

No. 98-26

FEE 160<sup>00</sup>

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

Application for a Permit to Construct ( ) Repair (x) Upgrade ( ) Abandon ( ) - Complete System (x) Individual Components ( )

TOM DAVIS



Location	15 CORTLAND DR.	Owner's Name	Vlasta Greenbie
Map/Parcel#		Address	15 Cortland Drive
Lot#	#15	Telephone#	256-6144
Installer's Name	KARL'S	Designer's Name	ALAN E. WEISS, P.E.
Address	MARLEY	Address	Belchertown
Telephone#	549-5396	Telephone#	413-323-5957

Type of Building Res Lot Size 36,762<sup>71</sup> sq. ft.  
 Dwelling - No. of Bedrooms 3 Garbage grinder (x)  
 Other - Type of Building \_\_\_\_\_ No. of persons \_\_\_\_\_ Showers ( ), Cafeteria ( )  
 Other Fixtures \_\_\_\_\_  
 Design Flow (min. required) 330 gpd Calculated design flow 382 Design flow provided 382 gpd  
 Plan: Date 11/2/98 Number of sheets \_\_\_\_\_ Revision Date \_\_\_\_\_  
 Title SEPTIC SYSTEM REPAIR PLAN FOR VLASTA GREENBIE  
 Description of Soil(s) SAND (CLASS I)  
 Soil Evaluator Form No. \_\_\_\_\_ Name of Soil Evaluator A. WEISS Date of Evaluation 10/08/98

DESCRIPTION OF REPAIRS OR ALTERATIONS NEW SAS, PIPE THN OLD SITANK + PUMP + Fill OLD SITANK. Maintain proper pitch to New SITANK.

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed Vlasta K Greenbie Date Nov 4, 98

Inspections Amherst

12/1	11/02	9:00 AM	RAU
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No. 98-26

FEE 160<sup>00</sup>

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

CERTIFICATE OF COMPLIANCE

Description of Work: Individual Component(s) ( ) Complete System (x)

The undersigned hereby certify that the Sewage Disposal System; Constructed ( ), Repaired (x), Upgraded ( ), Abandoned ( )

by: \_\_\_\_\_  
 at 15 Cortland Drive  
 has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. \_\_\_\_\_, dated \_\_\_\_\_, Approved Design Flow \_\_\_\_\_ (gpd)

Installer \_\_\_\_\_ Designer: \_\_\_\_\_ Inspector: Alan Weiss Date: 12/28/98

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. 98-26

FEE 160<sup>00</sup>

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct ( ) Repair (x) Upgrade ( ) Abandon ( ) an individual sewage disposal system at 15 Cortland Drive as described in the application for Disposal System Construction Permit No. 98-26, dated 11-10-98

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

Form 1255 Rev. 5/96 A.M. Sulkin Co. Boston, MA Date 11-10-98 Board of Health Alan Weiss

UNIVERSITY OF CALIFORNIA



DEPARTMENT OF CHEMISTRY

General Chemistry Laboratory

1	100.00	100.00
2	100.00	100.00
3	100.00	100.00
4	100.00	100.00
5	100.00	100.00

1. Weigh out 100.00 g of the sample and transfer it to a 250 mL beaker.

2. Add 100 mL of distilled water to the beaker and stir with a glass rod.

3. Transfer the solution to a 250 mL volumetric flask and dilute to the mark with distilled water.

4. Mix thoroughly and transfer an aliquot of 10.00 mL to a 100 mL beaker.

5. Add 10.00 mL of 0.1000 M sodium hydroxide solution to the beaker.

6. Titrate with 0.1000 M hydrochloric acid solution until the endpoint is reached.

7. Record the volume of hydrochloric acid solution used in the titration.

8. Calculate the molarity of the original solution.

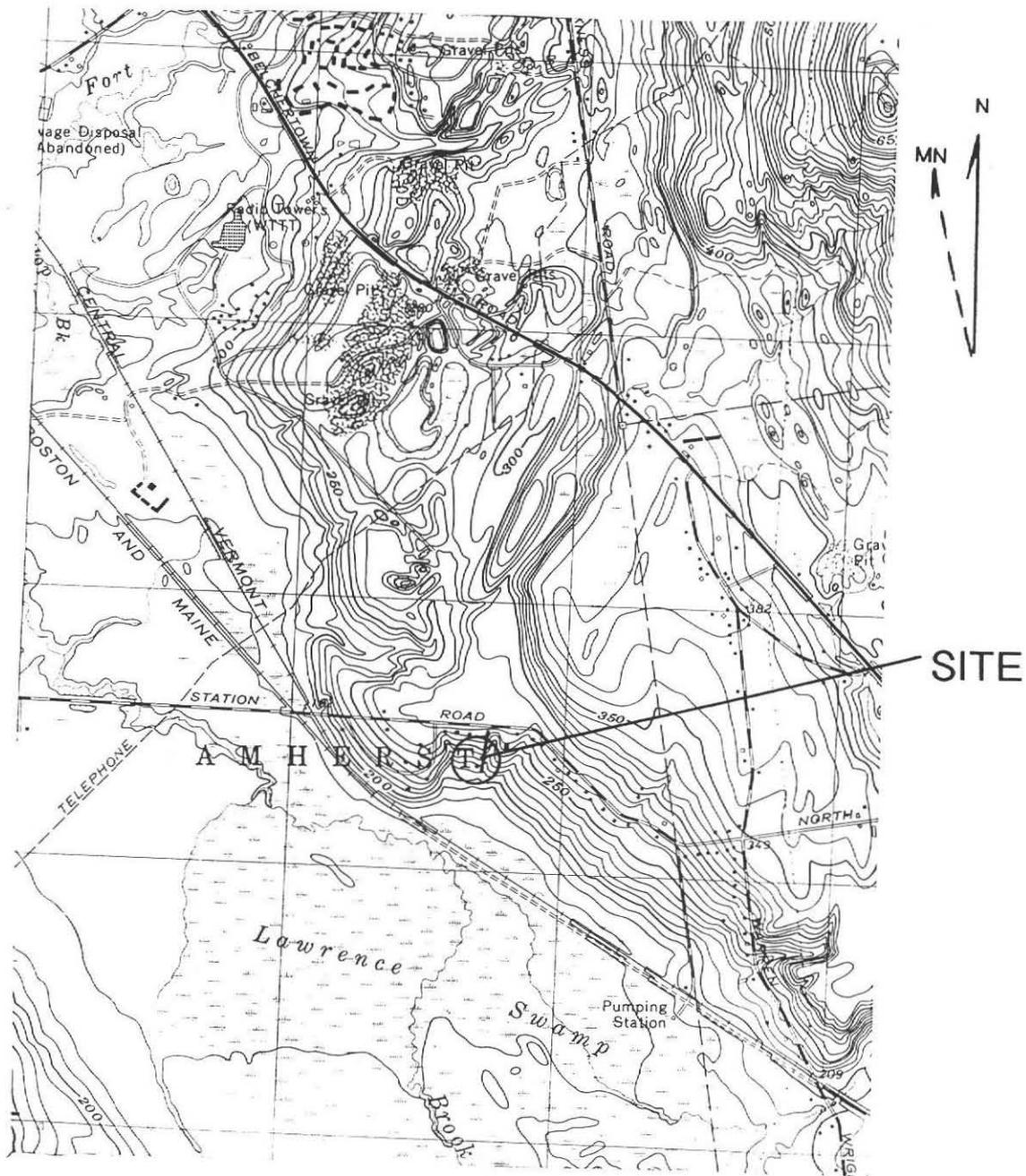
9. Repeat the titration for a second trial.

10. Calculate the average molarity of the original solution.

11. Report your results to the instructor.

12. Clean up your workspace and return all glassware to the stockroom.

# FIGURE 1: SITE LOCUS

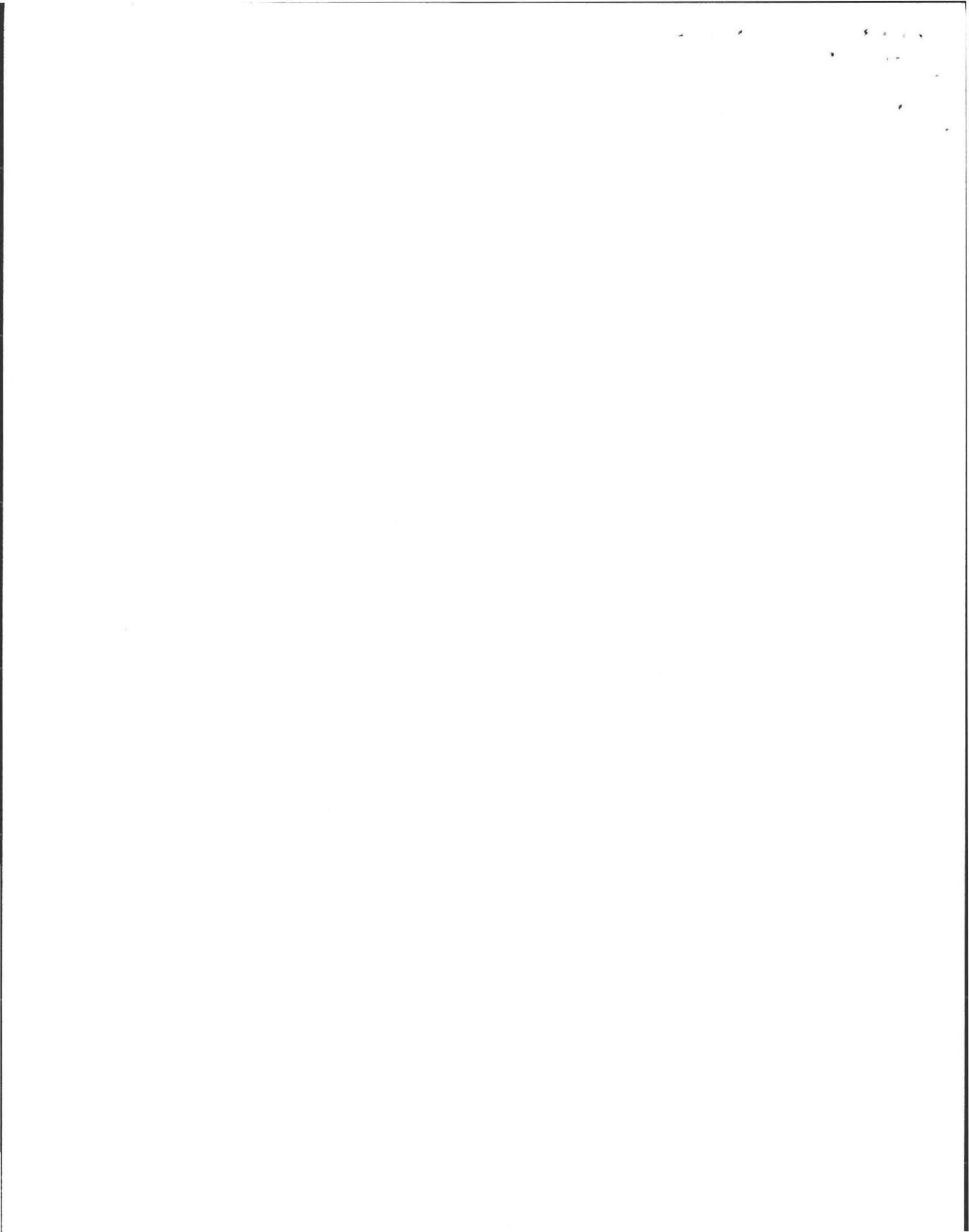


SCALE: 1"=2,083 FT.

USGS 7.5 MIN. QUAD.

0 FEET 2000

COLD SPRING ENVIRONMENTAL INC.





