

N.C. DEPT. OF
ENVIRONMENT, HEALTH,
& NATURAL RESOURCES

JUL 22 1994

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

July 21st, 1994

CLOSURE REPORT & GEOLOGIST'S ASSESSMENT

**Site: The Perfect Image
3rd Avenue Drive, NW (Old Lenoir Road)
Hickory, Catawba County, NC**

**Prepared For: Mr Terry Church
Church's Body Shop, Inc.
P.O. Box 1528
Hickory, NC 28603-1528
704/396-2185**

**Prepared By: Certifoam Services, Inc./
Salem Environmental, Inc.
P.O. Box 5524
Winston-Salem, NC 27113-5524
910/661-9231
910/661-9241 (FAX)**

**Harvey Danner, Project Manager
Andrew Raring, Ph.D., P.G., Senior Geologist**

1.0 Project Summary

During the investigation soil contamination in excess of regulatory limits was confirmed as coming from UST (underground storage tank) #4. This release has migrated under an UST that could not be excavated due to structural considerations associated with a sidewall that is potentially unsound. Also, a release was confirmed in the area where the old pump island was located. Neither has been fully delineated.

Finally, two orphan USTs were discovered. One was alongside UST #1; the other was buried directly under it. But, the release there was below total petroleum hydrocarbon (TPH) levels requiring additional investigation.

2.0 Site & Area Characteristics

The tanks here were present when the property was purchased by Mr Church; a GW/UST-8 Form has been sent to Raleigh at the time of notification of intent to close. The form has been amended to include the "orphan" USTs (#6 & 8).

One non-commercial, heating oil use UST (#7) is located on site, which is buried on the east side of the station building. City water & sewer parallels the site along both streets; **no known operating wells are present within 1500'**. Slope falls to the north, and ground cover is asphalt with concrete underneath. Storm drains run along Old Lenoir Road. A copy from the Hickory Quadrangle, U.S. Geological Survey 7.5 Minute Series, has the site circled. Scale is 1" = 2,000'.

The most notable feature of the site is that it has been backfilled and brought up to the grade along Old Lenoir Road by as much as 8 feet. Furthermore, the fill has settled, especially along the wall end of USTs #2 & #3. A visible cant can be noted in the wall along its length as well.

Per the 1985 NC Geologic Map, bedrock is anticipated to be a micaceous schist, with lenses and layers of other rocks and minerals occurring locally. It resides in the Inner Piedmont Belt of the Piedmont Physiographic Province. Generally, ground water is intercepted between 15-35' in the Piedmont and is contained in a saprolite aquifer. However, it can be situated below the bedrock, dependent on local stratigraphy.

3.0 Field Investigation

Work commenced on Monday, July 11th. Our excavation subcontractor was M & K Construction of Mt Mourne, NC (704/896-7645). Nationwide Tank of Matthews handled disposal of USTs #1, 4, 5 & 6; USTs #2, 3, 7 & 8 were abandoned in-place with inert foam or sand, due in part to the retaining wall. The Hickory Fire Department was notified of our work, and all necessary permits were obtained.

After L & M Environmental of Sedalia, NC, pumped the residues and waste from all USTs, dry ice was purchased from MDI, Inc., and placed into the USTs. All slated for excavation

were uncovered, awaiting approval from the Fire Marshal. After that was granted, all were removed. Soil odor was strong beneath UST #4, and light under one orphan, #6. Samples were collected 2 feet below the tank bottoms. Disposable latex gloves were worn during sample collection to prevent cross-contamination. Soil was packed tightly into the glass jars supplied by the lab, which had teflon seal, screw caps. Temperature was maintained under 40 degrees by ice chest with a solid block coolant and refrigeration throughout our hold time.

Those associated with USTs #1, 4, 5, 6 and the pump isle (P-1) were collected from the backhoe bucket; the samples along USTs #2 & 3 were taken by hand auger. Decontamination of the auger was per tap water/phosphate-free soap wash followed by a methanol rinse and drying period. Care was taken to avoid disturbing the soil excessively. Only moderate odor was observed at #3B. All other points failed to show evidence of any release in the field. No sampling was required or performed at UST #7, the non-commercial heating oil tank. UST #8 was actually situated under UST #1.

