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CO-OP MINING COMPANY

P.O. Box 1245
Huntington, Utah 84528

(801) 381-5238
Coal Sales (801) 381-5777

September 30, 1992

Pamela Grubaugh-Littig
Permit Supervisor
Utah Division of Oil, Gas & Mining
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Ms. Grubaugh-littig,

RE: Division Order 92A, BTCA Areas, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025, Emery County, Utah

#2

Enclosed is the proposal for Division Order 92A, BTCA areas. Pages 7K-1, 7K-2 and 7K-7 have been modified to address the concerns expressed in the two deficiency memos which we received. Pages 7K-3 thru 7K-6 have been renumbered to match the modified pages. The first vegetation monitoring will take place in the Spring of 1993 to determine the adequacy of existing vegetation. If you have any further questions or concerns involving this issue, please contact Charles Reynolds at the mine site.

Thank You,

Wendell Owen

Wendell Owen
Resident Agent

WJO
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Enclosure(s)

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CO-OP MINING COMPANY

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Copy Pam

September 29, 1992

Pamela Grubaugh-Littig
Permit Supervisor
Utah Division of Oil, Gas & Mining
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Ms. Grubaugh-littig,

RE: Division Order Item #8 and Technical Deficiency, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025, Emery County, Utah

#2

Enclosed is a response above-referenced deficiency letter prepared by Mangum Engineering Consultants. Also enclosed are the pages involved in the referenced issue. Only the pages addressed in the deficiency response have been modified. Please contact Charles Reynolds at 381-2450 if there are any questions or concerns regarding any of the referenced issues.

Thank You,

Wendell Owen

Wendell Owen
Resident Agent

WJO
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Enclosure(s)

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OIL GAS & MINING

MEC Mangum Engineering Consultants

388 East Boynton Road • Kaysville, Utah 84037 • (801) 544-3641

September 29, 1992

Wendell Owen
Co-Op Mining Company
P.O. Box 1245
Huntington, Utah 84528

Dear Wendell,

RE: Division Order Item #8 and Technical Deficiency, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025, Emery County, Utah

Attached is the response to the deficiency letter which you requested. Only the pages listed in the response have been modified. Each issue addressing the concerns of Henry Sauer have been discussed separately.

Thank You,

Charles Reynolds

Charles Reynolds
Environmental Coordinator

CR
Enclosure(s)

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TECHNICAL REVIEW

R645-301-233

Item 1: Organic Matter percentage was determined for Co-Op's soil samples using the Walkley and Black method. In the deficiency memo, the Division recommended the modified Mebius procedure. The deficiency memo also requested an analytical comparison between the two methods. Co-Op appreciates the recommendation to use the modified Mebius procedure and will consider this for future sampling. The R645 regulations do not, however, require a specific method for testing for Organic Matter. The Walkley and Black method is listed as an acceptable method in the ASA Monograph 9 (method 90-3) and the USDA Handbook 60 (method 24). In a comparison of methods performed by Nelson and Sommers (1975), using 10 soil samples, the average recovery of organic C using the Walkley and Black method was 102% of the values found by wet combustion. Nelson and Sommers (1975) also observed that the modified Mebius procedure produced an average of 103% of that found by wet combustion. The values obtained from Co-Op's samples are not unreasonably high. In addition, the Division's deficiency stated that the "..disturbed spoil is classified as acceptable (excluding coarse rock fragments)..", and Co-Op does not feel that additional testing on the samples pertaining to this discussion is required.

Item 2: The water retention was calculated using the following equation:

$$[(W_{1/3} - W_{15})(D_{b1/3})(\frac{\text{Vol soil}}{\text{Vol soil + Vol course}})] \div 100$$

When the analyzing laboratory (IML) calculated the water retention difference, a stability problem was encountered in the clods. As a result, 1/3 bar bulk density was used in the calculations in place of the air dry bulk density. In addition, because the calculations were computer generated, the results were rounded to one decimal place. This resulted in the rounding off of the results. Attached is a copy of the results calculated to two decimal places and the corresponding report values. I feel that the differences which result are insignificant and the reported results are acceptable.