**ALAN E. WEISS, M.S., L.S.P.**  
Licensed Site Professional  
Registered Sanitarian  
Hydrogeologist  
President

350 Old Enfield Rd.  
Belchertown, MA 01007  
(413) 323-5957 & 323-4916 (FAX)

- Subsurface Investigations
- 2IE Site Investigations
- Pollution Remediation
- Percolation Tests and Septic Designs

Date: 10/08/98

Commonwealth of Massachusetts  
**AMHERST**, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. WEISS  
Witnessed By: D. ZAROZINSKI

Date: 10/08/98

Location Address or Lot # <u>15 CORTLAND DR AMHERST</u>	Owner's Name, Address, and Telephone # <u>VLASTA GREENBIE 15 CORTLAND DR. AMHERST, MA.</u>
New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	

Office Review

Published Soil Survey Available: No  Yes   
Year Published 1981 Publication Scale 1:15,040  
Drainage Class RAPID + V. RAPID Soil Limitations ---

Hinkley LS  
Soil Map Unit Hg B

Surficial Geologic Report Available: No  Yes   
Year Published \_\_\_\_\_ Publication Scale \_\_\_\_\_

Geologic Material (Map Unit) \_\_\_\_\_

Landform \_\_\_\_\_

Flood Insurance Rate Map:

Above 500 year flood boundary No  Yes   
Within 500 year flood boundary No  Yes   
Within 100 year flood boundary No  Yes

Wetland Area:

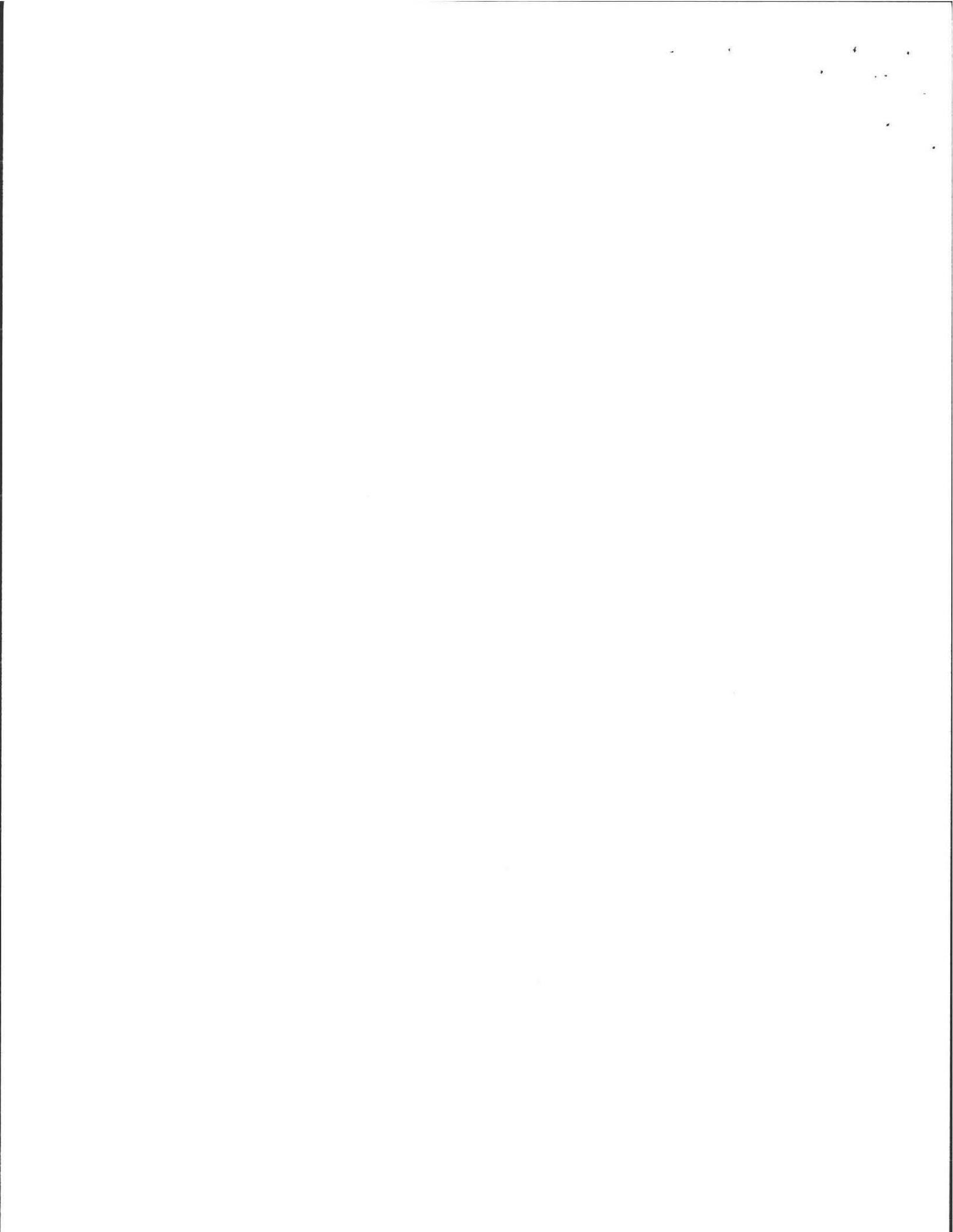
National Wetland Inventory Map (map unit) N/A  
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range :Above Normal  Normal  Below Normal

Other References Reviewed: \_\_\_\_\_





Location Address or Lot No. #15 CORTLAND DR

On-site Review

Deep Hole Number TP-1 Date: 10/08 Time: 9:00 AM Weather RAIN

Location (identify on site plan) \_\_\_\_\_

Land Use Rural / Res. Slope (%) 10 Surface Stones \_\_\_\_\_

Vegetation Grass

Landform Terraced.

Position on landscape (sketch on the back)

Distances from:

Open Water Body 100' + feet Drainage way 150' + feet

Possible Wet Area " + feet Property Line 100' feet

Drinking Water Well " + feet Other \_\_\_\_\_

DEEP OBSERVATION HOLE LOG\*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-8"	A	FSL	10YR 3/3		Friable
8-22"	Bw	FSL	10YR 4/8		"
22-144"	C	S	10YR 6/4		Loose F-L SAND, COARSER w/ Depth, Some Cobbles.

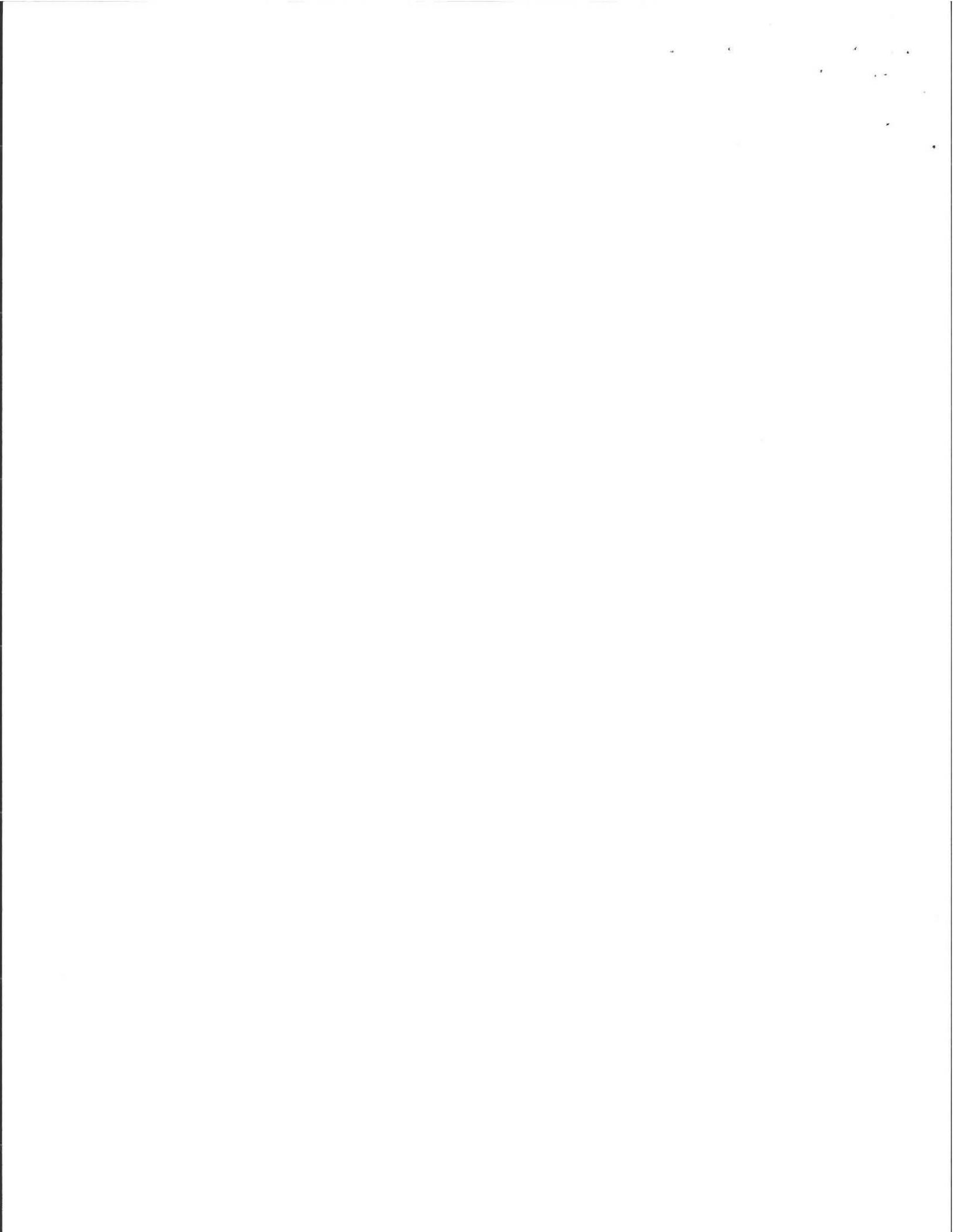
\* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) OUTWASH Depth to Bedrock: 12' +

Depth to Groundwater: Standing Water in the Hole: N/A. Weeping from Pit Face: N/A.

Estimated Seasonal High Ground Water: 12' +





FORM 12 - PERCOLATION TEST

Location Address or Lot No. # 15 CORTLAND DR.

COMMONWEALTH OF MASSACHUSETTS

AMHERST, Massachusetts

Percolation Test*		
Date:	<u>10/08/98</u>	Time: <u>9:00 AM</u>
Observation Hole #	<u>P<sub>1</sub></u>	
Depth of Perc	<u>44"</u>	
Start Pre-soak	<u>CAN'T HOLD</u>	
End Pre-soak		
Time at 12"	↓	
Time at 9"		
Time at 6"		
Time (9"-6")		
Rate Min./Inch		<u>&lt; 2 MIN IN</u>

\* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

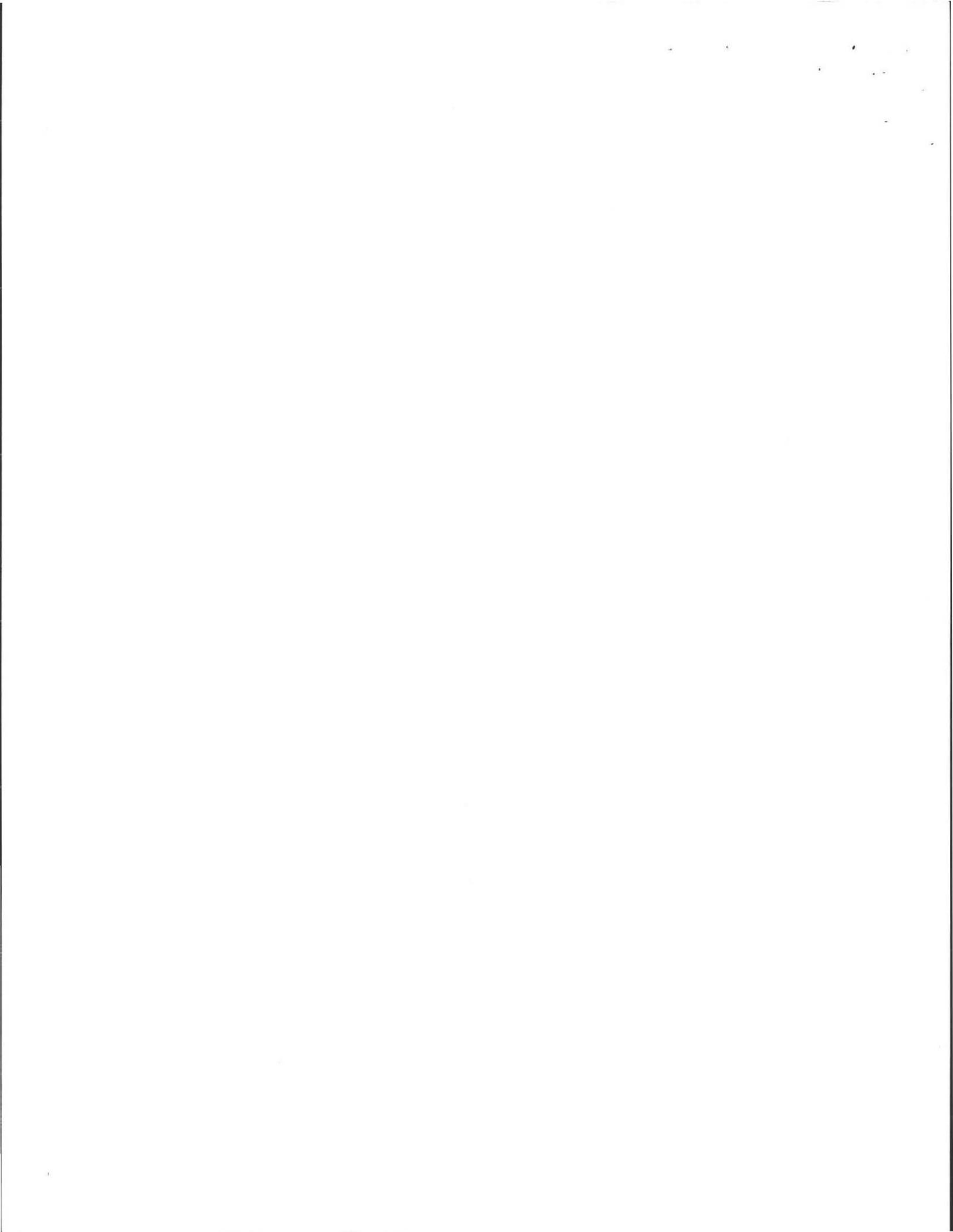
Site Passed  Site Failed

Performed By: A. WEISS

Witnessed By: D. ZAROZINSKI

Comments: \* 5' SEPARATION





Location Address or Lot No. # 15 CORTLAND DR, Amherst

Determination for Seasonal High Water Table

Method Used:

- Depth observed standing in observation hole \_\_\_\_\_ inches
- Depth weeping from side of observation hole 144" inches
- Depth to soil mottles \_\_\_\_\_ inches
- Ground water adjustment \_\_\_\_\_ feet

Index Well Number \_\_\_\_\_ Reading Date \_\_\_\_\_ Index well level \_\_\_\_\_

Adjustment factor \_\_\_\_\_ Adjusted ground water level \_\_\_\_\_

Depth of Naturally Occurring Pervious Material

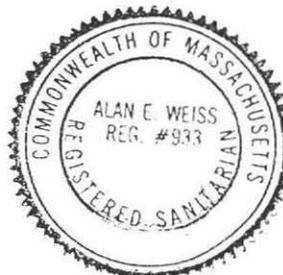
Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

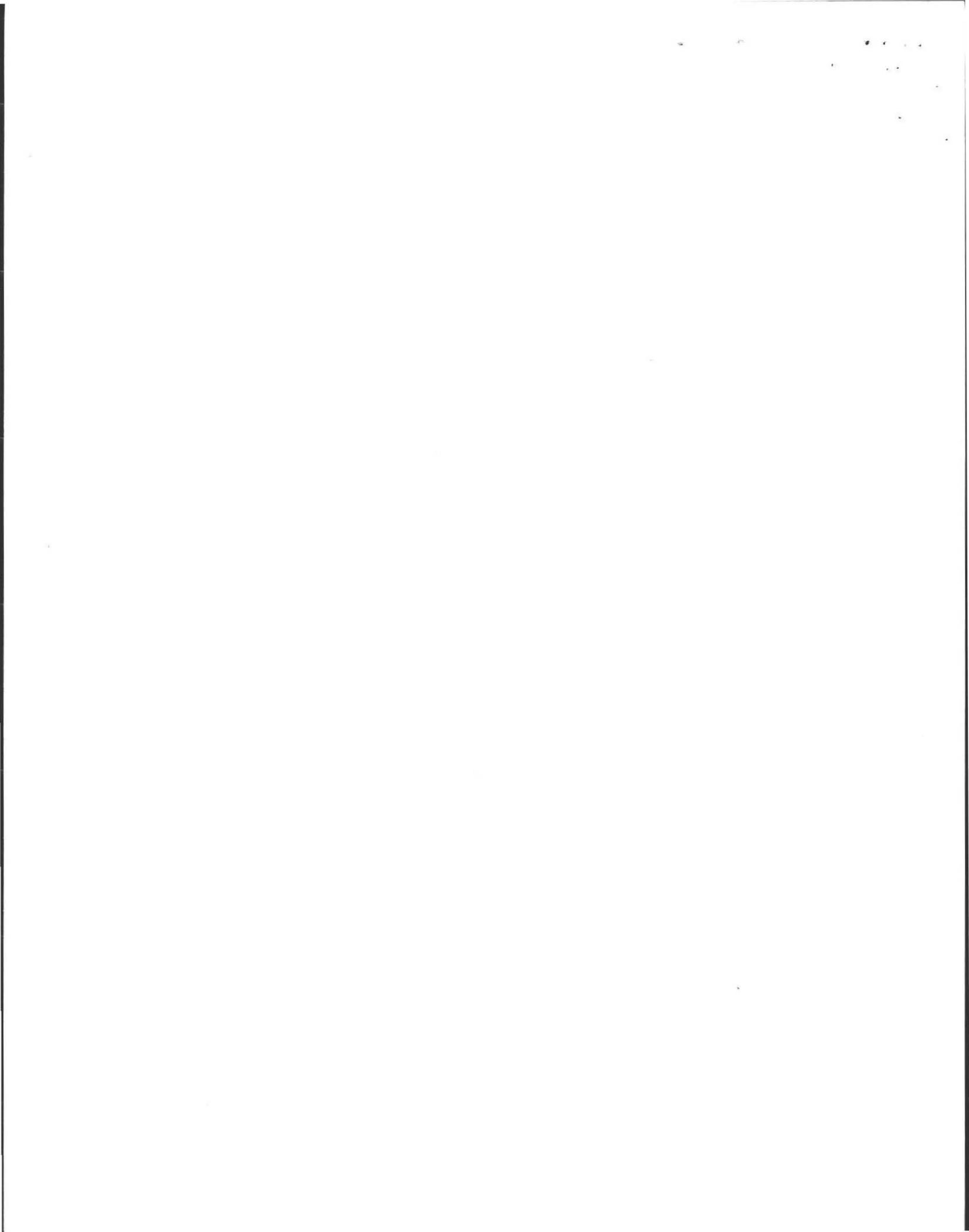
If not, what is the depth of naturally occurring pervious material? \_\_\_\_\_

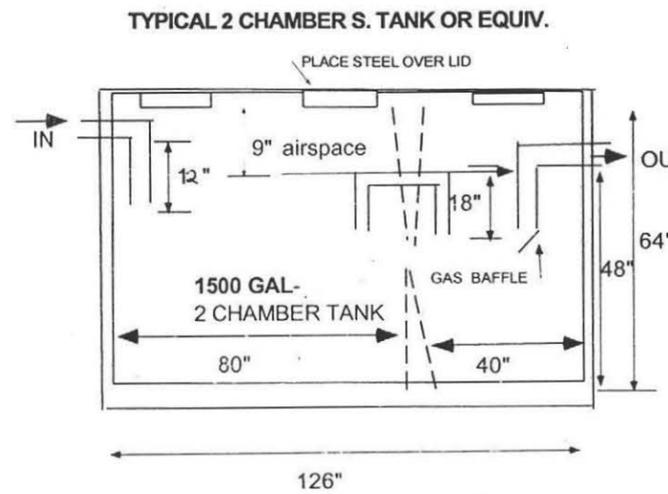
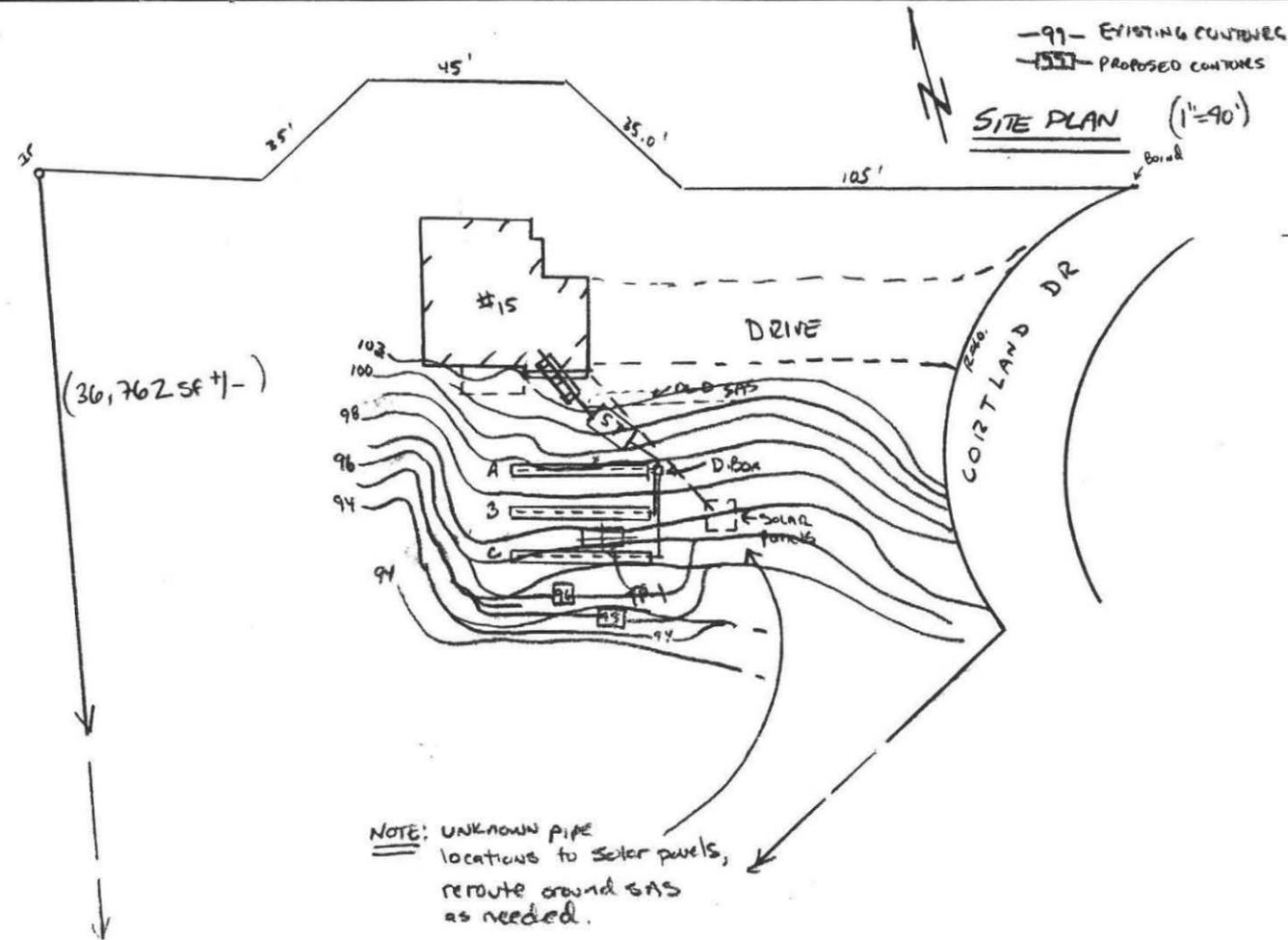
Certification