Lithology was common to the area, once the backfill was removed. This fill was an orange silt with light sand; some rock was seen. At 8' a sandier silt with moderate mica was intercepted, which is assumed to be the local soil. Ground water or bedrock were not intercepted. Clean dirt, concrete block dust and crusher run were used for backfill.

4.0 Laboratory Results

Samples were carried to Blue Ridge Labs of Lenoir (NC License #275) for analysis. Methodology was dependent on UST contents; EPA 5030-8015 Modified, Purge & Trap was performed on all, save for #5-7', which was under the waste oil tank. There, EPA 9071 was employed. Also, EPA 3550 sonication was added to #1A-9 & #1B-8, as that UST supplied diesel fuel. Chains of sample custody are enclosed. Lab and field ID's are cross-referenced on the results which are the following, expressed in parts per million (ppm) total petroleum hydrocarbons (TPH)*:

#1A-9: <1/<5	#1B-8: <1/<5	#2A-7: <1	#2B-8: 7.6	#2C-8: <1
#3A-9: <1	#3B-10: 301	#3C-10: 230	#4A-10: 455	#4B-10: 504
	#5-7: <3	#6-8: 3.8	#P-4: 238	

*- Sample #5-7 is expressed in total oil & grease (TO&G). Also, #1A & 1B's TPH values are shown as 5030/3550.

5.0 Geologist's Assessment

Potential for release has been eliminated by removal of all known USTs, related pipes and pumps from this site. There had been release from at least one of the USTs and the product

lines at the pumps. Not all contaminated soil could be excavated. Further investigation and remedial activity will be required. It is suggested that additional excavation is the most cost effective first response. If it is not possible to remove all soil impacted above the regulatory limit, a soil borings investigation will be made. From information gathered by the investigation, either a site sensitivity evaluation (SSE) will be prepared or a comprehensive site assessment will be required. It is our opinion that, based on the modest levels of contamination and the physical and cultural site setting, excavation, or, at most, an SSE will successfully conclude this site closure.

6.0 Warranty & Limitations

We, the undersigned, attest that our work was carried out with full respect to regulatory guidance and, where such guidance was not applicable, standard industry procedures. The data received from the independent lab is assumed to be accurately delineated and transposed. Should we find otherwise, we reserve the right to alter this report as necessary. The assessment applies to the time and place of sampling only; no other expressed or implied warranty is offered. This report is the exclusive property of Church's Body Shop, Inc., and it will not be released without prior approval.

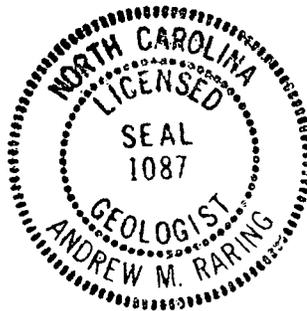
Sincerely,



Harvey C. Danner, Jr.
President/Project Manager



Andrew M. Raring, Ph.D., P.G.
Senior Geologist



FOR
TANKS
IN
NC

Return Completed Form To:

The appropriate DEM Regional Office according to the county of the facility's location.
[SEE MAP ON REVERSE SIDE OF OWNER'S COPY (PINK) FOR REGIONAL OFFICE ADDRESS].

State Use Only

I.D. Number _____

Date Received _____

INSTRUCTIONS

Complete and return within (30) days following completion of site investigation.

I. Ownership of Tank(s)

Owner Name: Church's Body Shop, Inc.
 Corporation, Individual, Public Agency, or Other Entity
 Street Address: P.O. Box 1528
 County: Catawba
 City: Hickory State: NC Zip Code: 28603
 Telephone Number: (704) 396-2185
(Area Code)

II. Location of Tank(s)

Facility Name: The Perfect Image
 (or Company)
 Facility ID # (if available): _____
 Street Address: Old Lenoir Road
 (or State Road)
 County: Catawba City: Hickory Zip Code: 28601
 Telephone Number: (704) 328-6552
(Area Code)

