

Grauvogel & Associates

MEMORANDUM

DATE: 12/10/02

FROM: Larry Grauvogel

TO: Lance Turley/Hull Associates

SUBJECT: Oliver Plow Demolition - Lead Content

What constitutes acceptable soil to remain on-site for closure with respect to lead content is becoming a crucial time issue. We are reluctant to take any more samples of soils, especially in the foundry area, because right now anything with total lead content over 100 mg/Kg Bianchi will want to haul as hazardous waste. We have found some soils with lead in the 200 to 500 mg/Kg range. It would allow the project to proceed without delays if you would make a determination in the next week or so.

Our opinion is that the IDEM RISC value for direct contact at industrial sites of 1,300 mg/Kg should be used. Applying the default closure value of 230 mg/Kg will likely result in a lot of soil hauling and disposal, while the direct contact value will eliminate most if not all of the hauling. The direct contact scenario also seems reasonable enough for this industrial site to gain IDEM approval. The recent pipe tunnel debris sample reported 2,400 mg/Kg.

We are waiting for your decision.

Sincerely,

Grauvogel & Associates

Lawrence W. Grauvogel PE, CIH, CSP

cc: Andy Laurent/South Bend Redevelopment