I certify that on June 95 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

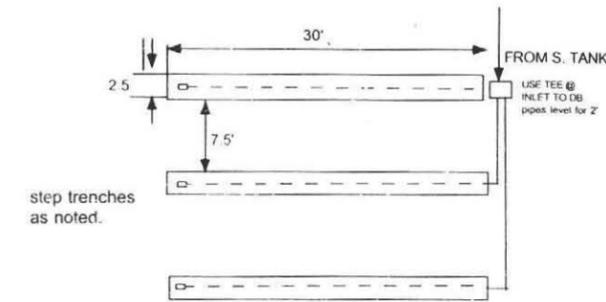
Signature Alan E. Weiss Date 10/08/98







- DESIGN NOTES:**
- 3 BR. x 110 gal/day x =330 gal./day
  - Use THREE Leach Trenches: 30' long x 2.5' wide x 18" stone below invert.  
Bot. Area: 2.5' wide x 30' long x 3= 225sf.  
Side Area: 1.5' x 30' long x 2 x 3= 270 sf.  
Side Area 1.5'x 2.5' wide x 2 x 3= 22.5f  
Tot. Area: 517.5 sf x 0.74 gal.sf. = 382.5 gal./day.
  - NO GARBAGE DISPOSAL ALLOWED
  - ALL D. BOX OUTLET PIPES LEVEL FOR 2'; TEE AT D. BOX. INLET
  - NO WELLS WITHIN 150 FEET OF SYSTEM NOTED. (town water).
  - NO WETLANDS WITHIN 100 FEET OF SYSTEM NOTED
  - PRE & POST CONTOURS NOTED AS NECESSARY.
  - RESERVE AREA NOTED (BEWEEN TRENCHES).
  - SLOPE CALCS NOT APPLIC, REGRADE OVER TRENCHES AS NOTED.
  - PLACE (TITLE V STONE) OVER SUBGRADE AFTER LOAM REMOVED.
  - 2% MIN. SLOPE OVER SAS.
- DEEP HOLE TP-1 A. Weiss, R.S., Soil Eval. ON 10/9/98, PERCS by A. Weiss 44", RATE= <2 MIN./IN. "SAND", USE 5' SEPARATION



**TEST PIT LOGS**

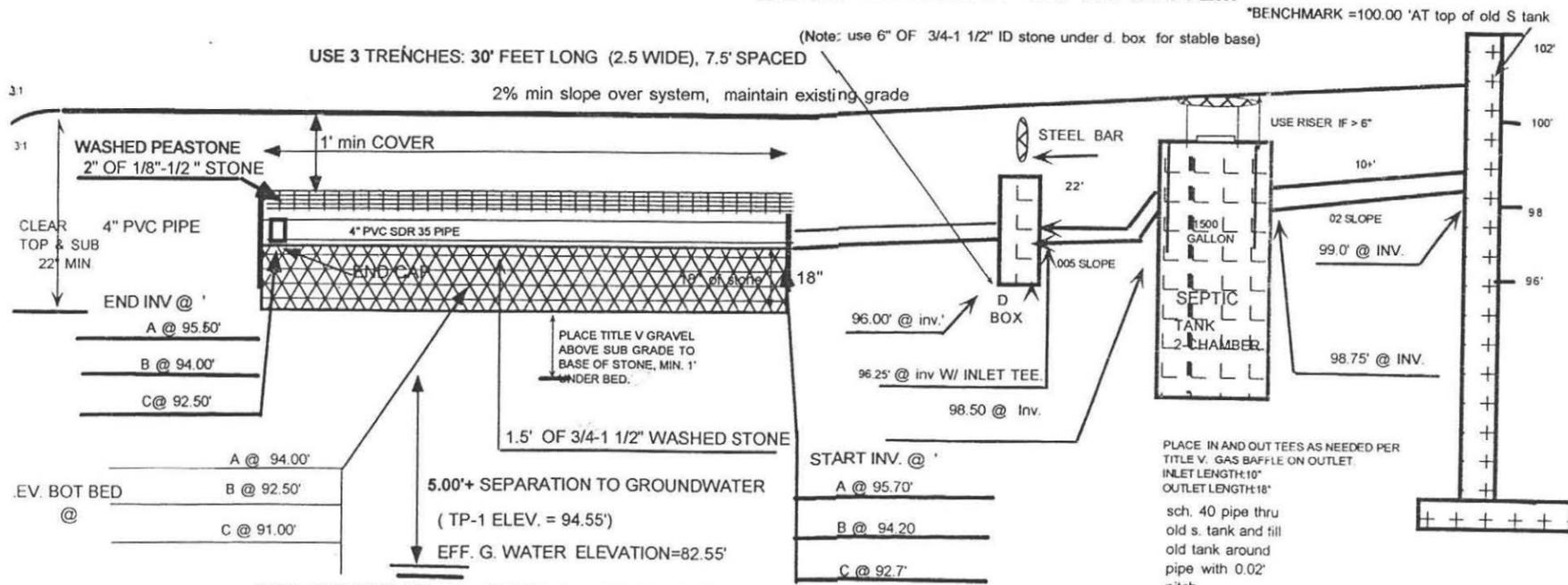
TP-1 ELEV. 94.55'

Depth	Soil Type	Notes
0-8" "A"	FINE SANDY LOAM	10 yr 3/3 "
8-22" "B"	FINE SANDY LOAM	10yr 6/8 "
22"-144" "C"	FINE TO MED. SAND (b)	10YR 6/4 loose MORE COARSE W/ DEPTH SOME COBBLES

NO OXIDES IN EITHER TEST PIT, NO SEEPS AND NO STATIC H2O, NO ROCK ESHWT @ BOT. OF HOLES=12'=144".

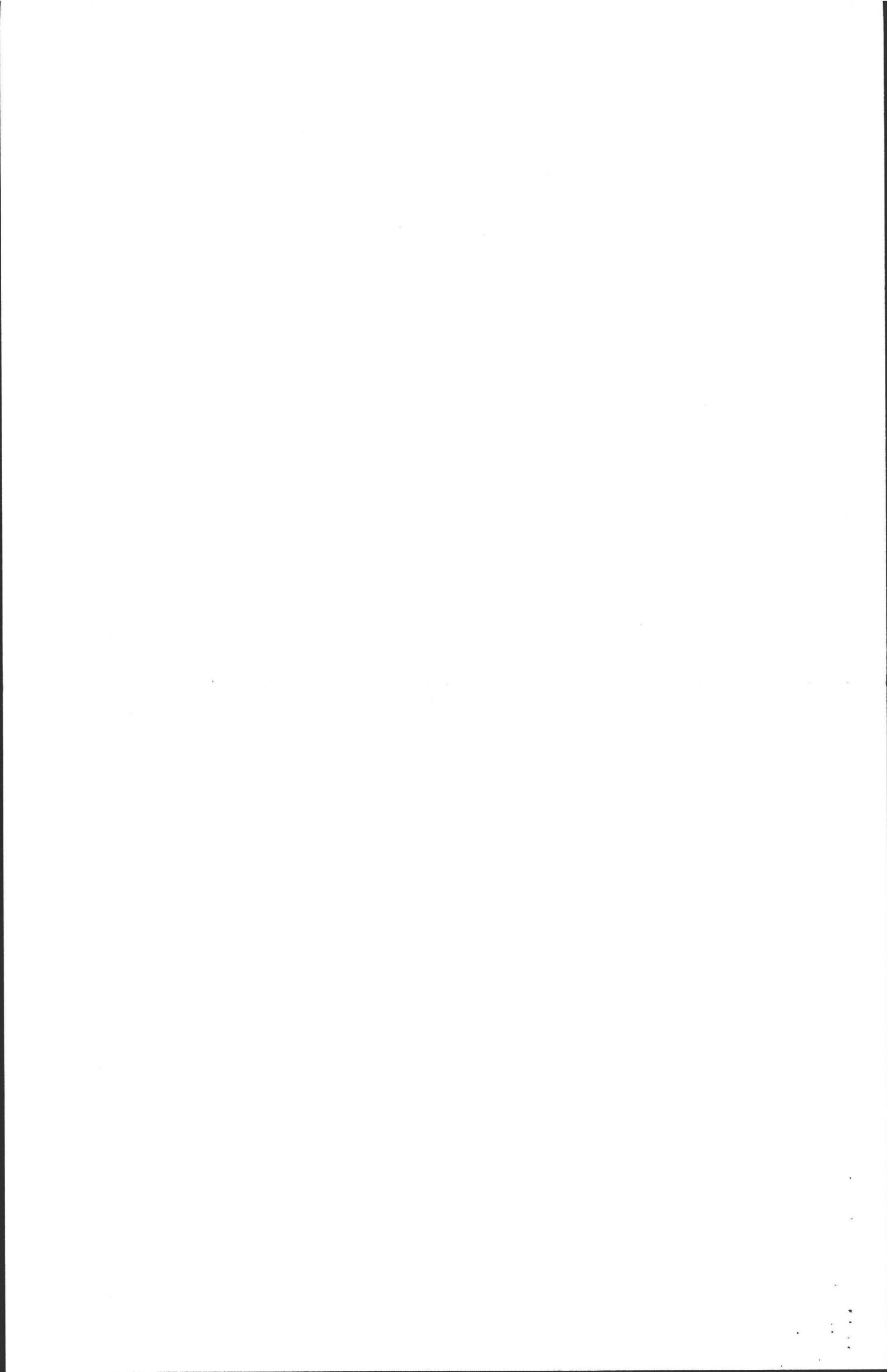


**CROSS SECTION OF SEPTIC SYSTEM**



**SEPTIC SYSTEM REPAIR PLAN FOR VLASTA GREENBIE**  
**15 CORTLAND DRIVE, AMHERST, MA.**

SCALE: <b>NOTED</b>	APPROVED BY:	DRAWN BY <b>AW</b>
DATE: <b>11/2/98</b>		REVISED
<b>COLD SPRING ENVIRONMENTAL, INC. 323-5957</b>		
		DRAWING NUMBER <b>98-991-1008</b>



Vlasta K.Greenbie

15 Cortland Drive, Amherst, Massachusetts 01002-3401 (413) 256-6144

Mr. David Zarozinski  
Amherst Inspection Services  
Town Hall  
Amherst, Ma 01002

November 6, 1998

Dear Mr. Zarozinski,

enclosed are the 4 copies of plans for the septic system repair and the required fee of \$160.

I am getting quite desperate to start (and finish) the job and will be very grateful for your help in processing the documents as soon as possible. Many thanks.

Sincerely,

*Vlasta K. Greenbie*  
Vlasta K. Greenbie

INSPECTION SERVICES  
TOWN HALL  
4 BOLTWOOD AVENUE  
AMHERST, MA 01002

INSPECTION SERVICES  
TOWN HALL  
4 BOLTWOOD AVENUE  
AMHERST, MA 01002

1944

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No. \_\_\_\_\_

Date: 10-8-98

Commonwealth of Massachusetts  
Massachusetts  
Soil Suitability Assessment for On-site Sewage Disposal

Performed By: Alan Weiss  
Witnessed By: David Zarowski

Date: 10-8-98

Location Address or Lot #  New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	Owner's Name, Address, and Telephone # <u>BARRIE GREENBIE</u> <u>15 CORTLAND RD</u> <u>256-6144</u>
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Office Review

Published Soil Survey Available: No  Yes

Year Published \_\_\_\_\_ Publication Scale \_\_\_\_\_ Soil Map Unit \_\_\_\_\_

Drainage Class \_\_\_\_\_ Soil Limitations \_\_\_\_\_

Surficial Geologic Report Available: No  Yes

Year Published \_\_\_\_\_ Publication Scale \_\_\_\_\_

Geologic Material (Map Unit) \_\_\_\_\_

Landform \_\_\_\_\_

Flood Insurance Rate Map:

Above 500 year flood boundary No  Yes

Within 500 year flood boundary No  Yes

Within 100 year flood boundary No  Yes

Wetland Area:

National Wetland Inventory Map (map unit) \_\_\_\_\_

Wetlands Conservancy Program Map (map unit) \_\_\_\_\_

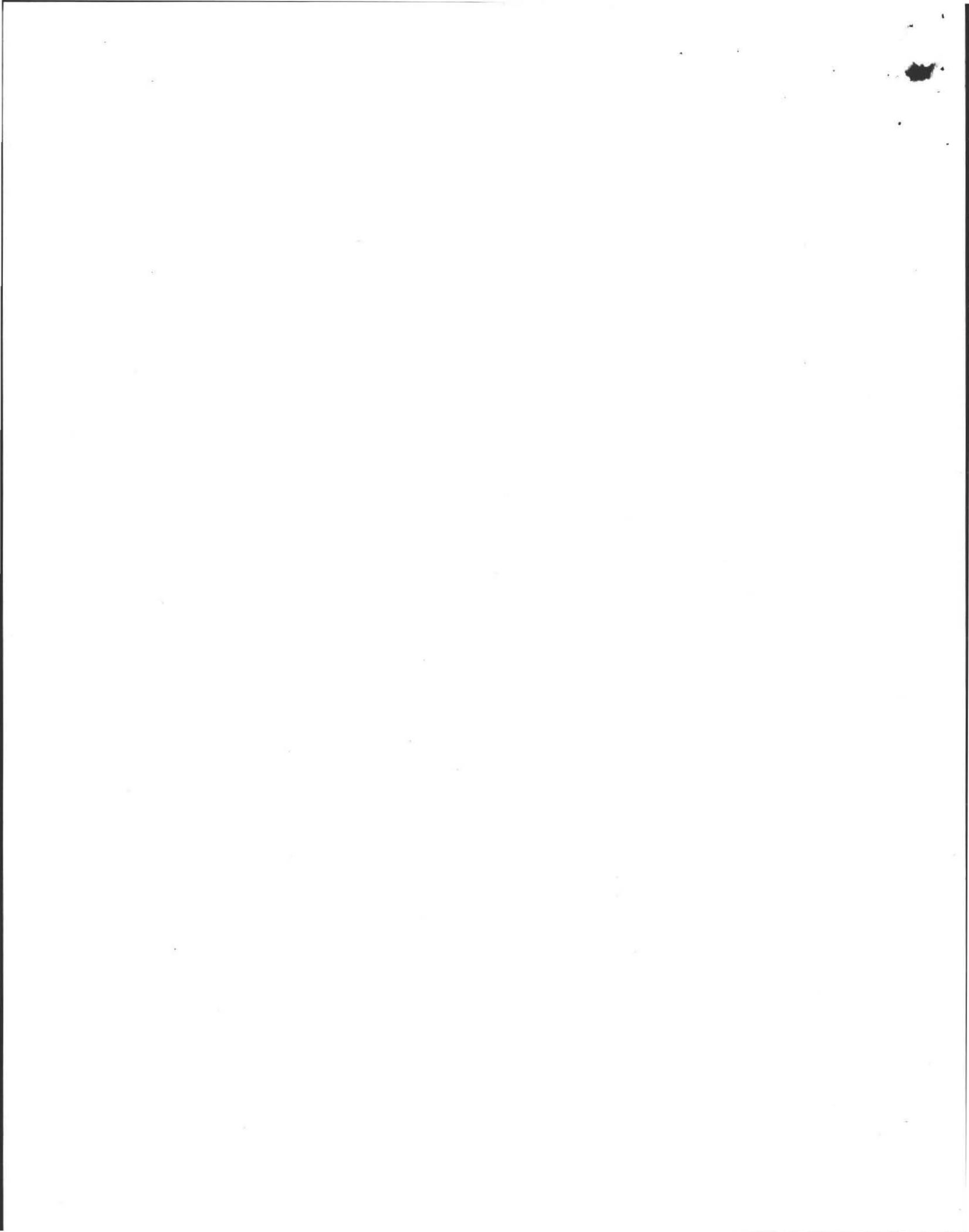
Current Water Resource Conditions (USGS): Month \_\_\_\_\_

Range :Above Normal  Normal  Below Normal

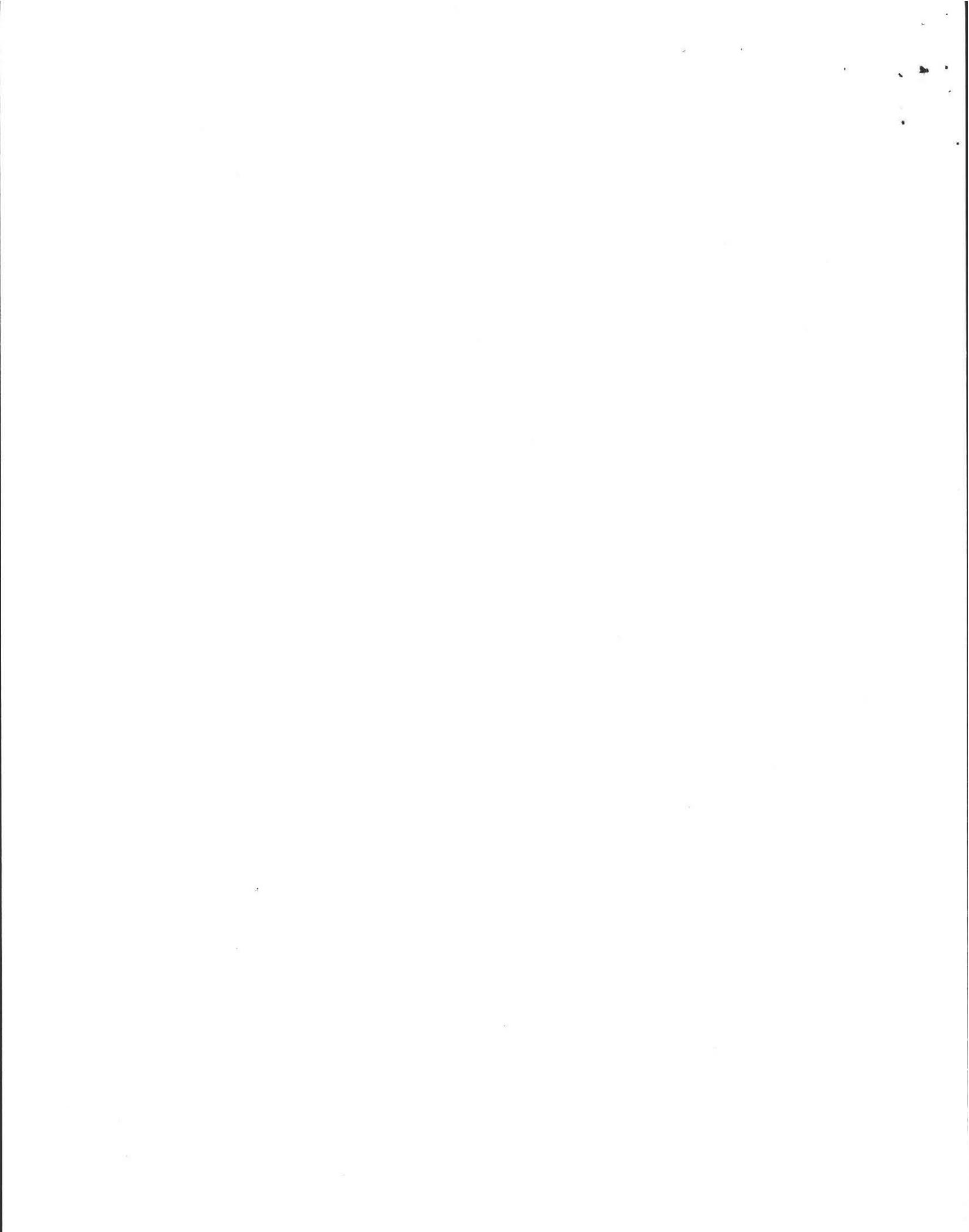
Other References Reviewed: \_\_\_\_\_



*Handwritten notes:*  
NOT PAID 10-8-98  
PAID 11-10-98  
JZ







Location Address or Lot No. \_\_\_\_\_

On-site Review

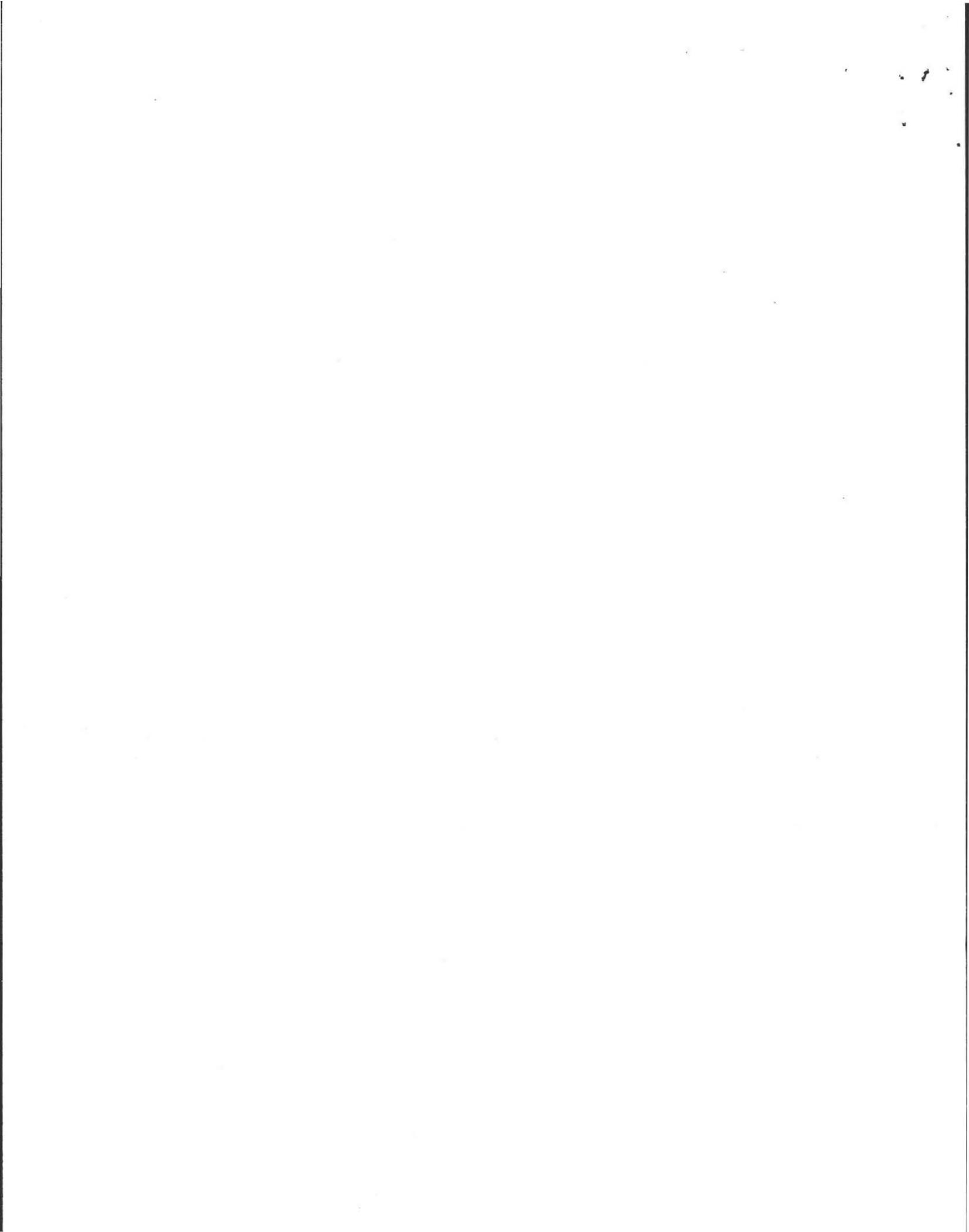
Deep Hole Number \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Weather \_\_\_\_\_  
 Location (identify on site plan) \_\_\_\_\_  
 Land Use \_\_\_\_\_ Slope (%) \_\_\_\_\_ Surface Stones \_\_\_\_\_  
 Vegetation \_\_\_\_\_  
 Landform \_\_\_\_\_  
 Position on landscape (sketch on the back) \_\_\_\_\_  
 Distances from:  
 Open Water Body \_\_\_\_\_ feet Drainage way \_\_\_\_\_ feet  
 Possible Wet Area \_\_\_\_\_ feet Property Line \_\_\_\_\_ feet  
 Drinking Water Well \_\_\_\_\_ feet Other \_\_\_\_\_

DEEP OBSERVATION HOLE LOG*					
Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)

\* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) \_\_\_\_\_ Depth to Bedrock: \_\_\_\_\_  
 Depth to Groundwater: Standing Water in the Hole: \_\_\_\_\_ Weeping from Pit Face: \_\_\_\_\_  
 Estimated Seasonal High Ground Water: \_\_\_\_\_





Location Address or Lot No. 15 Courtland Rd

COMMONWEALTH OF MASSACHUSETTS

, Massachusetts

Percolation Test*		
Date: <u>10-8-98</u>		Time: <u>8:00 AM</u>
Observation Hole #		
Depth of Perc		
Start Pre-soak		
End Pre-soak	<u>CANT HOLD</u>	
Time at 12"	<u>UNTESTED</u>	
Time at 9"		
Time at 6"		
Time (9"-6")		
Rate Min./Inch	<u>less than 2.</u>	

\* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

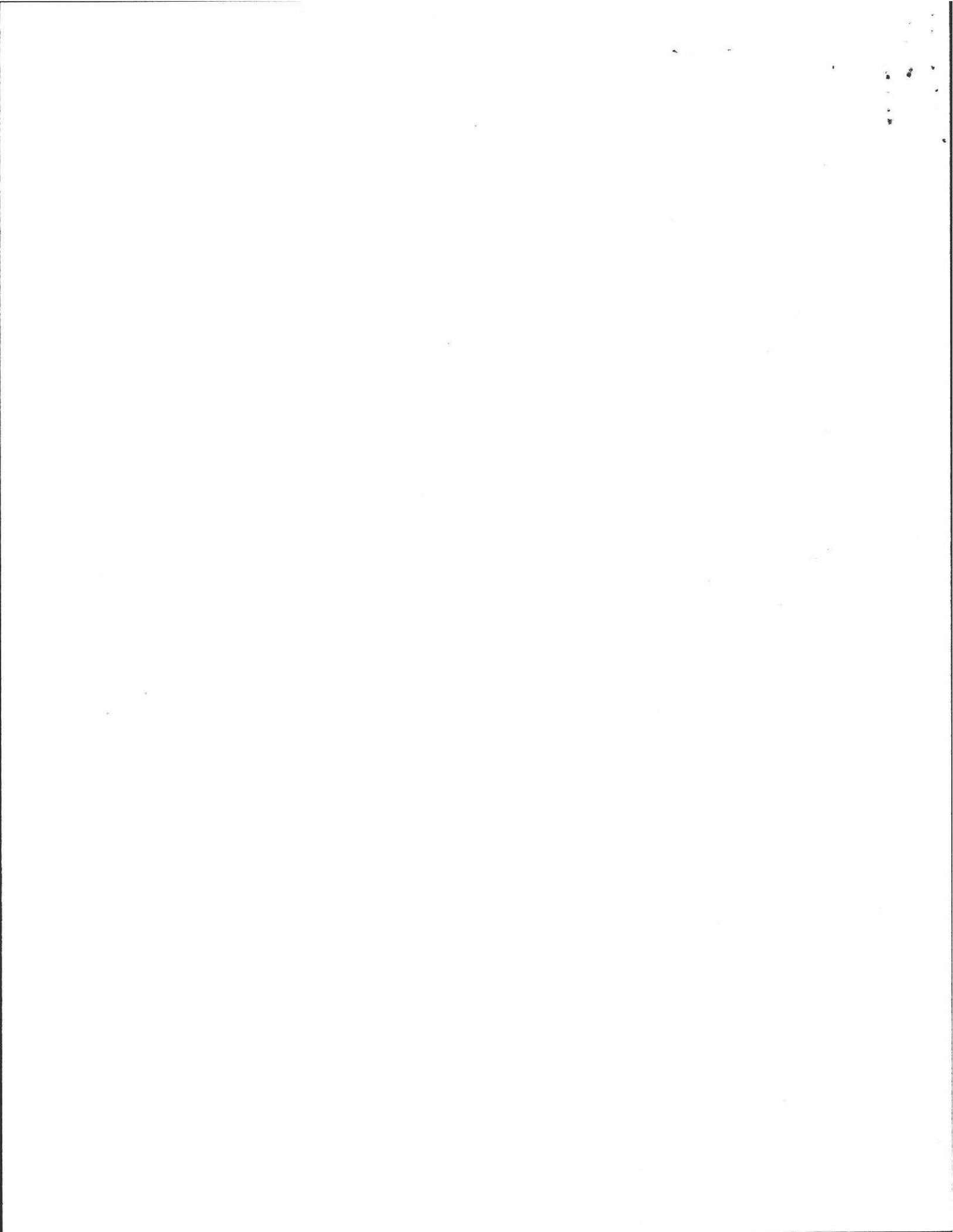
Site Passed  Site Failed

Performed By: ALAN WENIS

Witnessed By: DAVID ZARUWITZ

Comments: \_\_\_\_\_





**Town of Amherst  
Inspection Services  
Septic System and Tank Location Pictures**

Name: **Vlasta K. Greenbie**

Date: **11/10/98**

Address: **15 Cortland Drive Amherst, MA. 01002**

Phone: **(413) 256 - 6144**

Existing Tank: **New 1500 gals**

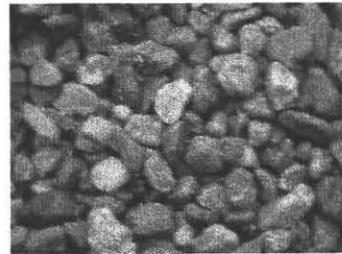
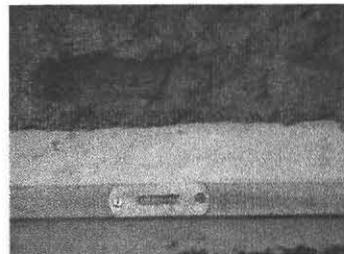
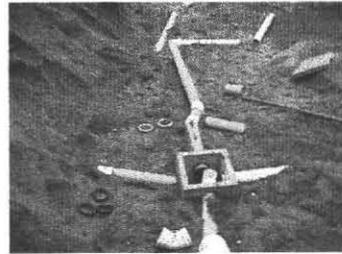
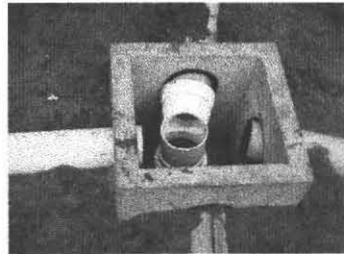
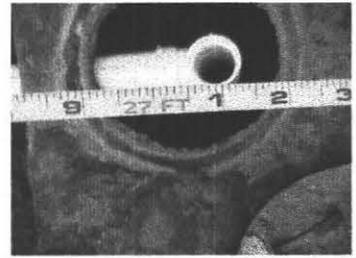
Installer: **Karl's**

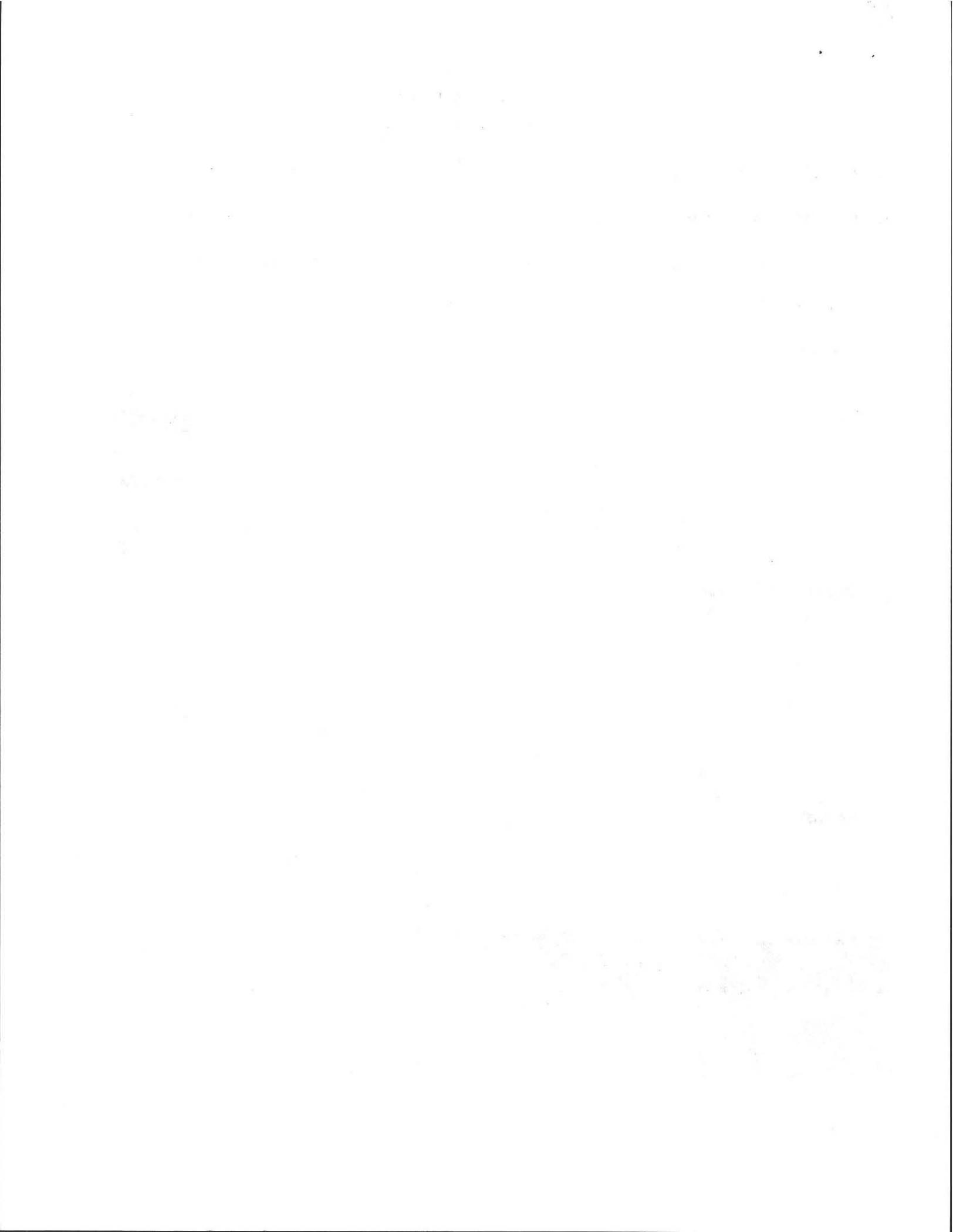
Engineer/Designer's: **Alan E. Weiss**

Tank Location: **27 feet 1" off garage**

"D" Box Location: **42 feet off garage**

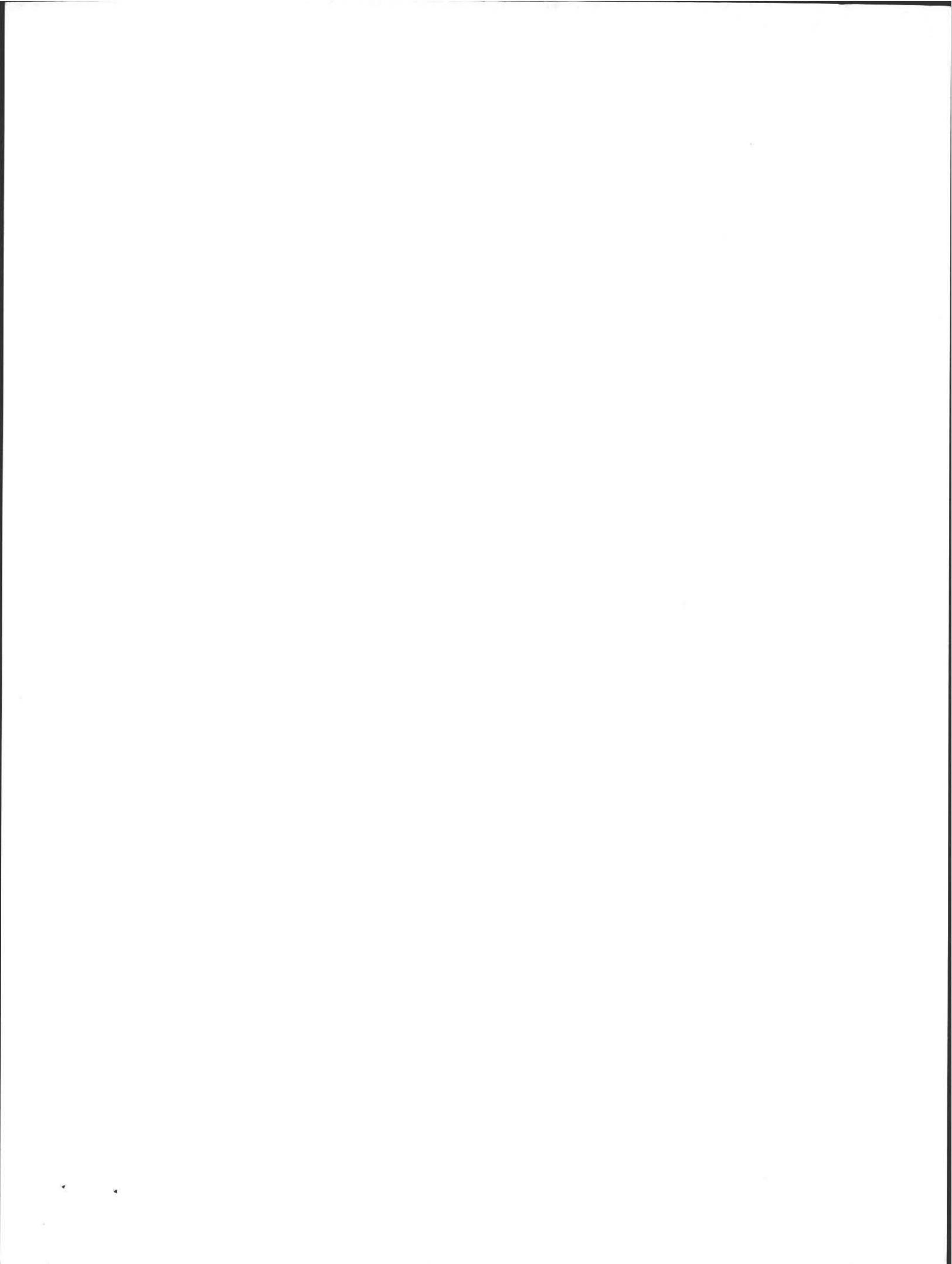
System Location:





P.

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100



HTIN

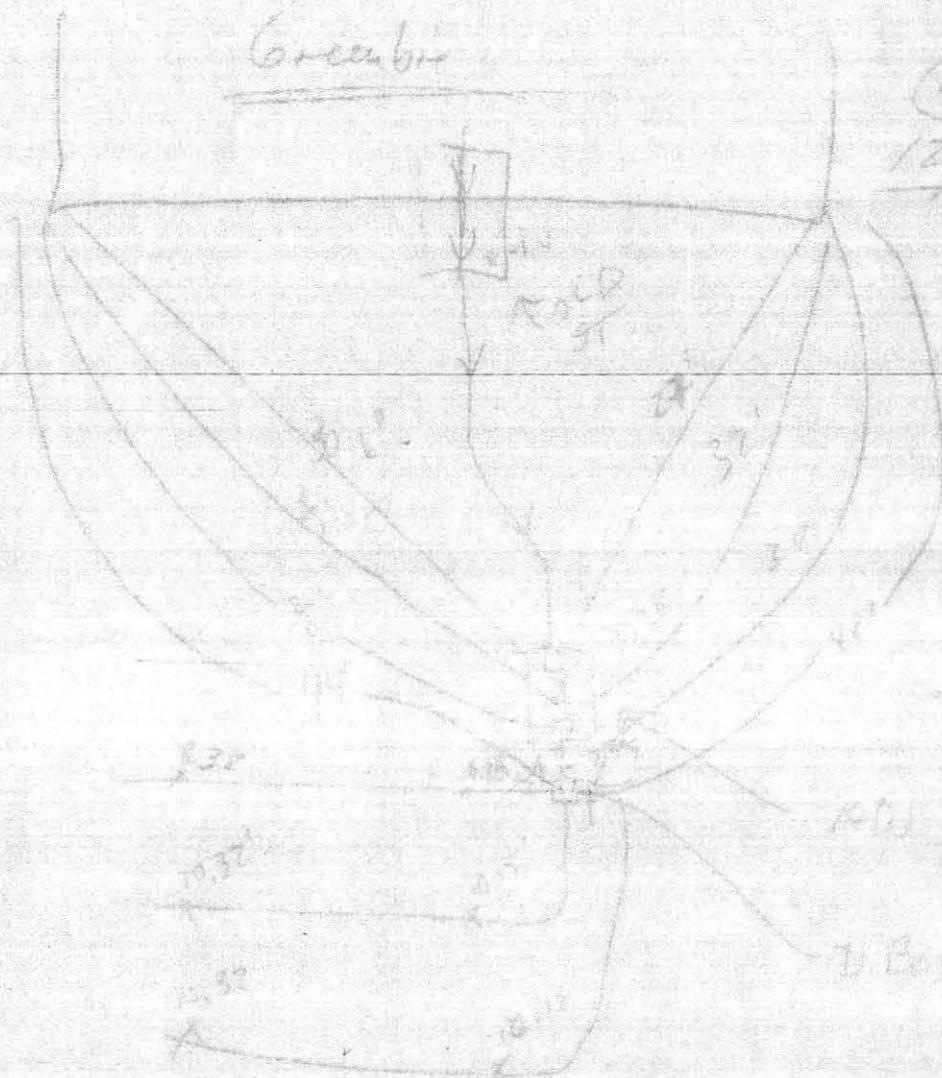
DAVE + MIKE

INSURANCE

Greenbriar

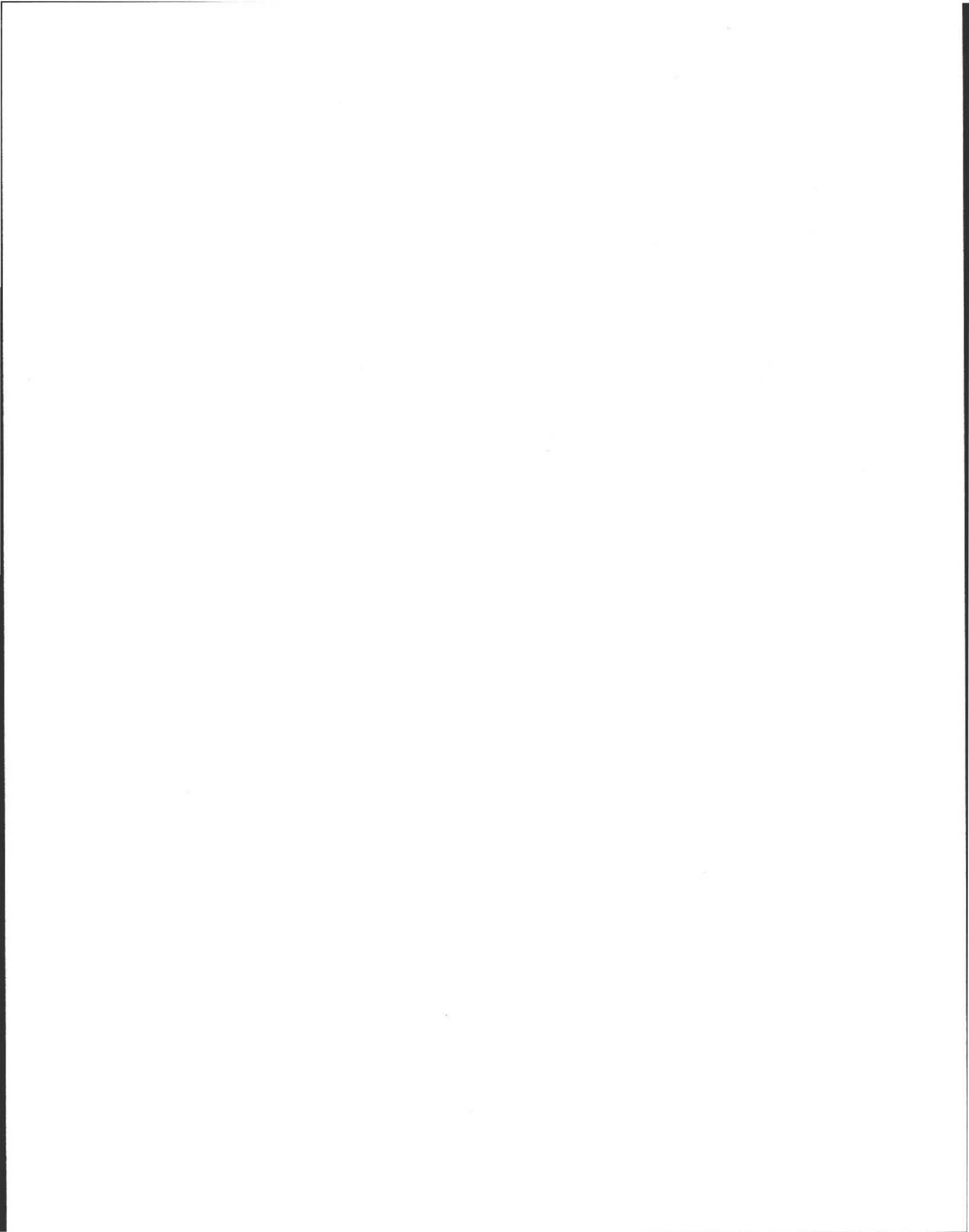
(Signature)

12/24/98



1500 sq ft / 1/2 acre lot  
 17' wide, 2' high area  
 fill grass

OLD SPRING  
 ENVIRONMENTAL INC.  
 35 OLYMPIAN RD.  
 BELT TOWN MA 01807



Town of



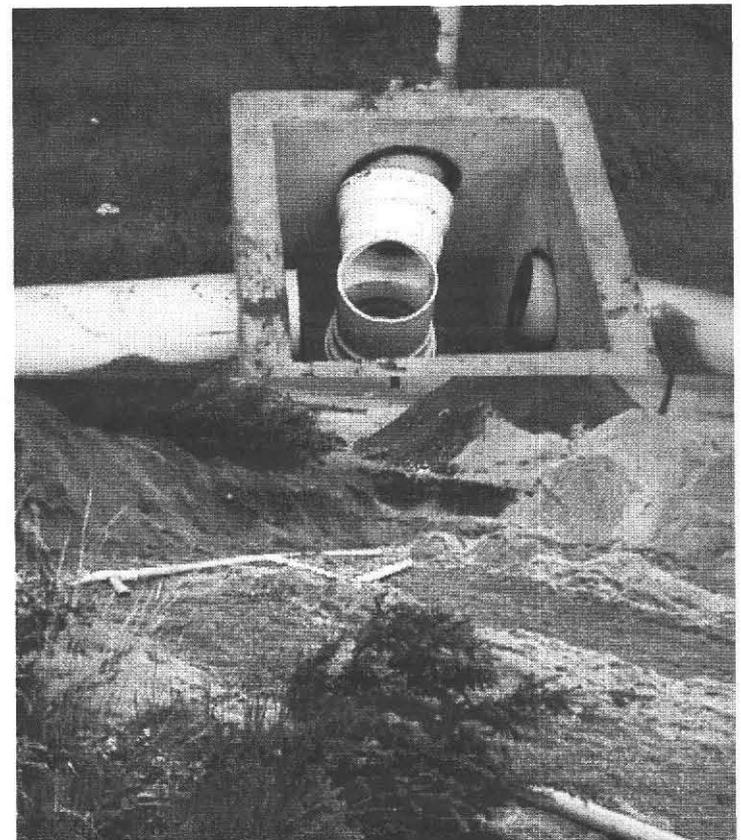
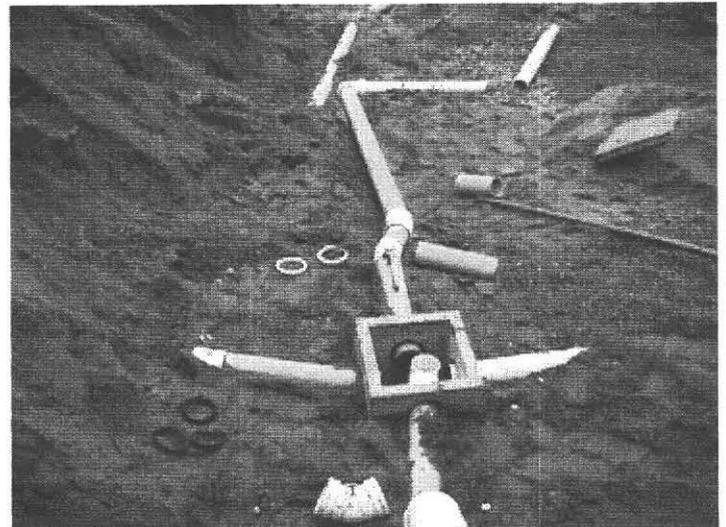
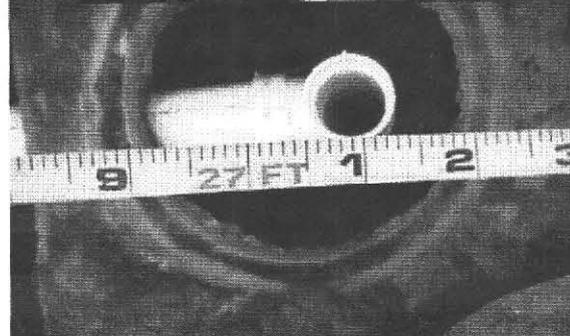
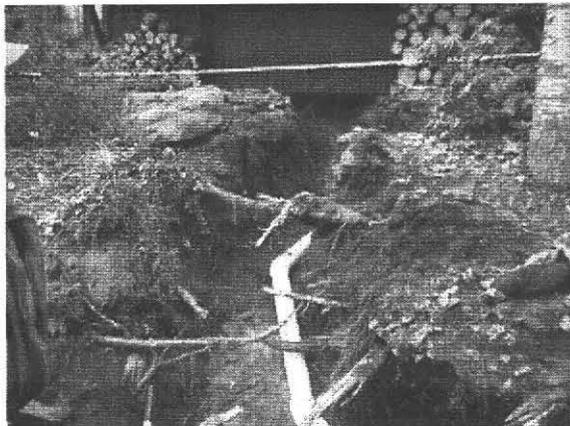
AMHERST

