



Fac/Perm/Co ID #	Date	Doc ID#
BC	6/14/88	DIN

GAI Consultants - NC, Inc.

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August 29, 1995

Mr. Bobby Lutfy, Hydrogeologist  
Solid Waste Section  
Division of Solid Waste Management  
North Carolina Department of Environment,  
Health, and Natural Resources  
P.O. Box 27687  
Raleigh, North Carolina 27611-7687

Re: Groundwater Monitoring Well 1 Abandonment  
Avery County Landfill  
Spruce Pines, North Carolina  
Project No. 95125.02

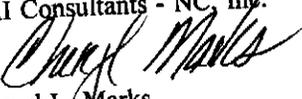
Dear Mr. Lutfy:

The Solid Waste Section of the Division of Solid Waste Management of the Department of Environment, Health, and Natural Resources, State of North Carolina instructed Avery County to replace and then permanently abandon damaged Groundwater Monitoring Well 1 at the Avery County Landfill, Spruce Pines, North Carolina in a letter dated February 20, 1995 from Larry Rose, Hydrogeological Technician, Solid Waste Section.

The damaged Groundwater Monitoring Well 1 at the Avery County Landfill, Spruce Pines, North Carolina was replaced with Groundwater Monitoring Well 1R on April 25, 1995 and then abandoned on July 30, 1995. The well replacement and abandonment was completed in general accordance with State Well Construction Standards 15A NCAC 2C.

A well completion record for Groundwater Monitoring Well 1R and an abandonment record for Ground Water Monitoring Well 1 are enclosed.

Sincerely,  
GAI Consultants - NC, Inc.

  
Cheryl L. Marks  
Geologist

Copy to: Mr. Wayne Sullivan, Municipal Engineering Services Company

CLM/kla

North Carolina  
 Department of Environment, Health, & Natural Resources  
 Division of Environmental Management  
 Groundwater Section  
 P.O. Box 27687 - Raleigh, N.C. 27611

**WELL ABANDONMENT RECORD**

CONTRACTOR GAI Consultants - N.C., Inc. REG. NO. 446

1. WELL LOCATION: (Show a sketch of the location on back of form.)  
 Nearest Town: Spruce Pines County Avery  
Bushy Creek Rd Quadrangle No. \_\_\_\_\_  
 (Road, Community, Subdivision, Lot No.)

2. OWNER: Avery County

3. ADDRESS: Newland NC

4. TOPOGRAPHY : draw, slope, hilltop, valley, (flat)

5. USE OF WELL: Monitoring DATE: 7-31-95

6. TOTAL DEPTH: 24.10 DIAMETER: 2"

7. CASING REMOVED:  

<u>feet</u>	<u>diameter</u>
<u>none</u>	_____
_____	_____

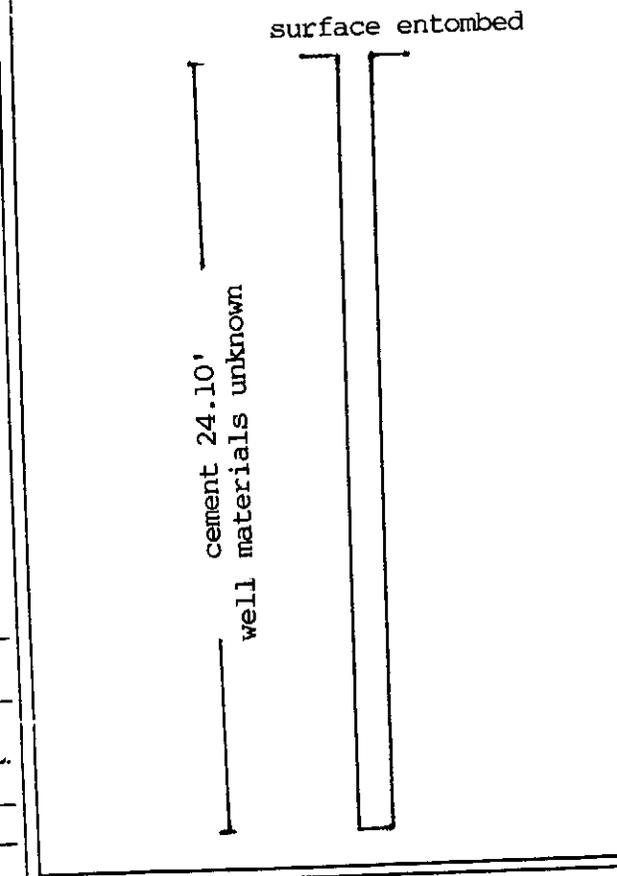
8. SEALING MATERIAL:

<u>Neat cement</u> bags of cement <u>6</u>	<u>Sand cement</u> bags of cement _____
gals. of water <u>72</u>	yds. of sand _____
_____	gals. of water _____

Other  
 Type material \_\_\_\_\_  
 Amount \_\_\_\_\_

9. EXPLAIN METHOD EMPLACEMENT OF MATERIAL.  
Cement was pumped into annulus,  
filled to top of casing.  
Top of casing was entombed.