III. Contact Person

Name: Tenny Church Job Title: Owner Tel. No.: 704-396-2185
 Closure Contractor: Certi Foam Services Address: P.O. Box 5524, W-5, NC 27113 Tel. No.: 910-661-9231
 Primary Consultant: Andrew Raring Address: Same Tel. No.: 910-661-9249
 Lab: Blue Ridge Labs Address: P.O. Box 2940, Lenoir NC 28645 Tel. No.: 704-728-0199

IV. U.S.T. Information

V. Excavation Condition

VI. Additional Information Required

Tank No.	Size in Gallons	Tank Dimensions	Last Contents	Water In Excavation		Free Product		Notable Odor or Visible Soil Contamination	
				Yes	No	Yes	No	Yes	No
1	1000	48" x 126"	diesel		X		X		X
2	3000	64" x 18'	gasoline		X		X		X
3	3000	64" x 18'	"		X		X	X	
4	2000	64" x 12'	"		X		X	X	
5	550	50" x 63"	Waste oil		X		X		X
6	280	36" x 60"	gasoline		X		X	X	

See reverse side of pink copy (owner's copy) for additional information required by N.C. - DEM in the written report and sketch.

NOTE: The site assessment portion of the tank closure must be conducted under the supervision of a Professional Engineer or Licensed Geologist. After Jan. 1, 1994, all closure site assessment reports must be signed and sealed by a P.E. or L.G.

VII. Check List (Check the activities completed)

PERMANENT CLOSURE (For Removing or Abandoning-in-place)

- Contact local fire marshal.
 - Notify DEM Regional Office before abandonment.
 - Drain & flush piping into tank.
 - Remove all product and residuals from tank.
 - Excavate down to tank.
 - Clean and inspect tank.
 - Remove drop tube, fill pipe, gauge pipe, vapor recovery tank connections, submersible pumps and other tank fixtures.
 - Cap or plug all lines except the vent and fill lines.
 - Purge tank of all product & flammable vapors.
 - Cut one or more large holes in the tanks.
 - Backfill the area.
- Date Tank(s) Permanently closed: July 11th & 12th, 1994
 Date of Change-in-Service: _____

ABANDONMENT IN PLACE (2, 3, 8)

- Fill tank until material overflows tank opening.
- Plug or cap all openings.
- Disconnect and cap or remove vent line.
- Solid inert material used - specify: Nitrogen
- Resin Foam

REMOVAL (1, 4, 5, 6)

- Create vent hole.
- Label tank.
- Dispose of tank in approved manner.
- Final tank destination: Nationwide Tank; Matthews, NC.

VIII. Certification (Read and Sign)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Print name and official title of owner or owner's authorized representative

Harvey Dammer; Pres. Certifoam Services

Signature

Harvey Dammer

Date Signed

July 21st, 1994

FIGURE 2-SITE MAP-CHURCH'S BODY SHOP
THE PERFECT IMAGE, Old Lenoir Road, Hickory, Catawba County

