



Mr. Jim Peters  
GripFlex, Inc.

April 2, 2007

## **Analytical Report – ENV20070102**

### **Request for Analysis**

One (1) Tar Slurry sample was submitted to Envantage, Inc. by GripFlex for the qualitative determination of off gases at specified temperatures. The temperatures requested were 50 deg F and 120 deg F. A request was made to attempt to identify and significant individual components present in the vapor phase over the sample.

### **Qualitative Analysis**

Gas Chromatography – Mass Spectrometry (GC/MS) was utilized to characterize the components in the vapor phase over the tar sample. The tar was placed into 40mL VOA vials and placed in a temperature-controlled bath. VOA vials have a Teflon-lined septa within the lid to facilitate sampling at-temperature. Each sample was equilibrated at the specified temperature for at least 1-hour prior to analysis. Figure 1 displays the qualitative profile of the sample. The vapor phase had a characteristic naphthalene (mothball) odor under both temperature scenarios, but was of a level that would be considered “non-detected” by the analyzer. The lack of observable compounds under these temperature scenarios may suggest that there is limited exposure to volatiles at similar operating conditions.

### **Quantitative Analysis**

None requested.

### **Conclusions**

The lack of observable compounds under these temperature scenarios may suggest that there is limited exposure to volatiles at similar operating conditions.

Reported and Reviewed By:

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David J. Balazs – Lab Manager



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**Qualitative Analysis**

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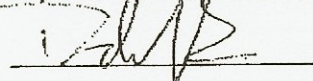
**Quantitative Analysis**

None requested.

**Conclusions**

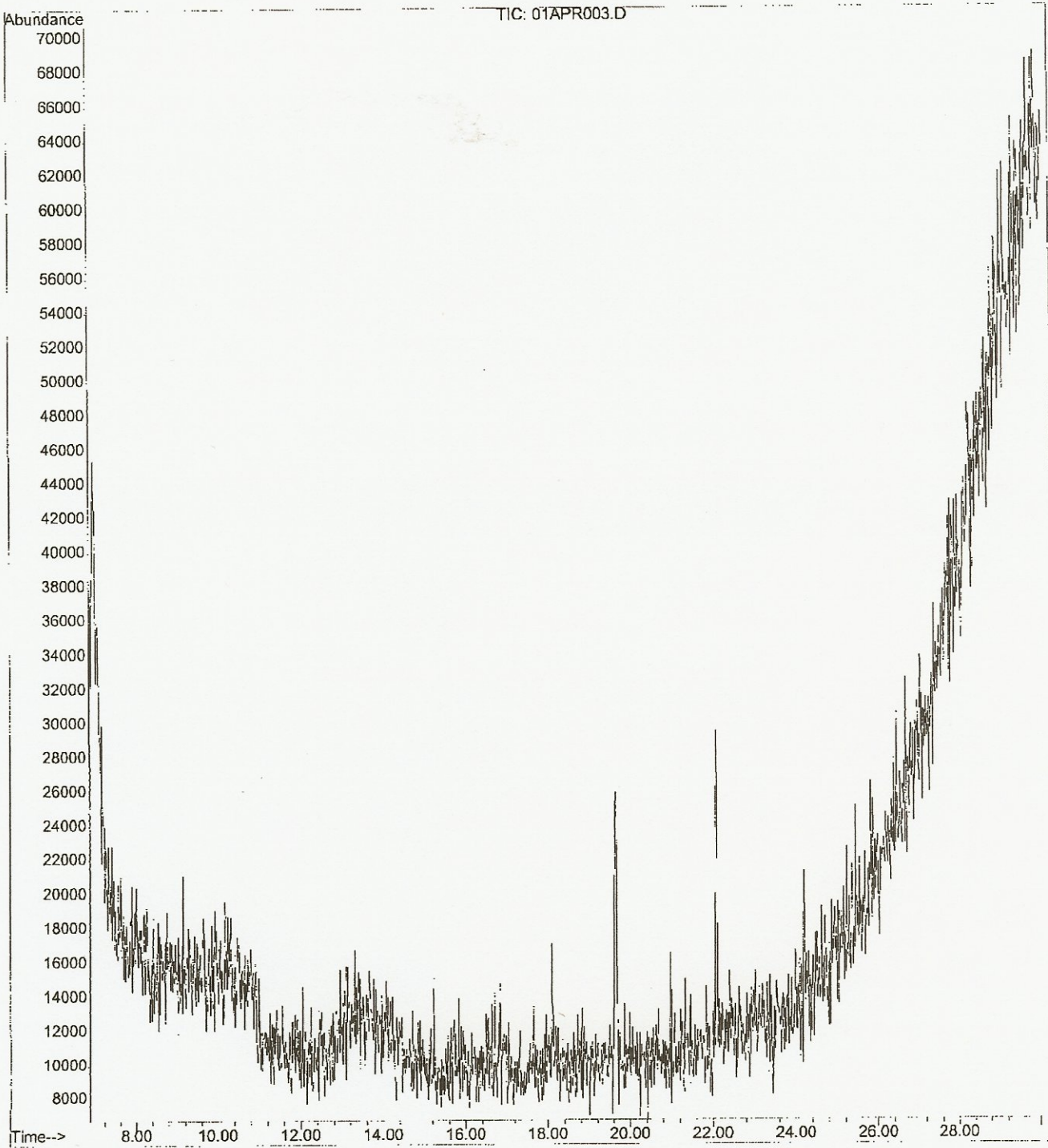
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Reported and Reviewed By:



David J. Balazs – Lab Manager

File : C:\HPCHEM\1\DATA\01APR003.D  
Operator : DJB  
Acquired : 2 Apr 2007 2:43 pm using AcqMethod SIMDGAS  
Instrument : GC/MS Ins  
Sample Name: lcc gas inject Road Tar at 120F  
Misc Info :  
Vial Number: 1



**Envantage, Inc.**

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Cleveland, OH 44128  
USA

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**confidential**  
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**Pages:** 3  
**Date/Time:** 4/5/2007 10:46:45 AM  
**Subject:**

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