

Summary of Main Concerns Arising from April 18, 1984 Meeting

1. It appears that the only leachate samples Gartner Lee have taken are from a manhole located in the collection system. It appears that there are no readings of leachate in the refuse itself. Therefore it appears the sample is taken from dilute leachate. In addition, they have only tested the manhole in April and November when there would be more surface runoff and a greater chance the leachate would be diluted. There appear to be no tests from May until August.

2. The issue of the advancement of the plume. It appears by looking at borehole 17 and other information that the plume has advanced to that point a few years ago and is probably on its way toward Lake Ontario. Evidence of this can be garnered by looking at the levels of contaminants in borehole 17 as compared to the upgradient boreholes. In addition, we have Dr. Cherry's research ^{from Bayview site} which uses different porosities than Gartner Lee. Cherry uses a porosity of .001 in the shale while Gartner Lee uses the porosity of .05, i.e. 50 times greater. Dr. Cherry also says that the plume from the Bayview site is travelling at approximately 130 metres per year. Gartner Lee says that the maximum travel velocity is 15 metres a year. As the landfill has been in existence since 1972, the leachate could have travelled 1,560 metres ^{from the landfill} off-site according to Cherry's figures.

3. Hydraulic conductivity is also in issue as it does not appear that Gartner Lee used leachate to test the permeability of the till. The velocity of the leachate moving through the till may therefore be in error. ^{affection dispers, on not porous}

4. ^{The presence} Off-site springs should be investigated on our clients' and other properties located between the site and Lake Ontario. We should also check for outcropping of bedrock ^{down gradient} of site. ^{Golf course surface runoff NE side ditch N Serv Rd}

- ⑤ Stream discharge is another issue. [10% of the leachate will not be collected in Phases B and D, a significant percentage of a large volume of leachate. There is also a question of what will happen to this leachate in the streams. 7 Children may play in it and become ill. The fecal coliform count is high already.] ^{add top volume discharges}

Spring. Fractured Rock.

Drilling should be done south of Highway 403 to determine if the leachate plume has advanced. However, even if no leachate is found, it just may mean that it is not at that point yet. Visual inspection should be carried out. It is important to note that there is a complex fracture system in the shale.