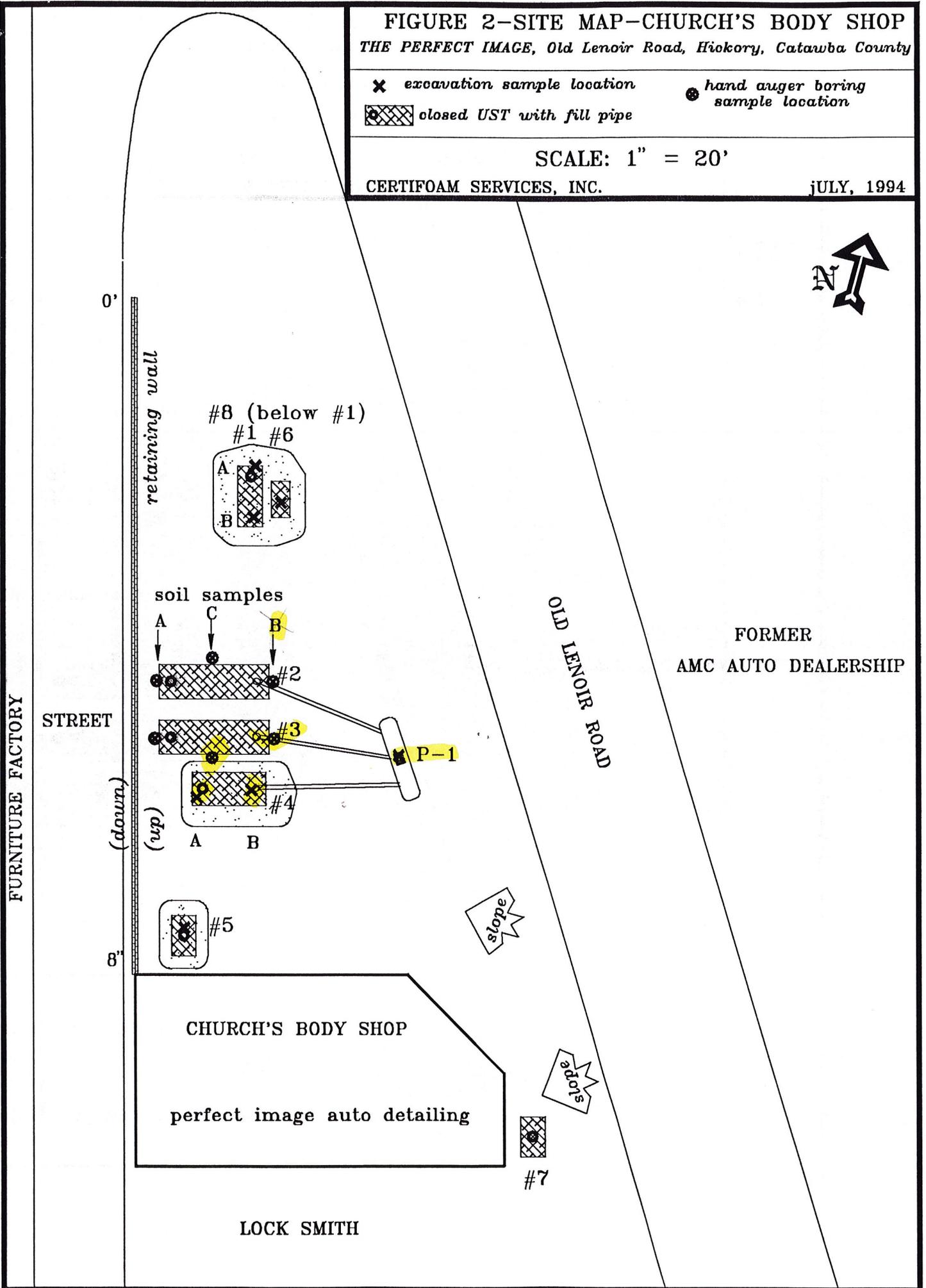
✕ excavation sample location
 [hatched box] closed UST with fill pipe

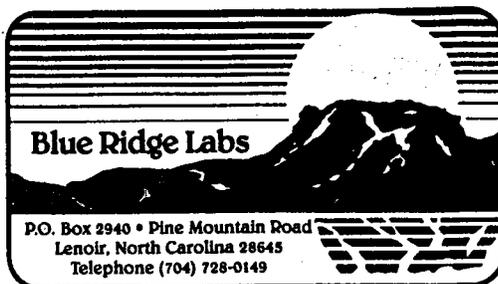
● hand auger boring sample location

SCALE: 1" = 20'

CERTIFOAM SERVICES, INC.

JULY, 1994





CLIENT: Certifoam Services, Inc.
 P. O. Box 5524
 Winston-Salem, NC 27113
 Attention: Mr. H. Danner, Jr.

DATE RECEIVED: July 11, 1994

DATE REPORTED: July 14, 1994

<u>SAMPLE NUMBER</u>	<u>SAMPLE DESCRIPTION</u>
407-1432A	Soil; 1A-9'-TPI for 5030, 3550.
407-1432B	Soil; 1B-8'-TPI for 5030, 3550.
407-1432C	Soil; 2A-7'-TPI for 5030.
407-1432D	Soil; 2C-8'-TPI for 5030.
407-1432E	Soil; 3A- 8 '-TPI for 5030.
407-1432F	Soil; 3B-10'-TPI for 5030.
407-1432G	Soil; 3C-10'-TPI for 5030.
407-1432H	Soil; 4A-10'-TPI for 5030.

