

October 9, 2002

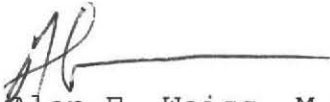
AMherst Board of Health

RE: Septic System Installation Inspection
550 Station Road (Residence)

On this date the writer inspected the installation of a **Soil Absorption System** (septic system). The writer found the installation to be complete (except for completion of cover material and final fill) and in compliance with our plans and 310 CMR 15.000. The installer representative (**Karls Excavating**) and my inspection noted that the system was built properly, in accordance with the state regulations and our plans.

Sincerely,

Cold Spring Environmental Consultants, Inc.


Alan E. Weiss, M.S., L.S.P.
President
Principal Hydrogeologist
Licensed Site Professional #6442
Registered Sanitarian #933

Cold Spring Environmental
350 Old Enfield Road
Belchertown, Ma. 01007

413-323-5957, phone
413-323-4916, fax



THE UNIVERSITY OF CHICAGO

1950

PHYSICS DEPARTMENT

PHYSICS 551 - QUANTUM MECHANICS

PROFESSOR R. H. COHEN

LECTURE NOTES

1950

1950

1

SUB-GRADE INSPECTION

Location: 550 STATION RD

Property Owner: MR. FITZ

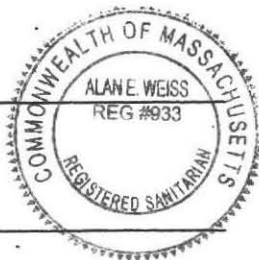
I certify that I have inspected the excavation to sub-grade of the proposed septic system leaching area prior placement of any fill or stone, or construction of any portion of the system.

I further certify that

1. All 'A' and 'B' horizon soils (topsoils and subsoils) were removed in the area of the system.
2. There was no evidence of ground water in the excavation.
3. There was no evidence of "mottles" that would be in conflict with the findings of the deep hole soil profile.
4. That the excavation was accomplished to the proper depth and in conformance with the approved plans.

Alan Weiss

Designer's Name



ALAN WEISS

Designers Signature

Street Address

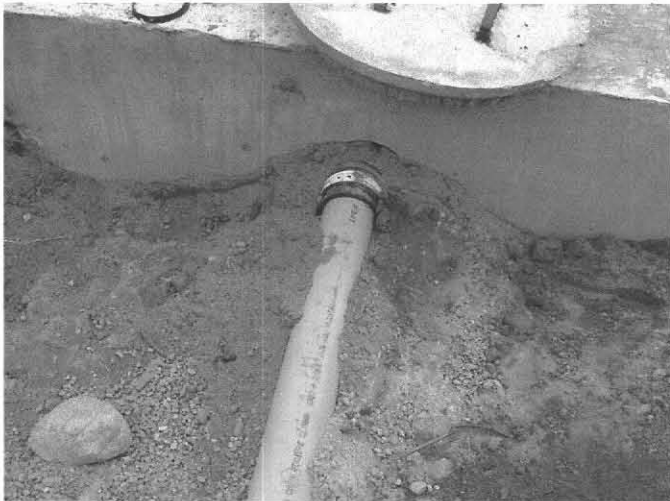
Town, State, Zip Code

323-5957
Telephone Number

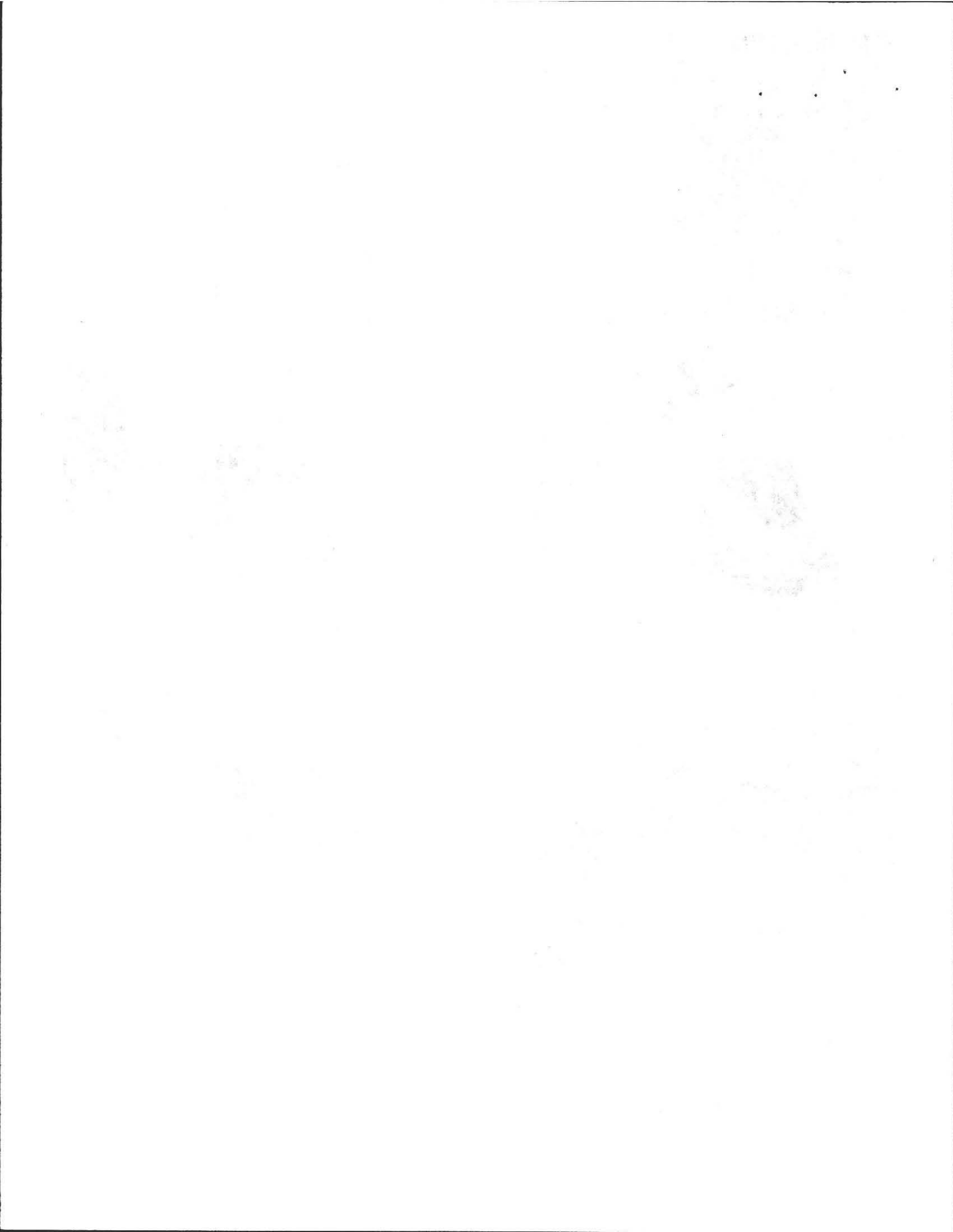
COLD SPRING
ENVIRONMENTAL, INC.
350 OLD ENFIELD RD.
BELCHERTOWN, MA 01007

