

US EPA ARCHIVE DOCUMENT

GAS COLLECTION FROM BIOREACTOR LANDFILLS

Eric Peterson, P.E.

SCS ENGINEERS

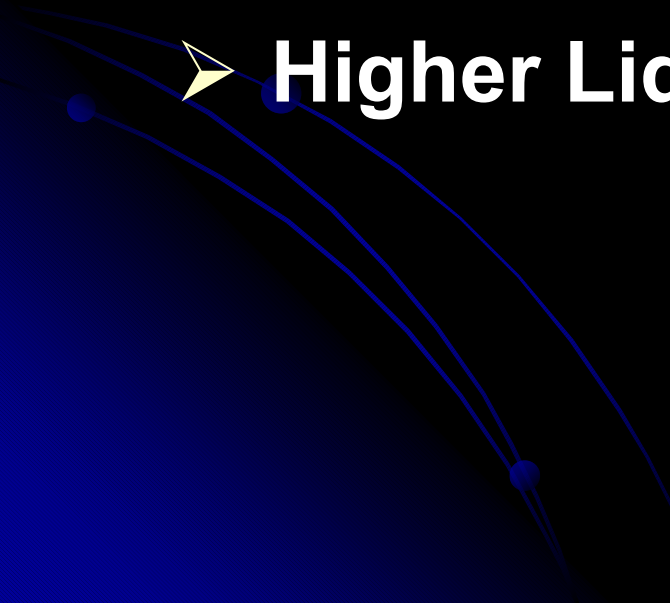
February 28, 2003



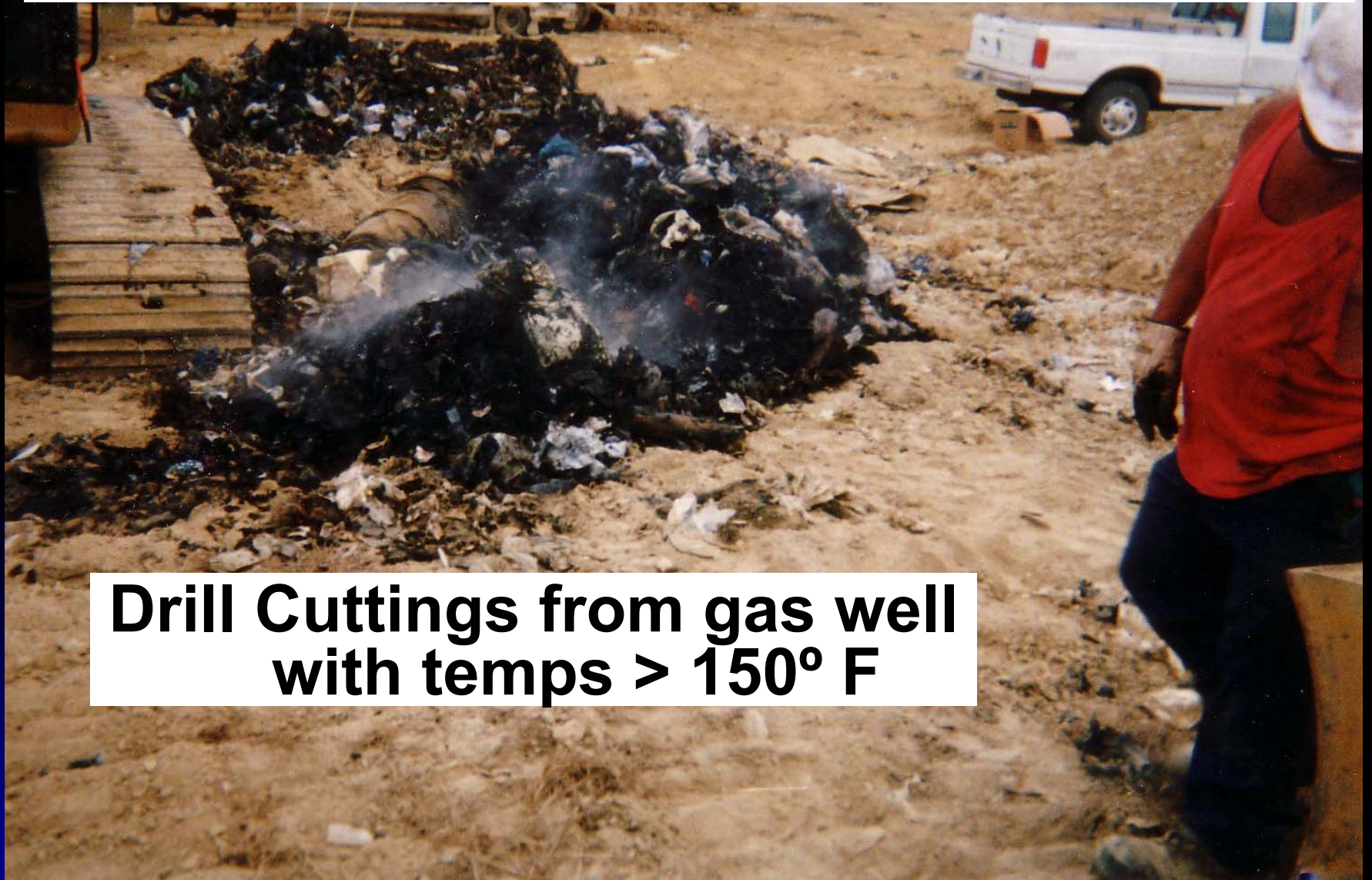
INTRODUCTION

- **Gas Collection Challenges**
- **Gas Collection Options**
- **Regulatory Issues**

GAS COLLECTION CHALLENGES

- **Higher Gas Temperatures**
 - **Higher Gas Production Rate (more gas more quickly)**
 - **Higher Liquid Levels**
- 

HIGHER TEMPERATURES



**Drill Cuttings from gas well
with temps > 150° F**

**LEACHATE
FILLED
EXTRACTION
TRENCH**





GAS PRESSURE



GAS COLLECTION OPTIONS

- **Vertical Wells**
 - **Horizontal Collectors**
 - **Interconnection with leachate system**
 - **Common Conduit - HYEX® System**
- 



DUAL CONDUIT

- **Common trench or piping for gas collection and liquids addition**
- **HYEX® System uses common carrier drain pipe for separate liquid injection and gas collection pipes.**
- **Demonstration at Ste. Sophie Landfill, Quebec and Fauquier County, VA**

**Interior of
HYEX
reinforced
landfill
conduit;
12 inch ID**