<u>PARAMETER</u>	<u>RESULTS</u>	<u>MQL</u>	<u>DATE ANALYZED</u>
407-1432A - 5030	*	1.0 mg/kg	7/12/94
- 3550	*	5.0 mg/kg	7/12/94
407-1432B - 5030	*	1.0 mg/kg	7/12/94
- 3550	*	5.0 mg/kg	7/12/94
407-1432C - 5030	*	1.0 mg/kg	7/12/94
407-1432D - 5030	*	1.0 mg/kg	7/12/94

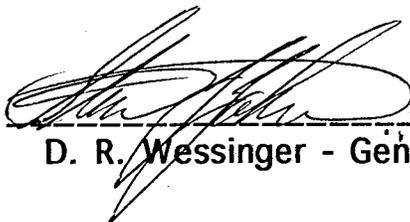
* Concentrations are below Minimum Quantification Limit except where noted.

NC Laboratory Certificate No. 275.

<u>PARAMETER</u>	<u>RESULTS</u>	<u>MOL</u>	<u>DATE ANALYZED</u>
407-1432E - 5030	*	1.0 mg/kg	7/12/94
407-1432F - 5030 **	301	1.0 mg/kg	7/12/94
407-1432G - 5030 **	230	1.0 mg/kg	7/12/94
407-1432H - 5030 **	455	1.0 mg/kg	7/12/94

**NOTE: Estimated values, beyond linear range.

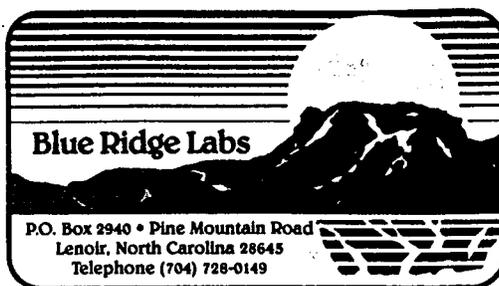
REPORTED BY:



D. R. Wessinger - General Manager

* Concentrations are below Minimum Quantification Limit except where noted.

NC Laboratory Certificate No. 275.



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 P. O. Box 5524
 Winston-Salem, NC 27113
 Attention: Mr. H. Danner, Jr.

DATE RECEIVED: July 11, 1994

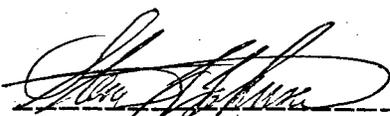
DATE REPORTED: July 13, 1994

SAMPLE NUMBER SAMPLE DESCRIPTION

407-1435A Soil; 4B-10' TPI for 5030.
 407-1435B Soil; #6-8' TPI for 5030.
 407-1435C Soil; P-4' TPI for 5030.
 407-1435D Soil; 2B-8' TPI for 5030.

<u>PARAMETER</u>	<u>RESULTS</u>	<u>MOL</u>	<u>DATE ANALYZED</u>
407-1435A - 5030**	504	1.0 mg/kg	7/12/94
407-1435B - 5030	3.8	1.0 mg/kg	7/12/94
407-1435C - 5030**	238	1.0 mg/kg	7/12/94
407-1435D - 5030	7.6	1.0 mg/kg	7/12/94

**NOTE: Estimated values, beyond linear range.

REPORTED BY: 

 D. R. Wessinger - General Manager

* Concentrations are below Minimum Quantification Limit except where noted.



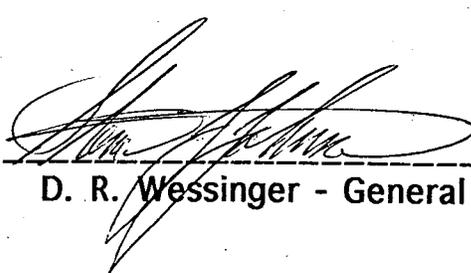
CLIENT: Certifoam Services, Inc.
P. O. Box 5524
Winston-Salem, NC 27113
Attention: Mr. H. Danner, Jr.

DATE RECEIVED: July 11, 1994

DATE REPORTED: July 13, 1994

<u>SAMPLE NUMBER</u>	<u>SAMPLE DESCRIPTION</u>
407-1434	Soil; 5-7' TPI for 9071.