WELL DIAGRAM: Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill materials used.



I do hereby certify that this well abandonment record is true and exact.

Signature of Contractor or Agent Cheryl Marks Date 8-21-95

WELL LOCATION: Draw a location sketch on the reverse of this sheet, showing the direction and distance of the well to at least two (2) nearby reference points such as roads, intersections and streams. Identify roads with State Highway road identification numbers.

Submit original to the Division of Environmental Management, one copy to the Driller, and one copy to the owner.

FOR OFFICE USE ONLY  
 QUAD. NO. \_\_\_\_\_ SERIAL NO. \_\_\_\_\_  
 Lat \_\_\_\_\_ Long. \_\_\_\_\_ RO \_\_\_\_\_  
 Minor Basin \_\_\_\_\_  
 Basin Code \_\_\_\_\_  
 Header Ent. \_\_\_\_\_ GW-1 Ent \_\_\_\_\_

**WELL CONSTRUCTION RECORD** MW-R

BILLING CONTRACTOR: GAI Consultants  
 BILLER REGISTRATION NUMBER: 446

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

WELL LOCATION: (Show sketch of the location below)  
 Nearest Town: Spruce Springs County: Avery

(Road, Community, or Subdivision and Lot No.)  
 OWNER Avery County  
 ADDRESS PO Box 640  
 (Street or Route No.)  
Newland NC 28657  
 City or Town State Zip Code

DEPTH		DRILLING LOG
From	To	Formation Description
0.0'	7.0'	Brown mica clayey silt
7.0'	22.0'	Saprolite, mica banding few quartz
22.0		Bottom of boring

DATE DRILLED 4-25-95 USE OF WELL Monitoring  
 TOTAL DEPTH 22'  
 CUTTINGS COLLECTED YES  NO   
 DOES WELL REPLACE EXISTING WELL? YES  NO   
 STATIC WATER LEVEL Below Top of Casing: 10.0 FT.  
 (Use "-" if Above Top of Casing)  
 TOP OF CASING IS +2.5 FT. Above Land Surface\*  
 \*Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118  
 YIELD (gpm): N/A METHOD OF TEST \_\_\_\_\_  
 WATER ZONES (depth): 10.0 - 22.0

11. CHLORINATION: Type N/A Amount \_\_\_\_\_

12. CASING:

From	Depth	To	Diameter	Wall Thickness or Weight/Ft.	Material
<u>+2.5</u>	<u>7</u>		<u>2"</u>	<u>Sch 40</u>	<u>PVC</u>
From _____	To _____	Ft. _____	_____	_____	_____
From _____	To _____	Ft. _____	_____	_____	_____

13. GROUT:

From	Depth	To	Material	Method
<u>4</u>	<u>5.6</u>	Ft. <u>bentonite</u>	<u>pellets</u>	
<u>0</u>	<u>4</u>	Ft. <u>neat cement</u>	<u>pour</u>	

14. SCREEN:

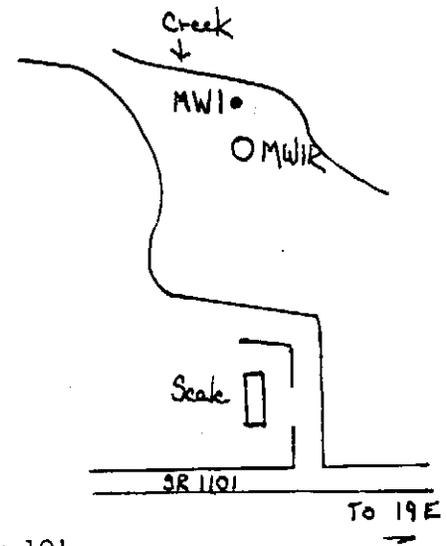
From	Depth	To	Diameter	Slt Size	Material
<u>7</u>	<u>22.0</u>	Ft. <u>2"</u> in. <u>.010</u> in.	<u>PVC</u>		
From _____	To _____	Ft. _____ in. _____ in.	_____		
From _____	To _____	Ft. _____ in. _____ in.	_____		

15. SAND/GRAVEL PACK:

From	Depth	To	Size	Material
<u>5.6</u>	<u>22.0</u>	Ft. _____	_____	_____
From _____	To _____	Ft. _____	_____	_____

16. REMARKS: Monitoring Well IR Water level approximately 10'

LOCATION SKETCH  
 (Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C. WELL CONSTRUCTION STANDARDS. AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Cheryl Marks 5-17-95  
 SIGNATURE OF CONTRACTOR OR AGENT DATE  
 Submit original to Division of Environmental Management and copy to well owner