regulatory Authority: Office of Surface Mining
   Description: NOV for alleged noncompliance with the following Interim Surface Mining Control and Reclamation Performance Standards:

   a) 30 CFR 710.11(a) (2) diverted the flow of a perennial or intermittent stream.

   b) 30 CFR 717.17(a) inadequate sediment ponds or other structures.

   c) 30 CFR 717.17(c) inadequately maintained diversion ditch.

   d) 30 CFR 715.16(a) failure to remove or segregate topsoil prior to surface disturbance.

   Action: Remedial action was taken for item a) and the violation was abated.

   A sediment pond and diversion ditches were installed in prep plant area to partially abate violation b); however, cessation orders were issued on part of item b) and on item c). See details in part seven (7) below.

   Item d) was abated as it was being written.

4. Date: July 2, 1980
Regulatory Authority: Office of Surface Mining
Description: Notice of Violation for failure to post signs at plant entrance gates showing all I. D. numbers, as stated in 30 CFR 717. 12(b).
Action: Signs were posted to abate violation.

5. Date: July 9, 1980
Regulatory Authority: Pennsylvania Department of Environmental Resources
Description: Notice of Violation of the Clean Stream Laws of Pennsylvania as a result of May 8 and June 26,1980 inspections. Unpermitted discharge from Equalization Pond was entering Whiteley Creek by way of overflow weir at the pond. Other violations of the Clean Stream Laws were the same as OSM violations listed in item 3 b) above.
Action: Relative to the Equalization Pond discharge, the pond was dredged and no longer discharges over the weir.

6. Date: August 7, 1980
Regulatory Authority: Pennsylvania Department of Environmental Resources
Description: Notice of violations of the Clean Stream Laws of Pennsylvania for alleged discharging from emergency pond without a permit.
Action: In a meeting with PennDER it was indicated that a two-inch (2") line was being installed from the emergency pond to the raw water pond, and that unpermitted discharge had ceased.

7. Date: September 2, 1980
Regulatory Authority: Office of Surface Mining
Description: Cessation orders were issued ceasing operations at the raw coal stockpile, the refuse area transfer bin, and the refuse area eastern haul road because of failure to abate violations of May 28, 1980 (items 3 b) and 3 c) above).
Action: Remedial work was done to provide for total drainage control at the raw coal stockpile and refuse area bin and the cessation order covering these areas was lifted.
Status: Work is near completion on the eastern haul road and the cessation order covering that should be lifted shortly.

Frick District, Uniontown, Pennsylvania

Dilworth Mine

1. Date: June 11, 1978
   Regulatory Authority: Pennsylvania Fish Commission
   Description: Alleged spill of disinfectant fluid from Dilworth Mine into a creek resulting in loss of fish and acquatic life.
   Action: To avoid the time and expense of litigation, settlement was reached with the Fish Commission to pay the sum of $200.00 to the Pennsylvania Fish Fund.

2. Date: December 13, 1979
   Regulatory Authority: OSM
   Description: OSM inspection resulted in issuance of NOV No. 79-I-31-45. NOV for alleged noncompliance with the following Interim Surface Mining Control and Reclamation Performance Standards:

   (1) 30 CFR 717.17(a) - Failure to pass all surface drainage from the disturbed area through sediment ponds.

   (2) 30 CFR 717.17(a) - Failure to meet effluent limitations for TSS.

   Action: Remedial action taken with NOV terminated March 19, 1980.
   Status: Assessment conference held May 9, 1980, resulting in a revised assessment reduced to $2300.00. Assessment paid to avoid time and expense of litigation.

3. Date: March 19, 1980
   Regulatory Authority: OSM
   Description: OSM inspection resulted in issuance of NOV 80-1-31-6. NOV for alleged noncompliance with the following Interim Surface Mining Control and Reclamation Performance Standard:

   (1) 30 CFR 717.17(a) - Failure to install adequate sediment ponds or other structures to control runoff.

   Action: Remedial action taken with NOV terminated on May 22, 1980.
   Status: Assessment conference was held September 11, 1980, with the outcome pending as of September 30, 1980.

Robena Mine

1. Date: July 23, 1980
   Regulatory Authority: Pennsylvania Department of Environmental Resources
   Description: Letter received from DER notifying USSC that Robena Slope has an alleged unauthorized discharge. Same letter gave notice of an alleged unpermitted discharge at the Robena Mine rock disposal area at Colvin. Same letter gave notice of a non-complying discharge from the Robena Slurry Pond No. 4.
   Action: Frick District has submitted a response to these allegations but DER has not replied as of September 30, 1980.

