

HRP

ASSOCIATES, INC.

September 20, 1994

Mr. James Flood
Bovano Industries, Inc.
830 South Main Street
Cheshire, Connecticut 06410

RE: RESULTS OF GROUND WATER SAMPLING CONDUCTED AT BOVANO INDUSTRIES, INC., 830 SOUTH MAIN STREET, CHESHIRE, CONNECTICUT (HRP #BOV-0001.RC)

Dear Mr. Flood:

On August 25, 1994, HRP Associates sampled two monitoring wells at Bovano Industries, Inc. located at 830 South Main Street in Cheshire, Connecticut.

As described in the proposal, HRP personnel redeveloped each well prior to sampling by removing at least six times the volume of standing water from each well. A total of 16 gallons (or 8 well volumes) was removed for redevelopment of MW-1, while 22 gallons (or 6 well volumes) were removed from MW-2. Ground water samples from both wells were collected with dedicated bailers and submitted to a State certified laboratory for analysis of pH, cadmium, chromium (total), copper, lead, nickel, silver, zinc, non-halogenated volatile organic (via EPA Method 8015), and aromatic volatile organics (via EPA Method 8020).

Copies of the laboratory reports for the analyses are included in Attachment 1 to this letter. As can be seen from the laboratory reports, copper is the only parameter detected in the ground water. The copper levels detected (0.02 mg/l in MW-1, 0.01 mg/l in MW-2) are well below the drinking water standard of 1.0 mg/l for copper. The laboratory detection limits for the remaining parameters were at or below the parameters' applicable drinking water standards.

Conclusions and Recommendations

It appears from the static water level measurements (obtained from the wells prior to redevelopment) that the ground water is flowing from MW-2 toward MW-1. Figure 1 (included in Attachment 2) depicts the general ground water flow. In order to more completely characterize ground water flow beneath the site, at least one more monitoring well would need to be installed to the north of Bovano's manufacturing facility. The location of this additional monitoring well would aid in ensuring that

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167 New Britain Ave. ■ Plainville, CT 06062 ■ (203) 793-6899 ■ FAX (203) 793-6871

Mr. James Flood
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future ground water samples are representative of ground water that flows under the facility. It is possible, for example, that both MW-1 and MW-2 are upgradient of the facility, and therefore, would not contain any trace contaminants that may enter the ground water from the facility. Since the difference in ground water elevation between MW-1 and MW-2 is only 0.08', it is possible that ground water is actually flowing in a north-south direction as opposed to east-west.

The stand pipes on MW-1 and MW-2 should be replaced before the next sampling event. Due to the effects of weathering and the fact that the wells were not sampled for at least five years, HRP personnel experienced great difficulty trying to remove the cap from each stand pipe. In order to conduct the ground water sampling, each stand pipe had to be completely removed from the ground to access the monitoring wells. HRP recommends that new stand pipes, with locking flip-top lids, be installed. The stand pipes should have concrete collars to prevent their removal from the ground.

If you have any questions or comments regarding this letter report, please call either Rick McFee or myself at 793-6899.

Sincerely,

HRP ASSOCIATES, INC.



Christopher R. Shepard
Project Engineer

CRS/cpk
Attachments

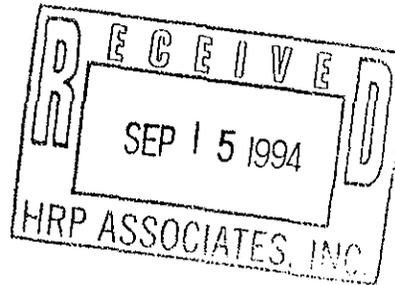
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ATTACHMENT 1
LABORATORY REPORTS

Bovand

BOV0001.RC

September 12, 1994



HRP Associates Inc.
167 New Britain Ave
Plainville, CT 06062

Attn: Ms. Pat Terwilliger

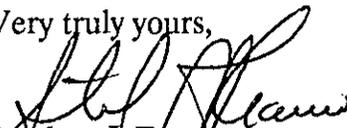
Please find attached laboratory report(s) for the samples submitted on :
August 25, 1994

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No. : 84-540-2
PO/JOB No. : BOV0001.RC
INVOICE No. : 46344
ORDER No. : 26254
CUSTOMER No. : 350

Please feel free to contact us if you have any questions.