Massachusetts

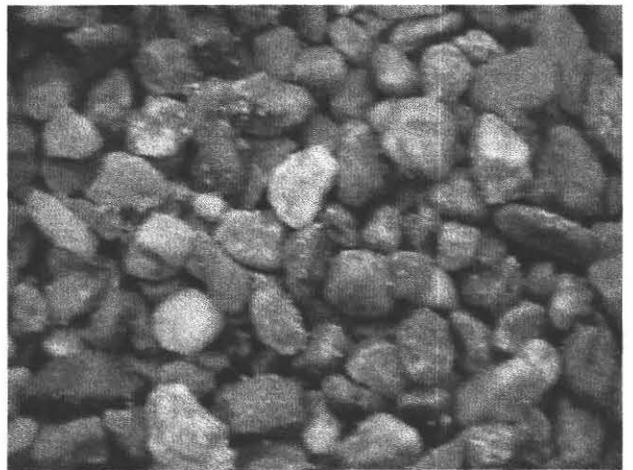
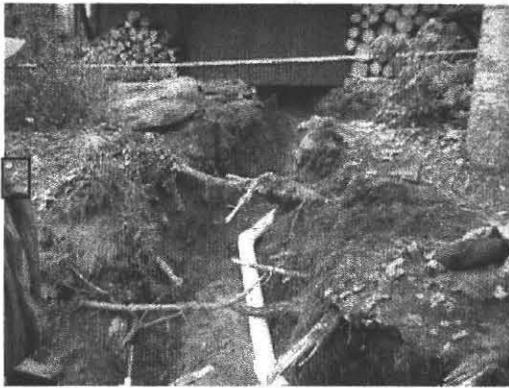
TOWN HALL  
4 BOLTWOOD AVENUE  
AMHERST, MA. 01002-2351

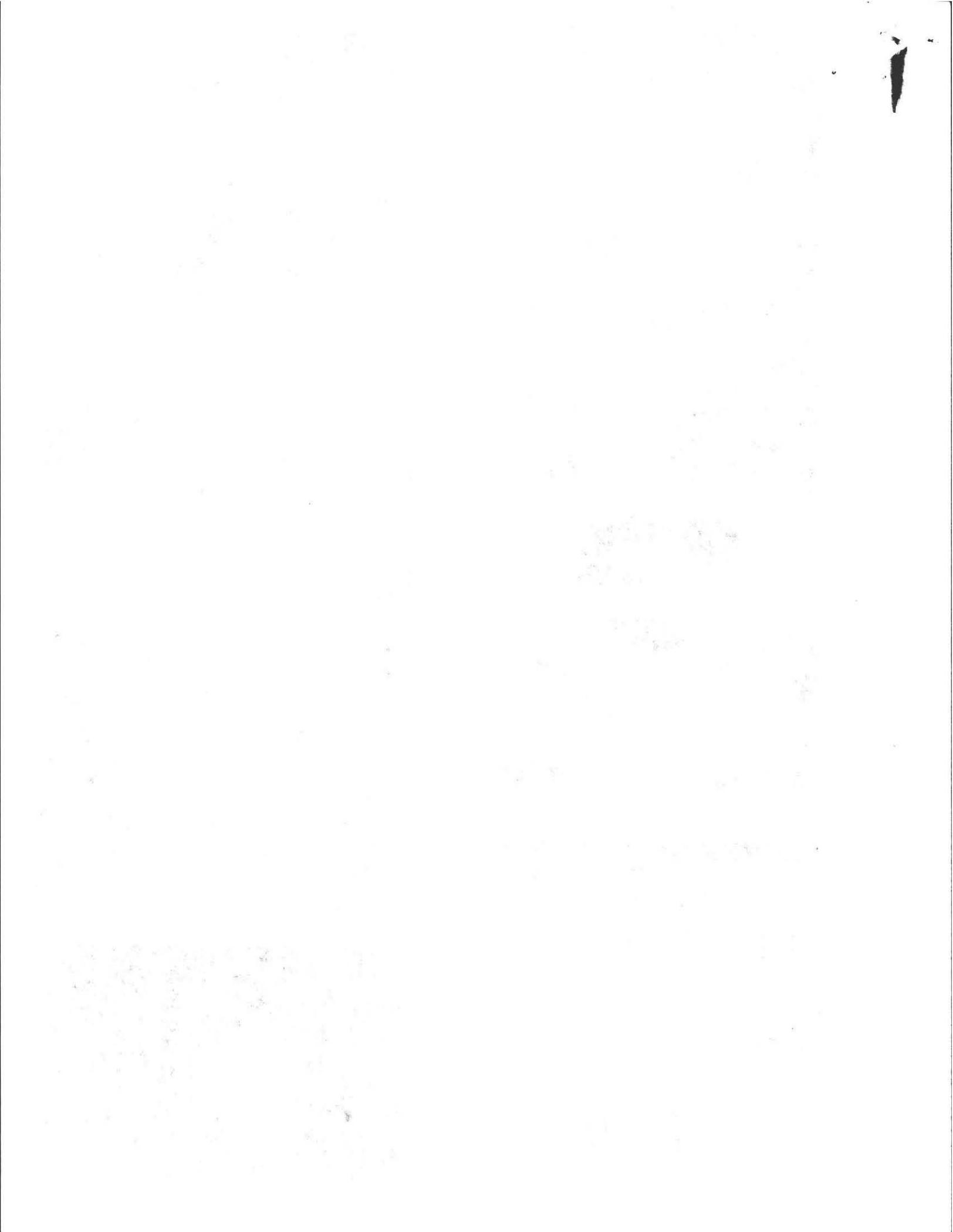
INSPECTION SERVICES DEPARTMENT  
Fax (413) 256-4041  
Phone (413) 256-4030

**Septic System and Tank Location for  
15 Cortland Drive 12/21/98. The tank  
is 27 feet 1 inch from the corner of the  
garage.**









256-6144

BOARD OF HEALTH, AMHERST, MASSACHUSETTS  
APPLICATION FOR DISPOSAL WORKS CONSTRUCTION PERMIT

No. 72-8 Date April 13, 1972 Fee \$3.00 Date Rec'd. ~~4/13/72~~ 4/14/72 By P.F.

Application is hereby made for a permit to Construct () or Repair ( ) an Individual Sewage Disposal System at:

Location—Address 15 COURTLAND DRIVE (LOT 2) or Lot No. 2

Owner B. B. GREENBIE Address 2 SUTTON CT. AMHERST

Contractor A. MARTIN BEAULT Address \_\_\_\_\_

Type of Building S.F. HOME Dimensions 34' X 32' Size Lot 38,000 ± SF.

Dwelling—No. of Bedrooms 2 Expansion Attic () Garbage Grinder ()

Other WASHING MACHINE B.W. No. of persons 2 Showers (1)

Other fixtures 2 BATHS: 1 WITH SHOWER, 1 WITH TUB.

Town Water? Yes Type of Well \_\_\_\_\_

Design Flow \_\_\_\_\_ gallons per person per day, Total daily flow \_\_\_\_\_ gallons

Septic Tank—Liquid capacity 900 gallons Dimensions: L \_\_\_\_\_ W \_\_\_\_\_ D \_\_\_\_\_

Disposal Trench—No. \_\_\_\_\_ Width \_\_\_\_\_ Total Length \_\_\_\_\_ Total leaching area \_\_\_\_\_ sq. ft.

Disposal Bed—No. 1 Diameter 10425 Depth below inlet \_\_\_\_\_ Total leaching area 250 sq. ft.

Dry Well—No. 1 Diameter 6 Depth below inlet 8 Dimensions: 6 x 8 x 8 320

Other: Distribution box ( ) No. \_\_\_\_\_ Dosing tank ( ) \_\_\_\_\_

(Depth of Soil Line Below finished grade at foundation \_\_\_\_\_)

Percolation Test Results Performed by LHART & HUNTLEY ENGR. Date 3/28/72

Test Pit No. 1 1 minutes per inch Depth of Test Pit 2'-3"

Test Pit No. 2 \_\_\_\_\_ minutes per inch Depth of Test Pit \_\_\_\_\_

Description of Soil 10" TOPSOIL; 1'-5" GRAVEL Depth to Ground Water 10' +

Will disposal area be filled? No Cut down? No

(On reverse side or separate sheet, show plot plan with building. Include dimensions, distances from all boundaries. Show location of wells, streams, ledge, large trees, etc.)

AGREEMENT: The undersigned agrees to construct the afordescribed individual sewage disposal system in accordance with the provisions of Article XI of the Sanitary Code and regulations of the Amherst Board of Health. The undersigned further agrees not to place the system in operation until a Certificate of Compliance has been issued by this board of health.

Barrie B Greenbie 4-13-72  
Owner or builder date

Application Approved by [Signature]

Application Disapproved for the following reasons:

BOARD OF HEALTH, AMHERST, MASSACHUSETTS  
CERTIFICATE OF COMPLIANCE

THIS IS TO CERTIFY, That the individual Sewage Disposal System installed () or repaired ( ) by KARIS EXC at LOT 2, COURTLAND DR has been constructed in accordance with the provisions of

INSTALLER

Article XI of the State Sanitary Code as described in the application for Disposal Works Construction Permit No.

72-8 dated 3-14-72

The issuance of this certificate shall not be construed as a guarantee that the system will function satisfactorily.

DATE 7-20-72 Inspector [Signature]

BOARD OF HEALTH, AMHERST, MASSACHUSETTS  
DISPOSAL WORKS CONSTRUCTION PERMIT

No. 72-8

Permission is hereby granted B. B. GREENBIE to construct () or repair ( ) an Individual Sewage Disposal System at LOT #2 COURTLAND DR

as shown on the application for Disposal Works Construction Permit No. 72-8

This permit is issued with the understanding that future alterations or additions will be made if necessary. This permit shall not be construed as permission to create or maintain any sewage nuisance and in the issuance of this permit the Board of Health assumes no responsibility for the future operation or maintenance of the system.

DATE 4-14-72 Board of Health [Signature]

