

MEMORANDUM

November 4, 2004

TO: File

FROM: Sam Stone

RE: Horse Creek Stewardship Program
July Water Quality Results
Radium 226 + 228 Impact Assessment

The July 2004 water quality samples for the Horse Creek Stewardship Program were collected on 7/27/04 and results were received by mail on August 30, 2004. The review of those results showed that Station 2 (Horse Creek at Goose Pond Road) had a high level of total radium reported as 5.12 pCi/L which exceeds the trigger level of 5.0 pCi/L.

A review of the lab QAQC data shows that the duplicate samples were very good, and the recoveries were also within limits. A review of the blank sample QAQC data however shows that the blank sample recorded a level of 2.52 pCi/L for radium 228. I talked with Tina Fritz of Severn Trent Laboratory about the blank sample results. She stated the blank having a high level of radium 228 makes all other radium 228 sample results suspect and most likely high by the same amount found in the blank.

Based on these findings it was agreed to watch closely future results and not conduct an impact assessment for radium at this time.

xc: Pat Lehman
Sunny Diver
Ross Franklin
Ralph Montgomery



IMC Phosphates Company
P.O. Box 2000
Mulberry, Florida 33860-1100
863.428.2500

September 16, 2004

Regular Mail

Mr. Samuel S. Stone
Environmental Affairs Coordinator
Peace River Facility
8998 S.W. County Road 769
Arcadia, FL 31269

**RE: Horse Creek Stewardship Program
Goose Pond Road Radium Concentration – July 2004**

Dear Mr. Stone:

The Horse Creek Stewardship Program established a radium trigger level of 5 pCi/L for combined radium 226 and radium 228 concentrations. The July 2004 radium concentrations at Goose Pond Road were 0.286 pCi/L for radium 226 and 4.86 pCi/L for radium 228. These two values are together in excess of the trigger level concentration for radium. The other values for July 2004 at the other locations were below the radium trigger level (as have been all combined radium concentrations at all locations in every previous sampling event).

The uncertainty in radiological testing can be quite large. The July Goose Pond Road radium 226 concentration (0.286 pCi/L) had an uncertainty of 0.162 pCi/L and the radium 228 concentration (4.83 pCi/L) had an uncertainty of 1.17 pCi/L. The radium 226 and 228 values are actually represented by probability distributions where the center of the distribution is the reported value (4.83 pCi/L for radium 228) and there is a 95% certainty that the true radium value lies in an interval that is a calculated distance (1.17 pCi/L for the radium 228 analysis) on either side of the reported value.

As in other discussions of impact, all mining activities are "upstream" of State Road 64 and there is no apparent source of radium that would affect the water quality of Horse Creek in the interval between State Road 64 and Goose Pond Road.

The course of action we would prefer is to not perform a formal impact assessment for radium at Goose Pond Road at this time. We would rather wait and see if radium concentrations at Goose Pond Road show similar concentrations or if they return to below the trigger level in the August and September sampling events. If you have any other questions or need any further information, please contact me at (813) 634-3922, extension 3655 at your convenience.

Sincerely,





PEACE RIVER/MANASOTA REGIONAL WATER SUPPLY AUTHORITY
Serving the Citizens of Charlotte, DeSoto, Manatee & Sarasota Counties since 1982

HON. ADAM S. CUMMINGS
CHARLOTTE COUNTY

HON. TERRY L. WELLES
DESOTO COUNTY

HON. PATRICIA M. GLASS
MANATEE COUNTY

HON. SHANNON STAUB
SARASOTA COUNTY

PATRICK J. LEHMAN, P.E., EXECUTIVE DIRECTOR

September 22, 2004

Ross Franklin
IMC Phosphates
PO Box 2000
Mulberry, FL 33860-1100

RE: Horse Creek Stewardship Program
Potential Impact Assessments for July and August 2004

Dear Mr. Franklin:

The Authority has received written notification from IMC of water quality trigger levels being exceeded in July and August 2004. Specifically these events can be described as follows.

July, stations 2 and 3 had levels of Dissolved Oxygen below the trigger level of 5.0 mg/l.

July, station 2 had a total radium greater than the trigger level of 5.0 pCi/l.

August, station 2 and 3 had levels of chlorophyll above the trigger level of 15 mg/m³.

After considerable discussion and review of these events it has been decided that an impact assessment at this time with current high flows in Horse Creek would not prove beneficial. We therefore suggest that the impact assessments be deferred until the stream flows in Horse Creek are near normal for this time of year. Prior to implementing these assessments IMC and the Authority need to also review any subsequent water quality results collected for these parameters at these stations.

Should you have any questions concerning this matter please contact me.

Yours truly,

A handwritten signature in cursive script that reads "Samuel S. Stone".

Samuel S. Stone
Environmental Affairs Coordinator

xc: Sunny Diver
Ralph Montgomery
Pat Lehman



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