Robena Preparation Plant and Refuse Area

1. Date: April 9, 1980
   Regulatory Authority: OSM
   Description: OSM inspection resulted in issuance of NOV 80-1-31-7. NOV for alleged noncompliance with the following Interim Surface Mining Control and Reclamation Performance Standard:

   (1) 30 CFR 717.17(a) - Failure to pass all runoff through a sediment pond.

   (2) 30 CFR 717.17(a) - Failure to meet numerical effluent limitations for TSS:

   Action: Remedial action taken with NOV terminated on June 10, 1980.
   Status: Assessment conference was held September 11, 1980, with the outcome of the conference pending as of September 30, 1980.

Frick District

1. Date: August 18, 1980
   Regulatory Authority: Pennsylvania Department of Environmental Resources
   Description: A letter was received from DER notifying USSC that we were in violation for operating an illegal solid waste disposal site. The site was an old mine site area where local residents were dumping trash.

Action:	Administrative action required the submission to EPA of a contingency plan which could be implemented during periods of noncompliance to minimize the severity, duration, and overall environmental impact of periods in which effluent limits are exceeded.
Status:	Action completed.

Southern District, Fairfield, Alabama

Concord Mine

1. Date: June 7, 1979
   Regulatory Authority: Alabama Surface Mining and Reclamation Commission (NOV 79-HVR-057)
   Description: NOV for noncompliance with the following Interim Surface Mining Control and Reclamation Performance Standards:

   (1) 30 CFR 717.17(a) - Failure to pass surface drainage from the mine site through a sediment pond.

   (2) 30 CFR 717.12(b) - Failure to display mine and permit identification signs at each point of access from public roads.

   Action: Remedial action by USSC to implement compliance program approved by regulatory authority, No other administrative or judicial action taken by regulatory authority.

Oak Grove Mine

1. Date: June 7, 1979
   Regulatory Authority: Alabama Surface Mining and Reclamation Commission (NOV 79-HVR-058)
   Description: NOV for noncompliance with the following Interim Surface Mining Control and Reclamation Performance Standards:

   (1) 30 CFR 717.17(a) - Failure to pass surface drainage from Emergency Coal storage area through a sediment pond.

   (2) 30 CFR 717.12(b) - Failure to display mine and permit identification signs at each point of access from public roads.

   Action: Remedial action taken with NOV terminated on 5-5-80. No other administrative or judicial action taken by regulatory authority.

NPDES Noncompliance Incidents

These exceedances have been included with this reporting list only because the EPA Region IV has established the policy of responding to Discharge Monitoring Report exceedances with a notice of noncompliance letter. Facts concerning the violations, corrective actions taken, and time compliance with effluent limitations are provided to Region IV prior to their NOV letter. Judicial action has not been taken by Region IV on the noncompliance notifications.

The following noncompliance incidents involving exceedances of NPDES permit effluent limitations were reported to EPA Region IV by USSC:

Date	Mine	Parameter
05-18-78	Concord	Fecal Coliform
06-19-78	Oak Grove	pH
06-19-78	Concord	pH
09-06-78	Concord	Fecal Coliform
10-10-78	Oak Grove	Fecal Coliform
05-08-79	Oak Grove	Fecal Coliform
09-19-79	Oak Grove	Fecal Coliform
11-27-79	Concord	Fecal Coliform
03-26-80	Oak Grove	TSS
07-09-80	Concord	TSS

Lynch District - Lynch, Kentucky

District Coal Handling Facilities

1.	Date:	May 24, 1979
	Regulatory Authority:	Kentucky Division of Water
	Description:	Black water coming from abandoned mine which City of Lynch uses for water supply. Source not known at time of visit. Water usually runs clear. Receiving stream blackened with coal fines for 1 or 2 miles below mine site.
	Action:	Search disclosed surface water from nearby belt line entering water from mine. Fire hose found sending water down into mine with coal fines entering creek. Corrected shortly thereafter.
	Status:	September 25, 1980 - no additional correspondence from Kentucky Division of Water on file.

No. 32, 33, 35, 37 Mines 7 South Main

1.	Date:	July 25, 1978
	Regulatory Authority:	EPA - Region IV - Violation
	Description:	Excessive fecal coliform effluent limitations at sewage plan -- in violation until compliance achieved.
	Action:	Letters to EPA and Ky DNREP dated 4-12-78.
	Status:	9-25-80 no additional correspondence from EPA on file.

Corbin Preparation Plant

1.	Date:	February 23, 1979
	Regulatory Authority:	Kentucky Division of Water Quality Violation - receiving stream.
	Description:	Receiving stream clouded by discharge/runoff. Receiving stream black from reject haulers.
	Action:	Conference with J. Kennison on 2-27 or 2-28 regarding runoff problems.
	Status:	9-25-80 - no additional correspondence from KDW on file.

