MILE POST 7 WEST RIDGE RAILROAD RELOCATION, DAM EXTENSIONS, AND STREAM MITIGATION PROJECT ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW)

RECORD OF DECISION – FINDING OF FACT 28.u 1980 Monthly Operational Report

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MILE POST 7 WEST RIDGE RAILROAD RELOCATION, DAM EXTENSIONS, AND STREAM MITIGATION PROJECT EAW RECORD OF DECISION - FINDING OF FACT 28.u 1980 MONTHLY OPERATIONAL REPORT

RESERVE MINING COMPANY

SILVER BAY, MINNESOTA 55614

MATTHEW R. BANOVETZ EXECUTIVE VICE PRESIDENT December 23, 1980

Compliance & Enforcement Section Minnesota Pollution Control Agency 1935 West County Road B2 Roseville, Minnesota 55113



Gentlemen:

Monthly Operational Report Permit No. MNC 040509

This is Reserve Mining Company's fifth monthly operational report for the Mile Post 7 tailings basin. The report covers the month of November 1980.

I. Construction Monitoring

Dam and splitter dike construction and fine tailings deposition progressed in November as outlined below:

 $\underline{\text{Dam 1}}$ - Glacial till material was placed as a membrane in the dam section west of the railroad crossover until the onset of freezing weather early in the month.

<u>Dam 2-3-4</u> - Coarse tailings were placed in prepared upstream foundation areas. Coarse tailings were also placed along the upstream toe as a counterweight berm.

<u>Dam 5</u> - Select coarse tailings and coarse tailings zones were raised.

<u>Splitter Dike 1</u> - Was raised along its centerline to elevate the railroad track. Widening to the south side with coarse tailings was started from the east end.

<u>Splitter Dike 2</u> - Was widened to the north side with coarse tailings along the western end.

<u>Splitter Dike 3</u> - Was widened and raised with coarse tailings. Construction of the railroad spur embankment was started.

<u>Spigotting</u> - Fine tailings were spigotted along the north side of Splitter Dike 1.

Klohn Leonoff, dam consultants, had three staff members on site during November assisted by six Reserve Mining Company inspectors in the field and in the laboratory. One joint Reserve-Klohn engineering meeting was held during the month. Two Minnesota DNR representatives visited the site on the 24th for a monthly inspection.

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Construction Monitoring (Continued)

Quality control testing of dam fill materials and monitoring of dam instruments continued.

November was a predominantly cloudy month. Precipitation, both rain and snow, totalled 0.10 inches of water. The maximum recorded temperature was 49° F, the minimum was 2° F and the average of the daily maximums and minimums was 25.3° F.

II. Pipeline Flow Rate and Density

Tailings pipeline flowrate, November 7,054 GPM
Tailings slurry density, November 51.0% solids
Tailings pipeline total tailings, November 909,668 long tons

III. Coarse Tailings Particle Size Distribution

The 635,600 long tons of coarse tailings produced in November had a particle size distribution as follows:

+3/4 inch	3.90%
-3/4 to $+3/8$ inch	31.35%
-3/8 to $+4$ mesh	23.62%
-4 to +8 mesh	9.56%
-8 to +14 mesh	8.67%
-14 to +28 mesh	5.95%
-28 to +48 mesh	5.58%
-48 to +100 mesh	5.76%
-100 to +200 mesh	3.01%
-200 mesh	2.60%

IV. Coarse Tailings Wetting

Moisture content at the surface of the coarse tailings in place at the basin, as determined by 22 representative samples, averaged 3.54%. This is below the 4.00% required by Part I.E.3.c. of the permit but sufficiently moist to prevent visible or detectible dust emissions during loading, transportation and unloading operations as required by the same permit provision. We anticipate additional lower readings during the winter months when dry crude taconite feed is used in the plant. Coarse tailings will be sprayed with a mixture of water and chloride as needed to accomplish the necessary dust control during the winter months.

V. Submerged Fine Tailings

Fine tailings placed in the basin in November were deposited through spigot pipes and nearly all were covered by water.

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VI. Dust Control

November was relatively dry, as reported in more detail above. There was, however, ample water in the Little Thirtynine Creek bed reservoir and Recovery Pond 1A to meet the needs for dust control throughout the basin area.

VII. Vegetation Activities

There were no vegetation activities in the month of November.

VIII. Uncollected Seepage

As reported last month, this requirement is under study by Reserve and by Klohn Leonoff. We will communicate our thoughts and proposals on this matter shortly.

IX. Water Appropriation

All water used in compaction and dust control came from Recovery Pond 1A and the bed of Little Thirtynine Creek as reported above. No water was appropriated from the tailings basin.

Very truly yours,

M. R. Banovetz

Executive Vice President

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