

BOWSER-MORNER Testing Laboratories, Inc.

CORPORATE ADDRESS • 420 Davis Ave. • P.O. Box 51 • Dayton, Ohio 45401 • 513/253-8805
TOLEDO DISTRICT • 122 S. St. Clair St. • P.O. Box 838 • Toledo, Ohio 43696 • 419/255-8200
KENTUCKY DISTRICT • Route 8 West • P.O. Box 636 • Maysville, Kentucky 41056 • 606/564-5508

LABORATORY REPORT

February 1, 1977

Report to: The Hill & Griffith Co.
1262 State Ave.
Cincinnati, Ohio 45204

Laboratory No. G 120966
Authorization: C16026

Report on: One (1) sample of H. & G. Seacoal - (C-3 Grade) was submitted for analysis
on December 9, 1976.

PROCEDURE:

The as-received sample of Seacoal was analyzed for Moisture, Ash, Sulfur, Hydrogen, Carbon, Chloride, and Nitrogen. In addition a semiquantitative analysis of the as-received Seacoal was performed by Emission Spectroscopy. The Ash was also submitted for a semiquantitative analysis by Emission Spectroscopy. A 100 gram portion of the as-received Seacoal was leached in one liter of deionized water for seven days. The leachant was then analyzed for Cadmium, Lead, and Phenol.

TEST RESULTS:

The results of the analyses of the as-received Seacoal are as follows:

Sample Identification	H & G Seacoal - (C-3 Grade)
Moisture, % by weight	4.76
Ash, % by weight	3.71
Sulfur, % by weight	1.32
Hydrogen as H ₂ O, % by weight	5.80
Carbon, % by weight	76.75
Chloride, % by weight	0.22
Nitrogen, % by weight	1.88

PLAINTIFF'S EXHIBIT

H&G-47



- continued -

000024

HG-000025

The results of the semiquantitative analyses are as follows:

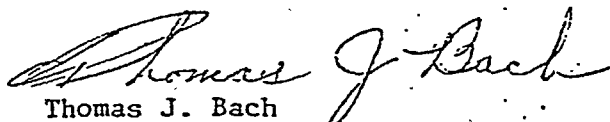
Sample Identification	As-received Seacoal <u>% by weight</u>	Residue from Ash Content, <u>% by weight</u>
Iron	0.50-1.0	10-15
Silicon	0.25-.50	10-15
Aluminum	0.25-.50	>20
Sodium	<.005	1-5
Calcium	0.025-.05	0.05-.10
Magnesium	0.005-.01	0.25-.75
Titanium	<.005	0.10-.25
Nickel	<.005	0.10-.25
Cadmium	<.005	0.05-.10
Zinc	<.005	0.05-.10
Copper	<.005	0.01-.05
Manganese	<.005	0.01-.05
Tin	<.005	0.01-.05
Molybdenum	<.005	0.01-.05
Vanadium	<.005	0.01-.05
Lead	<.005	0.01-.05
Bismuth	<.005	<.005
Arsenic	<.005	<.005

The results of the analyses of the leachant are as follows:

Sample Identification	Leachant
Cadmium, µg/l	11
Lead, µg/l	40
Phenol, µg/l	30

Respectfully submitted,

BOWSER-MORNER Testing Laboratories, Inc.


Thomas J. Bach
Chemist, Organic Chemistry Group

3-Client
2-File
TJB/jc

000025

HG-000026