Corbin Preparation Plant (Cont'd)

2.	Date:	March 6, 1979
	Regulatory Authority:	Kentucky Division of Water Quality - Violation
	Description:	Working status of settling basins unsatisfactory - discharge to receiving stream black for one and one-half miles - black water escaping from emergency pond through old 8-inch line.
	Action:	Removal of culvert and packing of space with earth-connection completed within 2 to 3 hours.
	Status:	9-25-80 - no additional correspondence from KDW on file.
3.	Date:	November 5, 1979
	Regulatory Authority:	EPA Region IV Violation - Condition 6
	Description:	Discharge monitoring reports for April-May-June not received by their office.
	Action:	Letter R. L. Andes to Taimi (EPA) dated 11-20-79 transmitting additional copies and letter of material submitted on 7-13-79 reporting the April, May and June quarter. Requested withdrawal of NOV.
	Status:	
4.	Date:	January 11, 1980
	Regulatory Authority:	OSM Region II - Violation 80-2-46-2 Parts 1 & 2
	Description:	(1) Failure to meet effluent limitations on discharges from below South end of bridge adjacent to plant and below plant runoff pond at No. portion/permit and runoff of road adjacent to RR tracks on Eastern portion of permit. (2) Failure to pass all drainage from disturbed area through a sediment pond or series of sediment ponds.
	Action:	(1) Install temporary sediment control to eliminate any discharge in excess of established effluent limitations. TFA = 02-08-80 @ 8:00 a.m. (2) Construct temporary sediment control which will bring discharge within effluent limitations. TFA = 02-08-80
	Status:	(1) Terminated 01-21-80 (2) Terminated 01-21-80

Corbin Plant (Cont'd)

5. Date: July 31, 1980
Regulatory Authority: EPA Region IV Violation
Description: Excessive effluent limitations for period ending 03-31-80.
Action:
Status:

No. 32 Mine

1. Date: September 5, 1979
Regulatory Authority: OSM Region II Violation 79-2-64-11
Description: Failure to pass surface drainage through sediment pond or series of sediment ponds. 717.17(a).
Action: Construct temporary sediment control until permanent control established. TFA = 05-11-79 @ 9:00 a.m. Remedial measures completed 07-11-79
Status: Terminated - no penalty assessed.

2. Date: November 7, 1979
Regulatory Authority U. S. OSM - Region II Violation 79-2-46-20
Description: Failure to have plans approved by state regulatory authority for disposal of excess rock and earth material from underground workings in surface areas.
Action: Submit plans to State regional authority for approval / permit.
TFA = 79-12-06 - Modified by Inspector on 79-12-06. Extended TFA = 79-12-20 Application/Review 79-12-04. Remedial measures completed 79-12-20.
Status: Hearing 3-12-80 - no penalty.

3. Date: May 8, 1980
Regulatory Authority: U. S. OSM - Region II Violation 80-2-103-22
Description: Failure to pass all drainage from disturbed area through sediment pond or series of sediment ponds.
Action: Provide silt control for disturbed area so that all water meets effluent limitations. Water shall be impounded on fill portions of bench - shall not be directed over side areas. TFA = 07-28-80
Status: 07-10-80, Remedial measures are complete.

No. 32 Mine (Cont'd)

4.	Date:	May 8, 1980
	Regulatory Authority:	Kentucky BSMRE - Noncompliance 2367
	Description:	Coal removal from area permitted as existing access road operator has no permit for coal removal - possible spoil on downslope.
	Action:	08-06-80 - Informal hearing (RLA, JWB, LK) 9:00 a.m. at Frankfort office of BSMRE.
	Status:	Dismissal order (approved by Dept. Secretary Swigart 08-15-80) transmitted w/letter DNREP dated 08-19-80.

33 Winifrede Mine

1.	Date:	09-05-79
	Regulatory Authority:	OSM Region II - Violation 79-2-64-12
	Description:	Failure to pass all surface drainage through sediment pond or series of sediment ponds 717.17(a) of 30 CFR
	Action:	Construct temporary control until permanent control established. TFA = 11-05-79 at 9:00 a.m. Modified on 11-07-79, abatement time extended on 11-09-79 at 8:00 a.m.
	Status:	11-20-79, Remedial measures completed.
2.	Date:	11-07-79
	Regulatory Authority:	OSM Region II - Violation 79-2-46-21
	Description:	Failure to have plans approved by state regulatory authority for disposal of excess rock and earth materials from underground workings in surface areas.
	Actions:	Submit plans for surface disposal area to state for approval. TFA = 12/06/79 at 8:00 a.m. Application/Review 12/05/79: T. R. Lloyd. Abatement time extended to 12/20/79 by Inspector (12/06/79) to complete submittal A/P
	Status:	12/20/79, Remedial measures completed.

33 Winifrede Mine (Cont'd)

3.	Date:	9-14-79
	Regulatory Authority:	Kentucky Division Air Pollution Control - Violation.
	Description:	KRS 224.330 and 225.330; KAR 50:035 Section 1(3) essentially - no permit to operate (or none currently in effect)
	Action:	Letters from RLA (09-24-79) explained that "Winifrede" and "North Winifrede" are same mine - "North Winifrede" improper reference.
	Status:	Labeled (by DAPC) by Mr. Welch, a "misunderstanding" "now cleared up" - requested additional information, submitted by us 11-17-79. Permit No. 0-80-23 issued 03-12-80 covering operations here (+32 & 35).
4.	Date:	05-28-80
	Regulatory Authority:	OSM Region II - Violation 80-2-103-20
	Description:	Failure to comply with effluent standards set for suspended solids on water discharged from disturbed area.
	Action:	Provide silt control D-23 yard or remove drain pipe and seal permanently. At D & E Hdg. - clean out existing temporary silt control. Provide additional temporary control and maintain properly until permanent silt control is installed. TFA 6/27/80 at 8:00 a.m.
	Status:	5/28/80 - Remedial measures completed

35 South Winifrede Mine

1.	Date:	02-15-78
	Regulatory Authority:	Environmental Protection Agency (EPA)
	Description:	Excessive TSS limitation at sewage plant - in violation until compliance achieved.
	Action:	Letter to RLA to Taimi (EPA) dated 5/2/78 noting compliance achieved - request withdrawal of NOV
2.	Date:	07-25-78
	Regulatory Authority:	EPA - Violation
	Description:	Excessive TSS limitation at sewage plant - in violation until compliance achieved.

35 South Winifrede Mine (Cont'd)

3.	Date:	09-05-79
	Regulatory Authority:	OSM - Region II - Violation 80-2-64-13
	Description:	Failure to pass all surface drainage through sediment pond or series of sediment ponds.
	Action:	Construct temporary sediment control until permanent sediment control is established. TFA = 11/5/79 at 9:00 a.m.
	Status:	11/7/79, Remedial measures completed.
4.	Date:	9-14-79
	Regulatory Authority:	Kentucky Division of Air Pollution Control
	Description:	KRS 224.033 & 225.330 of KAR 50:035 Section 1(3) essentially - no permit to operate (or none is currently in effect)
	Action:	Letter from RLA (9/24/79) - followed by site visitations/conference w/DAPC reps. - submittal application on 11/17/79, additional info. (at req. of DAPC) submitted 12/15/79. Permit to operate received, dated 3/12/80. Permit No. 0-80-23, File No. 101-1640-0095.
5.	Date:	11/05/79
	Regulatory Authority:	EPA Region IV - Violation Cond. 6.
	Description:	Discharge Monitoring Reports for April-May - June period not received by their office.
	Action:	Letters RLA to Taimi (EPA) dated 11/20/79 transmitting additional copies and letters submitted 7/13/79 reporting April-June quarter - request for withdrawal of NOV
6.	Date:	07/16/80
	Regulatory Authority:	EPA Region IV - Ref. Para. 10 pg. 3/14
	Description:	Sampling results of additional monitoring (temporary bypasses) to be reported quarterly with regular DMR's.
	Action:	Letter REY to Taimi (EPA) dated 9/20/80 and additional monitoring results for bypass samples.
7.	Date:	07/31/80
	Regulatory Authority:	EPA Region IV
	Description:	Excessive effluent limitations (Page 2 of Permits for period ending 3/31/80.) (letter from EPA received 7/28/80

37 Mine

1.	Date:	6/14/79
	Regulatory Authority:	Kentucky BSMRE - Noncompliance
	Description:	1. Facing up non-permitted for underground mine 2. No silt control - provide temporary control
	Status:	9/25/80 - no additional correspondence from BSMRE on file.
2.	Date:	5/25/80
	Regulatory Authority:	OSM Region II - Violation 80-2-103-21
	Description:	Failure to provide adequate silt control for disturbed area as designed in approved permit - Section 521(a)(3) of 30 CFR.
	Action:	Install temporary silt control and maintain until permanent control is established. TFA = 7/28/80 at 8:00 a.m.
	Status:	7/10/80 - remedial measures completed

7-South Main Mine

1.	Date:	7/25/78
	Regulatory Authority:	EPA - Region IV - Violation (Prev. qtr.)
	Description:	Excessive FC effluent limitations at sewage plant -- in violation until compliance achieved.
	Action:	Letters to EPA and Ky. DNREP from J. E. Young, Gen. Supt-Lynch District, dated April 12, 1978.
	Status:	9/25/80 - no additional correspondence for EPA on file.