Very truly yours,


Stephen J. Franco
Laboratory Director
PH-0547



STEPHEN J. FRANCO
Laboratory Director
PHONE ■ 203/634-3731

165 GRACEY AVENUE ■ MERIDEN, CT ■ 06451

Date Samples Received : 8-25-94

Client Name: **HRP Associates Inc.**
 Report Date: 9-12-94

CTL Lab No. 84-540-2
 PO/Job No. BOV0001.RC

RESULTS OF ANALYSIS**Dissolved Metals**

Matrix Type	W	W
CTL Sample No.	10389	10390
Field ID	MW1	MW2

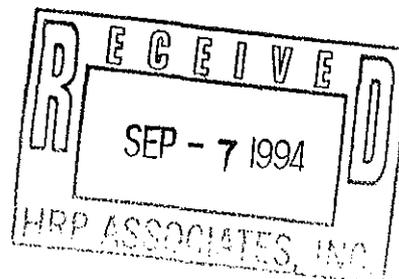
	7.1	7.1		
pH	7.1	7.1		
Silver-mg/L	ND<0.01	ND<0.01		
Cadmium-mg/L	ND<0.005	ND<0.005		
Chromium, Total-mg/L	ND<0.05	ND<0.05		
Copper-mg/L	0.02	0.01		
Nickel-mg/L	ND<0.05	ND<0.05		
Lead-mg/L	ND<0.010	ND<0.010		
Zinc-mg/L	ND<0.05	ND<0.05		

Matrix Types : W = Water/Aqueous
 S = Soil/Solid
 O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
 165 Gracey Avenue / Meriden, CT 06451-2268
 (203)-634-3731

Connecticut Certification No. PH-0547

September 1, 1994



HRP Associates Inc.
167 New Britain Ave
Plainville, CT 06062

Attn: Ms. Pat Terwilliger

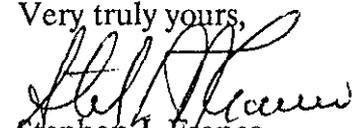
Please find attached laboratory report(s) for the samples submitted on :
August 25, 1994

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No. : 84-446-2
PO/JOB No. : BOV0001.RA
INVOICE No. : 46213
ORDER No. : 26123
CUSTOMER No.: 350

Please feel free to contact us if you have any questions.

Very truly yours,


Stephen J. Franco
Laboratory Director
PH-0547



STEPHEN J. FRANCO
Laboratory Director
PHONE ■ 203/634-3731

165 GRACEY AVENUE ■ MERIDEN, CT ■ 06451

Client : HRP Associates, Inc.	Date Tested : 8/31/94
Lab No. : 84-446-2	
PO No. : BOV0001.RC	Analyst : RS
Rep. Date : 9/1/94	

EPA METHOD 602/8020

Date Samples Rec'd: 8/25/94

Matrix Type : W W
 Field ID : MW-1 MW-2

	MDL				
Benzene	1	BDL	BDL		
Toluene	1	BDL	BDL		
Chlorobenzene	1	BDL	BDL		
Ethyl Benzene	1	BDL	BDL		
P & M Xylene	1	BDL	BDL		
O- Xylene	1	BDL	BDL		
1,4-Dichlorobenzene	1	BDL	BDL		
1,3-Dichlorobenzene	1	BDL	BDL		
1,2-Dichlorobenzene	1	BDL	BDL		

MDL = Minimum Detectable Level/ BDL = Below Detection Level/ UNITS= PPB

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbons

HRP Associates, Inc.
 167 New Britain Avenue
 Plainville, CT 06062
 Phone: 203-793-6899
 Fax: 203-793-6871

HRP

CHAIN OF CUSTODY

Sheet 1 of 1
 Job Number BOV 0001.RC
 Project Manager ROM

Place & Address of Collection BOVANO INDUSTRIES
830 S. MAIN ST. CHESHIRE, CT

Samplers Name (Signature) Christopher R. Sheple
 Assistant (Witness)(Signature)

Sample Number	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Type				Remarks
							Water	Soil	Air	Waste	
<u>1</u>	<u>MW-1</u>	<u>45-VIALS 1-PCUBE</u>	<u>166L</u>	<u>COOL</u>	<u>8/25/94</u>	<u>9:55</u>	<u>X</u>				<u>GROUNDWATER</u>
<u>2</u>	<u>MW-2</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>8/25/94</u>	<u>12:15</u>	<u>X</u>				<u>↓</u>

Relinquished By (Signature) Christopher R. Sheple Received By (Signature) William Cadore Date 8/25/94 Time 3:04 P.M.
 Relinquished By (Signature) _____ Received By (Signature) _____ Date _____ Time _____