100-100000-100000

THE UNIVERSITY OF MICHIGAN
ENVIRONMENTAL ACTION CENTER
300 CHURCH STREET
ANN ARBOR, MICHIGAN 48106-1300

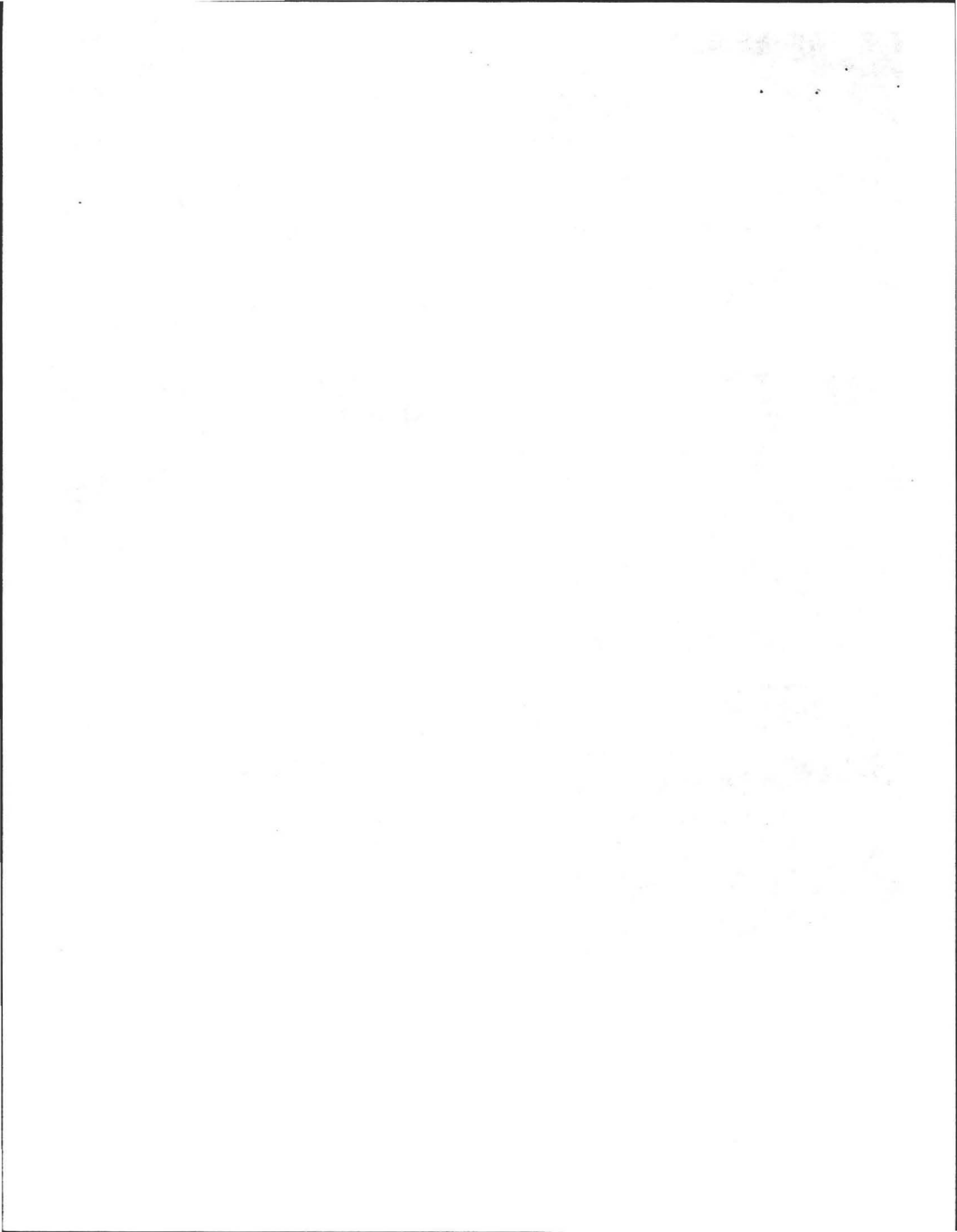


550 STATION RD





550 STATION RD (pg. 2)



No. 02-12

FEE 275
9/6/02

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

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

Location <u>550 Station Rd.</u>	Owner's Name <u>Fitz</u>
Map/Parcel#	Address <u>550 Station Road</u>
Lot# <u>550</u>	Telephone# <u>413-259-2900</u>
Installer's Name	Designer's Name <u>Alan Weiss, RS</u>
Address	Address <u>Belchertown, MA</u>
Telephone#	Telephone# <u>413-313-5957</u>



Type of Building _____ Lot Size 35,250 sq. ft.
 Dwelling - No. of Bedrooms (4) (Design for 5) Garbage grinder N
 Other - Type of Building _____ No. of persons _____ Showers (), Cafeteria ()
 Other Fixtures _____
 Design Flow (min. required) 110 gpd Calculated design flow 550 Design flow provided 592 gpd
 Plan: Date 8/6/02 Number of sheets 4 Revision Date _____
 Title Septic Repair Plan
 Description of Soil(s) Class I. sand
 Soil Evaluator Form No. _____ Name of Soil Evaluator A Weiss Date of Evaluation 5/16/02

DESCRIPTION OF REPAIRS OR ALTERATIONS New L. field.

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 [Signature] Date 8/6/02

Inspections _____

No. 02-12

FEE 275
10/1

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst Mass., MA.

CERTIFICATE OF COMPLIANCE

Description of Work: Individual Component(s) Complete System

The undersigned hereby certify that the Sewage Disposal System; Constructed (), Repaired (), Upgraded (), Abandoned ()
by: Karl S
at 550 Station Road

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. 02-12, dated _____ Approved Design Flow _____ (gpd)

Installer [Signature]
Designer: [Signature] Inspector: [Signature] Date: _____

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

No. 02-12

FEE 275
02

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct() Repair() Upgrade() Abandon() an individual sewage disposal system
at 550 Station Road as described in the application for
Disposal System Construction Permit No. 02-12, dated 8/6/02

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 8/6/02 Board of Health [Signature]



1875
JUL 13
1875

My dear Mother
I received your letter of the 10th and was
glad to hear from you. I am well and
hope these few lines will find you the same.
I have not much news to write at present.
I am still in the same place and
doing the same work. I hope to hear from
you again soon.