Item 3: The sample for the depth increment of 2.6-4.0 ft. on soil sample pit #91LH was lost during collection of samples and preparation for shipment. No data is available on this depth increment for the above-mentioned pit.

Item 4: The location of soil sample pit #91PAR-1 is depicted on the currently approved Plate 8-5D in the MRP.

R645-301-233.100

pg. 8A-4

The disturbed soil is classified as acceptable in the Division's review. The use of other material in the permit area other than the currently proposed and approved material would result in additional impact and disturbance to the environment. The conclusions on page 8A-4 have been modified to reflect this. Co-Op has committed in the proposal to sample at the completion of reclamation activities. Since this material is the best available without additional environmental impact, this material meets the R645 requirements for topsoil substitutes.

R645-301-142.

Plates 3-2A and 3-2B, pg. 8-35

In the previous response by M.E.C., it was stated that "the acces road [to the Ball Park Topsoil Pile] will only be used in association with mining activites during reclamation". This is an erroneous statement. No coal mining or reclamation operations will be conducted on this road. Its post-mining use is for recreation. No reclamation or changes to this road have been proposed by Co-Op. Statements in regard to a request to remove the Ballpark Stockpile from the permit area have been removed. Any permit amendments regarding the Ball Park Topsoil pile will be formally submitted to the Division for review.

R645-301-242

pg. 8-41, 8-iii

Due to the confusion of the description of the sampling frequency on this page, the page has been modified to include the sampling frequency in Table 8.11-1. The frequency shown in the Table does not propose a less dense sampling pattern for larger reclamation areas.

R645-301-513.300

pg. 3-57, 3-58

Text has been modified on page 3-57 to clarify the placement of underground development waste. Also, a proposal has been added for measuring the volume of waste rock placed on the surface to determine when sampling is required.

Additional Issues

Pg. 3-32, 8-27

The only modifications to these pages involve punctuation (3-32, 3.4.5.3, line 3) and grammatical (8-27, last sentence) errors.

$$\left[(W_{1/3} - W_{15})(Db_{1/3})\left(\frac{\text{vol soil}}{\text{vol soil + vol coarse}}\right)\right] \div 100$$

$$= \frac{100 - cf\%}{100}$$

						Rounded	Rep
3347	(11.8 - 5.8)	(2.1)	$\frac{(51.8)}{100}$	0.07	=	.1	.1
3349	(11.1 - 5.5)	(2.0)	(21.9)	0.02	=	<.1	<.1
3354	(12.1 - 6.1)	(1.8)	(32.9)	0.04	=	<.1	<.1
3355	(11.3 - 5.6)	(1.9)	(36.7)	0.04	=	<.1	<.1
3360	(10.9 - 7.3)	(2.0)	(66.7)	0.05	=	.1	.1
3362	(10.9 - 7.0)	(2.0)	(58.0)	0.05	=	.1	.1
3369	(13.0 - 7.7)	(2.0)	(40.6)	0.04	=	<.1	<.1
3370	(11.8 - 7.3)	(2.1)	(39.7)	0.04	=	<.1	<.1
3373	(11.1 - 5.5)	(1.9)	(37.5)	0.04	=	<.1	<.1
3384	(10.6 - 4.9)	(1.9)	$\frac{(37.0)}{100}$	0.04	=	<.1	<.
13548	(12.2 - 5.4)	(1.8)	$\frac{(27.3)}{100}$	0.03	=	<.1	<.1
3549	(11.5 - 4.7)	(1.6)	(69.7)	0.08	=	.1	<.
3550	(13.7 - 6.3)	(1.7)	(73.0)	0.09	=	.1	<.
13551	(13.3 - 5.3)	(1.4)	(45.9)	0.05	=	.1	<.1
13557	(14.3 - 5.7)	(1.5)	$\frac{(27.7)}{100}$	0.04	=	<.1	<.1