Name & Address of Laboratory CTL MERIDEN

LABORATORY SAMPLE PREPARATION REQUIRED

None Filter Adjust pH to _____ Priority
 Other _____

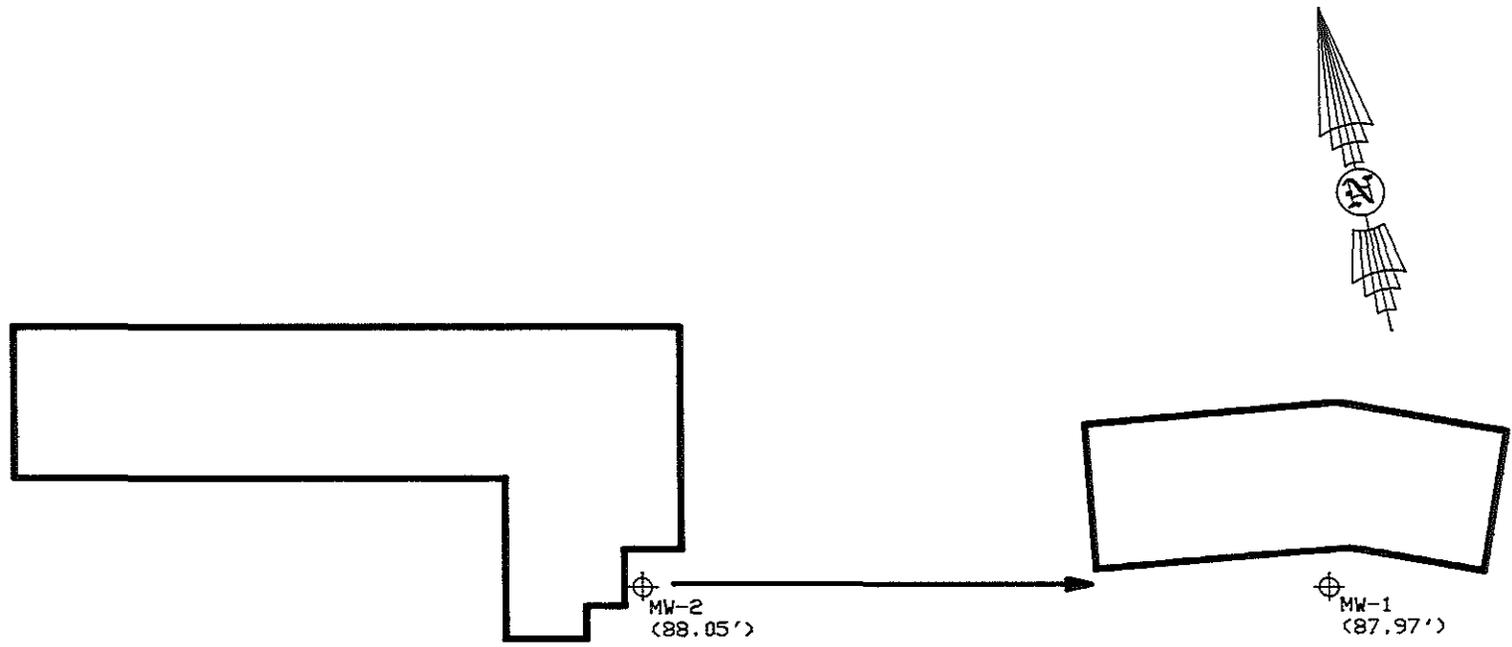
ANALYSES REQUIRED

Parameters	Sample Number				Parameters	Sample Number			
	1	2				1	2		
pH	X	X			TPH 418.1				
Ag	X	X			TOC				
Al					TOX				
As					STD Water				
Ba					Total Coliform				
Cd	X	X			Fluoride				
CN-A					Chloride				
CN-T					8010/601				
Cr ⁶					8015	✓	X	X	
Cr-T	X	X			8020/602	✓	X	X	
Cu	X	X			8020 + MTBE				
Fe-D					8080				
Hg					8100				
Na					8 TCLP Metals				
Ni	X	X							
Pb	X	X							
Se									
Sp. Cond.									
TDS									
Zn	X	X							

Remarks ONLY ANALYZE DISSOLVED METALS,

ATTACHMENT 2

MAP SHOWING APPARENT GROUND WATER FLOW DIRECTION



LEGEND

- MONITORING WELL AND
GROUND WATER LEVEL
- ASSUMED DIRECTION OF
GROUND WATER FLOW

FIGURE 1
GROUND WATER FLOW DIRECTION
BOVANO INDUSTRIES, INC.
830 SOUTH MAIN STREET
CHESHIRE, CT.
HRP #BOV.0001.RC
NOT TO SCALE

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