



WALTER B. SATTERTHWAITE ASSOCIATES, INC.

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Walter B. Satterthwaite, P.G.
President
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Principal

DER-RECEIVED
NORRISTOWN

February 11, 1986

FEB 13 1986

Mr. Bruce Beitler
Pennsylvania Department of
Environmental Resources
1875 New Hope Street
Norristown, PA 19401

RE: ✓ Novak Sanitary Landfill - # 100534 ✓
South Whitehall Township - Lehigh County, PA.

Dear Bruce:

Chemical analysis of the quarterly groundwater samples collected at the Novak Sanitary Landfill are enclosed.

The samples were collected on January 8, 1986 and the samples collected from monitor well 1B were split with Mr. Jim Dolan of the Department's Bethlehem, PA office. The sample for iron analysis from each well was filtered in the field, therefore, the reported concentration is for dissolved iron.

Results from well 1B continue to show the effect of gas migration in the well as discussed below:

- o The alkalinity is affected by the carbon dioxide component of the gas which creates a slightly acidic condition in the well, thereby increasing the alkalinity.
- o The dissolved iron concentration is affected by the total dissolved solids content of the sample, and the natural mineralization in the vicinity of the well. The high iron content of the local Epler rock formation and occurrence of limonite (iron ore) deposits in the area is documented. Mildly acidic water in contact with these bodies can generate a high iron content groundwater. It is our opinion the water in well 1B derives its high iron content because of these conditions.
- o The chemical oxygen demand and specific conductance values increase then because of the measured ferrous iron concentration.

Water quality in the monitor wells are within known historical values, which indicates no significant changes in groundwater quality have been detected.

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Water quality at this facility will continue to be monitored in accordance with the Department's criteria. The next testing will be scheduled for May 1986 when the annual sampling program will be completed. The Department will be notified so that samples can be "split" for analysis by the Department's laboratory. If you have any questions or comments regarding the January 1986 data, please contact me.

Sincerely,

Rich Wroblewski

Richard T. Wroblewski
Project Geologist

RTW/slp

cc: Mr. Louis Novak, Sr.
Mr. J. Dolan, DER

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