

0044



**CASTLE
GATE**
COAL COMPANY

ACT 07/004

Mine File
S. Linnear

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JAN 16 1987

DIVISION OF
OIL, GAS & MINING

January 14, 1987

FILE COPY

Now about 10 yr 6 hr?

Mr. Lowell Braxton
Administrator
Division of Oil, Gas & Mining
Three Triad Center
Suite 350
Salt Lake City, Utah 84180-1203

Dear Mr. Braxton:

As you have probably already discovered, the as built ponds #7 and #8 constructed by Price River Coal Company in Hardscrabble Canyon are short of the required 10-year, 24-hour storm capacity.

The as built drawings which I sent to you last week showed that Ponds 7 and 8 in Hardscrabble Canyon have a combined deficit of 15,000 cubic feet of storage. I am not too concerned about the shortfall since in September of last year this area had a rainfall which exceeded a 10-year, 24-hour storm event. None of the ponds in this canyon filled to within 1/2 of capacity and therefore did not discharge. No discharge is due to the high infiltration rates of the soils in this canyon. However, if the Division of Oil, Gas and Mining is concerned about the capacity of this system, I propose the following modifications to Pond 007 and 008, pursuant to U.M.C. 817.49(i).

The deficit at Pond #7 is 13,000 cubic feet, modifying the existing 24" CMP spillway into a 24" CMP drop inlet structure (See Figure 7-3A, page 7-57 of M.R.P.) and raising the inlet elevation to 96.0 will eliminate the 13,000 cubic feet shortfall. Attachment 1; 007 Discharge Structure Calculation shows that the modification would pass 25 year/10 hour storm event with two (2) feet of freeboard without modification to the existing embankment.

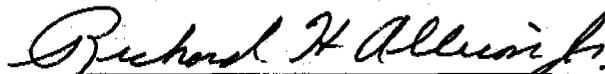
The deficit at pond 8 is 2200 cubic feet which is less than 10% of the theoretical required volume. If the Division deems that this is not close enough to plan, then Castle Gate will raise the inlet elevation by 3" in order to gain the required capacity.

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Sue: have the appropriate hydrologist review this letter, then let's discuss the required action. LBS 1-16

Castle Gate Coal Company will furnish the Division modified as constructed drawings when the work is completed.

Sincerely,



Richard H. Allison, Jr., P.E.
Project Supervisor

RHA:jcr

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Attachment #1

Pond 007 Discharge Structure

1. Determine required Q:

From page 3 - 139 of the M.R.P. 17 C.F.S. is the required Q for the drop inlet design.

2. Determine head at Crest elevation 96.0:

On page 7-59 Figure 7-3C a 24 inch drop inlet with .6' feet of head at the crest will pass the required 17 C.F.S.

3. Determine elevation of freeboard.

Elev of inlet	96.0
plus head of water	.6'
Elev of water during 25 year/24 hr. event	96.6
Freeboard required as per page 7-56 of MRP	2.0'
Required Top of Embankment Elev.	98.6

The top of the existing embankment is 99.0 (see Sediment Pond 007 as Constructed Drawing). Therefore, the existing embankment is adequate for the proposed modification to the spillway.