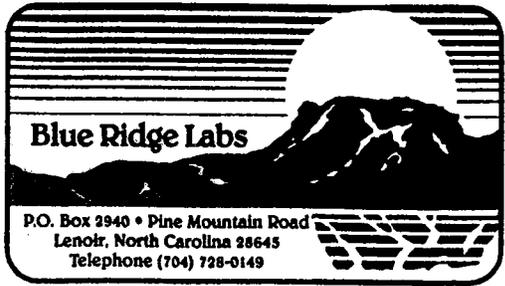
<u>PARAMETER</u>	<u>RESULTS</u>	<u>MOQ</u>	<u>DATE ANALYZED</u>
407-1434 - 9071	*	3 mg/kg	7/12/94

REPORTED BY: 
D. R. Wessinger - General Manager

* Concentrations are below Minimum Quantification Limit except where noted.

NC Laboratory Certificate No. 275.

1432
407-1342



CHAIN OF CUSTODY RECORD

CLIENT: certifoam

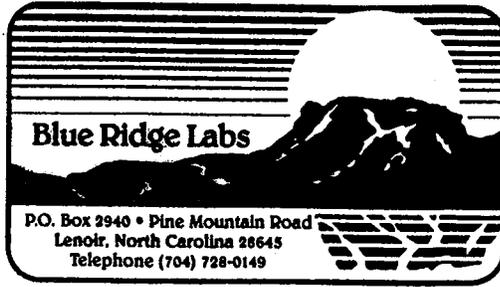
PROJECT NAME: The Perfect Image

Sample I.D.	Sample Type	Collection		Pres.	Int.	Requested Analysis
		Date	Time			
1A-9' T.P.I	soil	7-11-94	3:45	iced	D.E	5030/3550
1B-8' T.P.I	↓	↓	3:35	↓	↓	5030/3550
2A-7' T.P.I			1:45			5030
2C-8' T.P.I.			1:50			5030
3A-9' T.P.T			1:40			5030
3B 10' T.P.T			3:10			5030
3C 10' T.P.I			3:05			5030
4A 10' T.P.I			10:05			5030

RELINQUISHED BY:
David Eder

DATE
7-11-94

RECEIVED BY:
Robert Whissinger



407-1434 ✓
407-1435 ✓

CHAIN OF CUSTODY RECORD

CLIENT: certifoam

PROJECT NAME: Perfect Image

Sample I.D.	Sample Type	Collection		Pres.	Int.	Requested Analysis
		Date	Time			
4B 10' T.P.I	Soil	7-11-94	10:15	iced	D.E.	5030
407-1434 5-7' T.P.I	↓	↓	3:30	↓	↓	9071
# 6-8' T.P.I			3:40			5030
P-4' T.P.I			4:25			5030
2 B 8' T.P.I			4:40			5030

RELINQUISHED BY:

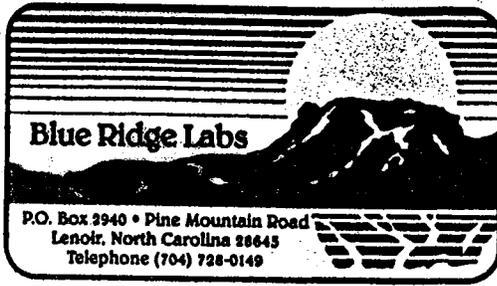
David Eder

DATE

7-11-94

RECEIVED BY:

Reslie Wessinger



407-1434 ✓
407-1435

CHAIN OF CUSTODY RECORD

CLIENT: certifoam

PROJECT NAME: Perfect Image

Sample I.D.	Sample Type	Collection		Pres.	Int.	Requested Analysis
		Date	Time			
4B 10' T.P.I	Soil	7-11-94	10:15	iced	D.E.	5030
407-1434 5-7' T.P.I	↓	↓	3:30	↓	↓	9071
# 6-8' T.P.I	↓	↓	3:40	↓	↓	5030
9-4' T.P.I	↓	↓	4:25	↓	↓	5030
3 B 8' T.P.I	↓	↓	4:40	↓	↓	5030

RELINQUISHED BY:

David Eder

DATE

7-11-94

RECEIVED BY:

Reelin Wessinger