Gary District -- Gary, West Virginia

No. 4 Mine

1. Date: 12-5-79
   Regulatory Authority: Office of Surface Mining (NOV 79-1-70-16)
   Description: The person has failed to pass all surface drainage and underground drainage removed from the mine through a sedimentation pond or series of sedimentation ponds prior to leaving the disturbed areas.
   Action: Pond design submitted to DNR for approval and a contractor was hired for cleaning and constructing ponds.
   Status: Violation terminated 1-29-80. No assessment.

2. Date: 11-17-78
   Regulatory Authority: West Virginia Department of Natural Resources
   Description: Failure to maintain waste water treatment facilities which resulted in black water polluting Harman Branch
   Action: Cleaned out pond to give additional detention time
   Status: Plea nolo contendere
   Fine $500 + $10 costs

No. 9 Mine

1. Date: 9-6-79
   Regulatory Authority: Office of Surface Mining (NOV 79-1-70-13)
   Description: 1. The person has placed material on the downslope below road cuts, mine workings or other benches. 2. The person has failed to routinely maintain the haulroad by means of wetting, scraping, or surfacing. 3. The person has failed to routinely maintain the haulroad by ditches, culverts, debris basins and other structures serving the drain the area.
   Action: Violation No. 2 vacated 9/21/79 - Not haulroad.
   Violation No. 3 vacated 9/21/79 - Not haulroad.
   Violation No. 1 terminated 9/21/79 - downslope material covered, stabilized and revegetated.
   Status: United States Steel assessed $2,000 for violation No. 1, no penalty for Violation No. 2, assessed $1800 for violation No. 3. United States Steel requested a conference to review proposed assessments (10/5/79). No date set for review.

No. 9 Mine (Cont'd)

2.	Date:	July 25-27, 1979
	Regulatory Authority:	Office of Surface Mining (NOV 79-1-26-28)
	Description:	1. Material has been placed on downslope below the road cut, mine working or other benches. 2. The person has failed to pass all surface drainage from the disturbed area through a sedimentation pond or series of sedimentation ponds prior to leaving the disturbed area. 3. The person has failed to obtain the approval of the regulatory authority of a program for monitoring ground water, subsurface flow, and storm characteristics, and the quality of ground water and has failed to perform such monitoring.
	Action:	Trash and black material on the outslopes were covered with earth, regraded and revegetated. Ponds were constructed and riprapped. Plans for surface and ground water monitoring plans were approved by DNR August 28, 1979.
	Status:	1. Notice abated 7-25-79 2. Notice abated 7-25-79 3. Notice terminated Violation No. 2 was assessed $1400. USS filed application for review 8-24-79. No date set for review.

No. 14 Mine

1.	Date:	November 28, 1979
	Regulatory Authority:	Office of Surface Mining (NOV 79-1-32-7)
	Description:	The person failed to pass all surface drainage from the disturbed area through a sediment pond of series of sediment ponds.
	Action:	Ponds at base of refuse area cleaned and revegetated
	Status:	$360 Find paid 8-4-80 - Requested hearing.

No. 20 Mine

1.	Date:	4-24-80
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Stream Pollution - Grapevine Branch off Beech Creek
	Status:	Plea nolo contendere Fined $100 + $10 cost

No. 20 Mine (Cont'd)

2. Date: 8-21-79
Regulatory Authority: Environmental Protection Agency (Administrative Order No. III-79-123-DW)
Description: "Failure to submit Discharge Monitoring Report for period 12-78 through 3-79" - No. 20 Mine & Prep. Plant.
Action: Proof submitted to EPA that we did, in fact, submit Discharge Monitoring Report as required by the NPDES permit.

3. Date: July 12, 1979
Regulatory Authority: Office of Surface Mining (NOV 79-1-49-2)
Description:
1. The person has failed to submit for approval by the regulatory authority a surface water monitoring program which meets the requirements of 30 CFR 717.17 (b)(1).
2. The person has constructed a permanent diversion that does not safely pass the peak runoff from a 100-year precipitation event.
3. The person has discharged or diverted surface and ground water into underground mine workings.
4. The person has failed to establish a diverse, effective and permanent vegetative cover capable of self-regeneration and adequate to control soil erosion.
5. The person has failed to pass all surface drainage from the disturbed area through a sedimentation pond or series of sedimentation ponds.
6. The person has failed to routinely maintain access haulroads by wetting, scraping or surfacing. Ditches have been allowed to become blocked or restricted in a manner that impedes drai nage.

