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**Committee D16 on Aromatic Hydrocarbons and Related Chemicals
Subcommittee D16.04 on Instrumental Analysis**

Research Report: D16-1039

**Interlaboratory Study to Establish Precision Statements for ASTM
D7011-10, Determination of Trace Thiophene in Refined Benzene by
Gas Chromatography and Sulfur Selective Detection**

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1. Introduction:

Interlaboratory Study 228 was conducted to establish a precision statement for D7011, Determination of Trace Thiophene in Refined Benzene by Gas Chromatography and Sulfur Selective Detection.

2. Test Method:

The Test Method used for this ILS is D7011-10. To obtain a copy of D7011, go to ASTM's website, www.astm.org, or contact ASTM Customer Service by phone at **610-832-9585** (8:30 a.m. - 4:30 p.m. Eastern U.S. Standard Time, Monday through Friday) or by email at service@astm.org.

3. Participating Laboratories:

The following laboratories participated in this interlaboratory study

ConocoPhillips

Analytical Services -
Chromatography Team
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4. Description of Samples:

There were 7 samples of varying targeted concentrations used for this study. Each sample was prepared and distributed by Jeffrey Werner of DCG Partnership. Below is a list of the samples with the corresponding concentration:

Sample 1 (Blank) with a concentration of a blank

Sample 2 with a concentration of 0.03 mg thiophene/kg benzene (mg/kg)

Sample 3 with a concentration of 0.60 mg/kg

Sample 4 with a concentration of 0.80 mg/kg

Sample 5 with a concentration of 1.20 mg/kg

Sample 6 with a concentration of 1.85 mg/kg

Sample 7 with a concentration of 2.20 mg/kg

5. Interlaboratory Study Instructions

Laboratory participants were emailed the test program instructions. For a copy of the instructions, please see Annex A.

6. Description of Equipment/Apparatus:

For information on the equipment/apparatus specified in D7011 please see Annex B.

7. Data Report Forms: