



State of Utah
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

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August 16, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor *DH*

THRU: Joe Helfrich, Permit Supervisor

FROM: Sharon Falvey, Senior Reclamation Specialist *SKF*

RE: NOV-99-26-2-1 Submittal, Lodestar Energy, Inc., Horizon Mine, ACT/007/020-AM99E, Folder #2, Carbon County, Utah

SYNOPSIS:

This submittal was provided to fulfill the abatement associated with NOV-99-26-2-1. The violation was terminated based upon receipt of the information on June 18, 1999. This information was submitted with Division Order 99B but was not reviewed because the package was not specific to the Division Order. The information was re-submitted and is reviewed herein. The information included in the tables was also compared with lab sheets, submitted previously.

The NOV remedial action required the following:

- 1) Submit a mine sequence underground map that clearly shows:
 - a) Water monitoring point locations for the 2nd and 3rd quarters 1998.
 - b) Other sources of mine water, roof, floor fissures and sumps.
 - c) Other mine water monitoring points, such as the wet test sampling in support of UPDES application for mine water discharge.
- 2) Surface Hydrology map showing location of surface mine water monitoring locations.

ANALYSES:

- 1) **Submit a mine sequence underground map that clearly shows:**
 - a) **Water monitoring point locations for the 2nd and 3rd quarters 1998.**
 - b) **Other sources of mine water, roof, floor fissures and sumps.**
 - c) **Other mine water monitoring points, such as the wet test sampling in support of UPDES application for mine water discharge.**

The following was provided in the amendment to meet the requirements of NOV-99-26-2-1. #1) Appendix 7-2, Attachment A, Plate B. Plate B shows sampling points (BBM) monitored

ACT/007/020-99E

August 16, 1999

Page 2

12-18-97, and (BBM) monitored 4-11-98. Sampling point (HM) 4-11-98, and the minewater discharge outfall point 002 associated with the UPDES discharge point are also shown. The map includes sumps, pipeline and mineworkings information.

Sources of minewater were not clearly presented nor, was the extent identified. However, point BBM sampled on April 11, 1998 was identified as issuing from the mine roof according to the lab sheet. The water source needs to be more specific and descriptive. Clarify whether water samples were obtained from the old workings, the floor, a sandchannel, or a fissure/fracture system. Identify the extent of these features potentially containing water.

One lab sheet identified the sample was collected at the White Oak Pond, discharge point 001, on February 25, 1999. It is not identified to be a Horizon minewater discharge point. A Laboratory sheet is labeled "Jewkes Creek Waste Water" and does not match a water monitoring point label on the map.

The "In-Mine Water Log" presented in Attachment A does not provide the Division with the raw data to verify the calculations and quantity presented in the Log. The actual field measurements should be made available to the Division. Based on the approved plan the applicant was required to record the period of pumping and the daily flow rate until a continuous flow meter was installed. Tables are provided, in Appendix 7-2, included in these tables is a "U" notation which is not described.

The data resulting from the W.E.T. test from a sample obtained on 4/19/98 showed no significant effect on growth or survival for the Flathead Minnow but, showed a significant effect on reproduction and survival of Ceriodaphnia. This result may require additional attention in the PHC and fish and wildlife sections in the plan when updated.

2) Surface Hydrology map showing location of surface mine water monitoring locations.

The surface map submitted to provided in the amendment to meet the requirements of NOV-99-26-2-1. #2 is in Appendix 7-2, attachment A, plate A and is reviewed only for the water monitoring information. This map also includes ditches etc. and is labeled Drainage Diversions. This map needs to be labeled specific to the monitoring locations, a better method would be to include the information on the water monitoring map already in the plan.

Text changes do not reflect information in the current plan and can not be directly inserted. The existing plan includes approved changes implemented effective April 10, 1998, on pages 7-32, and 7-76.

Findings:

This application does not meet regulatory requirements. The permittee must provide the following, in accordance with the requirements of:

R645-301-120. 1) The water sources in-mine needs to be specific and descriptive. Clarify whether water samples were obtained from the old workings, the floor, a sandchannel, or a fissure/fracture system. Identify the extent of these water bearing features. 2) One lab sheet, collected at the White Oak Pond, discharge point 001, on February 25, 1999, is not identified to be a Horizon minewater discharge point. The information needs to be removed from the submittal and the table or the information needs to be corrected. 3) All Laboratory sheet labels should match a water monitoring point label. The applicant needs to make it clear which monitoring point is associated with the Laboratory data sheet labeled "Jewkes Creek Waste Water". 4) Describing what the "U" denotes in tables located in Appendix 7-2. 5) Information in Appendix 7-2, attachment A, plate A is, reviewed only for the water monitoring information and needs an appropriate label, clearly differentiated from map 7-2 "Drainage Diversions" contained in the existing plan or, place the information on the water monitoring map (a preferred action). 6) Text needs to be submitted in a format that can be inserted into the plan: changes on pages 7-32, and 7-76 do not reflect information incorporated April 10, 1998.

R645-301-130. The "In-Mine Water Log" presented in Attachment A does not provide the Division with the raw data to verify the calculations and quantity presented in the Log. Legible copies from the actual field data sheets should be made available to the Division.

RECOMMENDATION:

Information needs to be submitted to make the submittal clear. It is recommended the applicant be given a short time period to comply to meet the objectives of the NOV.