Action:
1. Already had DNR Water Pollution Control Permit. Notice vacated 8-15-79
2. Already had MSHA Permit 1211WV40505 - Diversion Constructed - Notice terminated 9-7-79
3. Vacated because no violation exists - Vacated 7-13-79
4. Revegetated - Terminated 9-7-79
5. Passed all surface drainage through ponds Terminated 9-7-79
6. Roads ditched and maintained - Terminated 9-7-79

No. 20 Mine (Cont'd)

Status:

1. No penalty assessed
2. No penalty assessed
3. Vacated
4. No penalty assessed
5. Proposed assessment----$1900
6. Proposed assessment----$1600

Total proposed assessment $ 3500
Hearing requested by United States Steel

No. 50 Mine

1. Date: June 7, 1979
Regulatory Authority: Office of Surface Mining
Description: 1. Person has failed to pass all surface drainage from the disturbed area through a sedimentation pond or series of sedimentation ponds prior to leaving the permit area. 2. The person has failed to obtain approval of the regulatory authority of a surface water monitoring program which meets the requirements of Section 717.17(b)(1).
Action: 1. Ponds, sumps and berms were constructed to control runoff from disturbed areas and runoff passed through ponds as required. 2. A surface water monitor program was submitted to the DNR 6-28-79 and approved 7-20-79.
Status: 1. Violation terminated 9-18-79 -- Assessed $1500
2. Violation terminated 9-12-79 -- No assessment
United States Steel requested a conference to review the assessments 7-16-79. File Closed - Fine Paid - $1000.

Pinnacle Preparation Plant

1. Date: 7-6-80
Regulatory Authority: West Virginia Department of Natural Resources
Description: Black water entering Smith Branch -- found to be residual from prior spill and entering stream due to heavy rainfall.
Status: Fined $100 + $10 Cost. Plea nolo contendere

Pinnacle Preparation Plant (Cont'd)

2.	Date:	5-21-80
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Water pollution due to "failure to impound or treat all water with suspended solids greater than 70 ppm leaving the refuse disposal area."
	Status:	Plea nolo contendere - Fined $100 + $10 cost
3.	Date:	3-19-80 and 3-20-80
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Discolored material entering stream from refuse dump and access road due to heavy rainfall. Ponds installed and working at the time but apparently not sufficient to settle the suspended matter.
	Action:	Regrade and clean ditch line along access road, place rock on access road to help eliminate runoff, construct additional pond in emergency spillway and another pond downstream from refuse dump and add flocculent to water to decrease settling time for suspended matter.
	Status:	Plea nolo contendere - Fined $100 + $10 costs
4.	Date:	3-4-80
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Water pollution due to leak in decanting flume at refuse impoundment.
	Action:	Modified decant flume and installed new system.
	Status:	Fined $2,500.00
5.	Date:	2-7-80
	Regulatory Authority:	Office of Surface Mining
	Description:	Person has discharged water from the disturbed area which fails to meet the minimum numerical effluent limitations for total suspended solids.
	Action:	Area in question seeded to prevent future pollution problem.
	Status:	Notice abated 3-24-80; Violation terminated 7-21-80 -- No Assessment.
6.	Date:	July 11, 1979
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Pollution of Pinnacle Creek caused by broken coupling on pipeline.
	Action:	Broken coupling was immediately detected and replaced. DNR notified of accidental spill.
	Status	Paid fine $100 + $10 costs

Pinnacle Preparation Plant (Cont'd)

7.	Date:	4-6-79
	Regulatory Authority:	Office of Surface Mining (NOV 79-I-43-13)
	Description:	1. Person has failed to pass all surface drainage from the disturbed area through a sedimentation pond of series of sedimentation ponds. 2. Person has discharged water from the disturbed area (from the discharge pipe of the most downstream sedimentation pond located on the north side of Pinnacle Creek) which fails to meet the minimum numerical effluent limitations for total suspended solids.
	Action:	Corrective measures in regard to the maintenance and cleaning of the sedimentation pond have been employed.
	Status:	United States Steel requested a conference to review the assessments on 5-10-79. File closed - Fine paid - $700.
8.	Date:	February 27, 1979
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Pollution of Pinnacle Creek, in violation of terms of Water Pollution Control Permit No. 5220.
	Action:	Black water was controlled and diverted to pond 2-27-79.
	Status:	Plea nolo contendere - Paid fine of $2500 + $10 costs.
9.	Date:	January 17, 1979
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Pollution to Pinnacle Creek from surface runoff
	Action:	Corrected immediately by channeling runoff into settling pond.
	Status:	Plea of nolo contendere - Fine $100 + $10 costs.
10.	Date:	December 7, 1978
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Water pollution from stockpile area during heavy rainfall.
	Action:	Retention pond capacity increased.
	Status:	Plea of nolo contendere - Paid Fine $100 + Costs $10

