0020

Document Information Form

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Person N/A

Company N/A

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Explanation:

INSPECTION Memo TO Coal File.

cc:

File in:
C/ 007 , 012 , Internal
Refer to:
- ☐ Confidential
- ☐ Shelf
- ☐ Expandable

Date _____ For additional information

May 4, 1984

Memo to Coal File:

RE: Wellington Preparation Plant
U. S. Steel Corporation
ACT/007/012, Folder No. 2
Carbon County, Utah

A technical inspection was conducted at the Wellington Preparation Plant site on March 26, 1984. Those in attendance from U. S. Steel were Barb Filas and Randy Wyatts. Mr. Patrick Collins of Mt. Nebo Scientific, consultant for U. S. Steel accompanied them.

Lynn Kunzler and Tom Portle represented the Division. The purpose of the meeting was to verify proposed test plot locations and methods and to ascertain any soil texture differences found in the proposed substitute soils borrow area.

The tour of the property concentrated on 3 areas. These will be addressed as follows:

1. The coarse refuse pile (west of the Price River and South of the plant) was viewed first. The concern in this area was the potential for soil loss into the voids associated with the coarse refuse. Proposal test plot locations were agreed upon for this portion of the operation.

RESOLUTION:

Much of the coarse refuse is a dark shale from U. S. Steel's Sommerset operation. This material appears very susceptible to weathering and is readily broken down during passes of 40 ton equipment used in the operation of the pile.

Fresh refuse is piled on top of existing broken down refuse. This material is very coarse and if not properly manipulated voids could be a factor.

The on-site discussion centered on grading to keep the coarse un-weathered material away from the surface and the crushing that would occur incident to equipment passes.

It is felt that this will be adequate contingent upon results of the aforementioned test plots in which course slurry placement between the soil and the coarse refuse will be a test condition.

2. The proposed borrow area (west of the Price River and east of the railroad) was walked extensively and sampled with a Hoffer type soil probe to a depth of one foot along a line from west to east beginning near sample site 8 (see map E9 - 3339) and continuing to the fence line, then randomly near the north end of the borrow location cumulating in more extensive sampling along the road back to sample site 8.

RESULT:

As one moved from the road (sample site 8) toward the river the clay content tended to decrease while silt increased (along with sand to a lesser extent). Because of this trend it was determined that the western boundaries of the borrow area should be moved at least 150 feet toward the river. This is borne out by comparing the clay content of samples 8 with 11wp (55% V. 38% clay).

The possibility of decreasing the depth of soil removal and increasing the aerial extent of the borrow was discussed. There appears to be no valid reason for doing this. In many cases the data indicate that the higher clay content is found near the surface.

3. The last area viewed was the proposed test plot location between the slurry ponds and the Price River. The location is situated on a relatively flat area and in close proximity to the highly saline fine slurry in the lower pond and the coarse slurry materials to be used as a buffer.

Implementation problems were discussed on site centering around the depth of slurry necessary to simulate conditions of the lower slurry (pond which cannot be used since it is still active). If the material was placed at an inadequate depth moisture relations may not be representative and could confound attempts to detect salt movement. Since wetting may not occur to the depth it would occur if more material were present saturation of the fine slurry could result in more water being available to move salt upward by capillary action in response to the vapor pressure gradient.

Likewise, it may be expected that water movement into this medium would be impeded by its fine texture and that this may be further compounded by the excessive sodium content (adverse impact on drainage due to particle deflocculation. It is not known if the proposed fine slurry depth (2 feet) will be adequate to simulate the conditions which will be encountered on reclamation.

Probably the most pragmatic way to deal with the problem would be to place a porous material on the test plot site before the placement of the two foot layer of fine slurry. This would provide adequate drainage while allowing for cost cutting since large volumes of fine slurry would not have to be transported to the test plot location.

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