Pinnacle Preparation Plant (Cont'd)

11.	Date:	November 15, 1978
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Water pollution - runoff from coal stockpile entered lagoon and at some time black water overflowed through the overflow pipe and left a black residue at the point of ground contact.
	Action:	To prevent recurrance a filtering material was placed in the overflow pipe.
	Status:	Plea nolo contendere - Fine $100 + $10 costs.
12.	Date:	April 26, 1978
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Water pollution - failure to report water pollution
	Action:	Incomplete file
	Status:	Plea nolo contendere - Fine $200 + $20 costs.
13.	Date:	January 6, 1978
	Regulatory Authority:	West Virginia Department of Natural Resources
	Description:	Pollution caused by the drippage from coal hauling trucks entering the roadway after being loaded at the stockpile in inclement weather.
	Action:	Plant personnel were in process of constructing berm when citation was issued.
	Status:	Plea nolo contendere - Fine $100 + $10 costs.

Alpheus Preparation Plant

1.	Date:	December 5, 1979
	Regulatory Authority:	Office of Surface Mining (NOV 79-1-70-17)
	Description:	The person has failed to establish on all lands disturbed by the mining operation a diverse, effective and permanent vegetative cover capable of self-regeneration and plant succession and adequate to control soil erosion.
	Action:	Areas around ponds, diversion repair, diversion ditch and roads re-seeded with hydroseeder using required seed, fertilizer and mulch December 12, 1979.
	Status :	Violation terminated 12-14-79 - No assessment.

Western District -- East Carbon, Utah

Geneva Mine

1. Date: May 11, 1979
   Regulatory Authority: Office of Surface Mining (NOV 79-V-5-3)
   Description: Failure to pass surface drainage from the disturbed area through sedimentation ponds.
   Action: United States Steel Corporation appealed the violation on March 24, 1980 and July 22, 1980. The decision upheld the violation but suspended the penalty.
   Status: Nine sedimentation ponds were constructed. No penalty assessed.

2. Date: May 11, 1979
   Regulatory Authority: Office of Surface Mining (NOV-79-V-5-3)
   Description: Crossing stream fords not approved by the regulatory authority.
   Action: United States Steel has filed a request with the State of Utah for a stream crossing permit.
   Status: On July 19, 1979, the state issued permission for United States Steel to use the channel crossing facilities. Violation terminated on October 1, 1979. No penalty assessed.

3. Date: December 12, 1979
   Regulatory Authority: Utah State Division of Health
   Description: Sampling of point source discharge U-0022926-003 indicated that the Fecal Coliform allowance of 400/100 ml was exceeded by 1900/100 ml. Investigation showed that low chlorine pressure was noted on December 11, 1979.
   Action: The chlorine cylinder was replaced on December 13, 1979 which corrected the condition.
   Status: No further action by regulatory agency.

4. Date: April 23, 1980
   Regulatory Authority: Utah State Division of Health
   Description: Sampling of point source discharge 002 indicated that the total suspended solids daily maximum allowance of 30 mg/l was exceeded by 6.5 mg/l.
   Action: Previous samples of 002 indicate no pattern of high concentrations of suspended solids. There were no

Geneva Mine (Cont'd)

4. Action: (Cont'd) known changes in the dewatering system of Geneva Mine that would account for this out of compliance sample.

   Status: No further action by regulatory agency.

5. Date: May 7, 1980

   Regulatory Authority: Utah State Division of Health

   Description: Sampling of point source discharge 003 indicated that the oil and grease maximum allowance of 10 mg/l was exceeded by 41.80 mg/l. The total suspended solids 7-day period allowance of 30 mg/l was exceeded by 6.0 mg/l.

   Action: Previous samples of 003 indicate no pattern of high concentration of oil and grease or suspended solids. Investigation of the cause for this condition indicated no known reason that this should have occurred.

   Status: No further action by regulatory agency.

6. Date: August 13, 1980

   Regulatory Authority: Environmental Protection Agency.

   Description: Sampling of point source discharge 003 indicated that the oil and grease maximum allowance of 10 mg/l was exceeded by 2 mg/l.

   Action: United States Steel conducted an investigation on August 28, 1980 but was unable to identify a definite source of the material. The following steps are planned to attempt identification of the source and nature of the material reporting as oil and grease in the 003 point source discharge.

   1. Samples will be taken and analyzed from sources ahead of the treatment facility.
   2. Each time point source discharge is sampled for oil and grease a second parallel sample will be taken. This sample will be held until the results of the first sample are obtained.

   Status: No further action by regulatory agency.

7. Date: October 8, 1980

   Regulatory Authority: Utah State Division of Health

   Description: Sampling of point source discharge 003 indicated that the 7-day period allowance for total coliform

Geneva Mine (Cont'd)

7.	Description: (Cont'd)	of 2500 was exceeded by 2400. An investigation indicated that this condition was caused by a malfunction in the automatic chlorinator.
	Action:	The malfunction in the chlorinator has been corrected.
	Status:	No further action by regulatory agency.

Western District -- East Carbon, Utah (Cont'd)

Somerset Mine

1.	Date:	June 19, 1979
	Regulatory Authority:	Office of Surface Mining (NOV 79-V-5-12)
	Description:	Failure to pass surface drainage from the disturbed area through sedimentation ponds.
	Action:	Berms were constructed around the disturbed areas and straw bales have been placed at all locations where water is leaving the disturbed area.
	Status:	Violation terminated October 1, 1979. Fine $2100
2.	Date:	June 19, 1979
	Regulatory Authority:	Office of Surface Mining (NOV 79-V-5-12)
	Description:	Failure to use adequate sediment control measures to prevent additional contributions of sediment to streamflow.
	Action:	Small area exemptions were applied for and received on February 20, 1980 for the Bear and Hubbard Creek Fan and Substation Area.
	Status:	Violation terminated October 1, 1979. No penalty assessed.
3.	Date:	June 19, 1979
	Regulatory Authority:	Office of Surface Mining (NOV 79-V-5-12)
	Description:	Failure to remove or segregate and stockpile topsoil.
	Action:	A topsoil stockpile has been established at the site of the storage pad to cover the area when the transformers are removed from the site.
	Status:	Violation terminated October 1, 1979. No penalty assessed.
4.	Date:	June 19, 1979
	Regulatory Authority:	Office of Surface Mining (NOV 79-V-5-12)
	Description:	Failure to pass surface drainage from the disturbed area through the sediment ponds.
	Action:	Straw bales were placed at the entrance to the culverts to prevent the emission of suspended solids and/or toxic materials from the yard and facilities area.
	Status:	Violation terminated October 1, 1979 Fined $1300

APPENDIX B

PERSONAL INJURY AND PROPERTY DAMAGE INSURANCE

TAX DIVISION

United States Steel Corporation

600 GRANT STREET
PITTSBURGH, PENNSYLVANIA 15230

February 3, 1981

Colorado Mine Land Reclamation Board
State of Colorado

Subject: Personal Injury and Property Damage Insurance

Paragraph 2.03.9(4) of the Regulations of Colorado Mine Land Reclamation Board for Coal Mining states: "The Division may accept from the applicant, in lieu of a certificate for public liability insurance policy, satisfactory evidence from the applicant that it has satisfied applicable State or Federal self-insurance requirements." After an extensive search of both Federal and State regulations, we have not found nor has our telephone inquiries with state regulators disclosed any specified criteria for self-insurance requirements as part of this regulatory program.

Since we currently self-insure these exposures (at primary layers) and desire to continue to self-insure, we are enclosing financial reports (1979 Annual Report, 1979 10-K and Third Quarter 1980 10-Q) as evidence of our financial capability to self-insure. You will note from Page 23 of U. S. Steel's 1979 Annual Report that it has assets in excess of $11 billion, net worth of almost $5 billion and current assets exceed current liabilities by over $1 billion. Such financial capability far exceeds that of most property and casualty insurance companies. In addition, you will note from Page 21 of our 1979 Annual Report under the caption "Insurance" that while U. S. Steel does not purchase third party liability coverage at the primary levels, it does carry a catastrophe casualty insurance policy. This policy provides coverage of up to $300 million per occurrence.

We feel that the subject financial reports do provide evidence required by Paragraph 2.03.9(4) of the Regulations. If you have any questions regarding this subject, they should be addressed to undersigned at Room 2137, 600 Grant Street, Pittsburgh, Pa. 15230 or by telephone at (412) 433-5151.

Very truly yours,

S. N. Heltsley

S. N. Heltsley
Chairman, Insurance Committee

Enclosures