Yours affectionately
John Smith

1875
JUL 13
1875

Raw Test 175⁰⁰
Plan # F101100
275⁰⁰ pd c4 #539

No. _____

Date: 5/16/02

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

Performed By: Jon Beggs
Witnessed By: David Zarrinich

Date: 5/16/02

Location Address or Lot # <u>SM</u>	Owner's Name Address and Telephone # <u>JOAN HITCH 550 STATION ROAD 256-3254</u>
New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	

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)

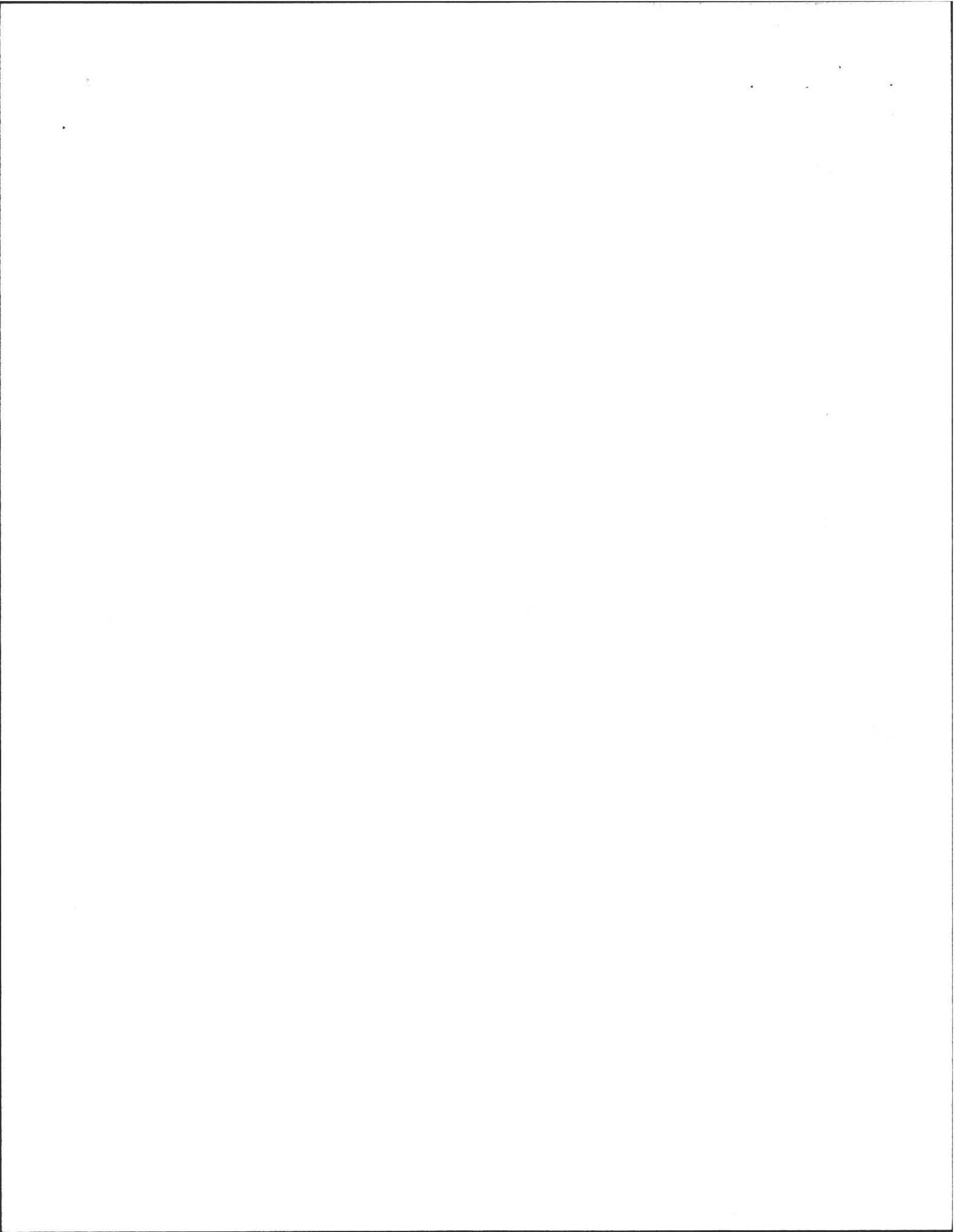
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range: Above Normal Normal Below Normal

Other References Reviewed: _____





Location Address or Lot No. 550 STATION RD

On-site Review

Deep Hole Number (1) Date: 5-16-02 Time: 9:30 Weather: Sunny 50°

Location (Identify on site plan) _____

Land Use Residential 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)
9	A	FSL	10YR 4/9	-	Loose granular
16	Bw	SL	10YR 5/6	-	"sand" stone
124	C	Fine Sand	2.5Y 5/4	-	Loose granular stone + gravel

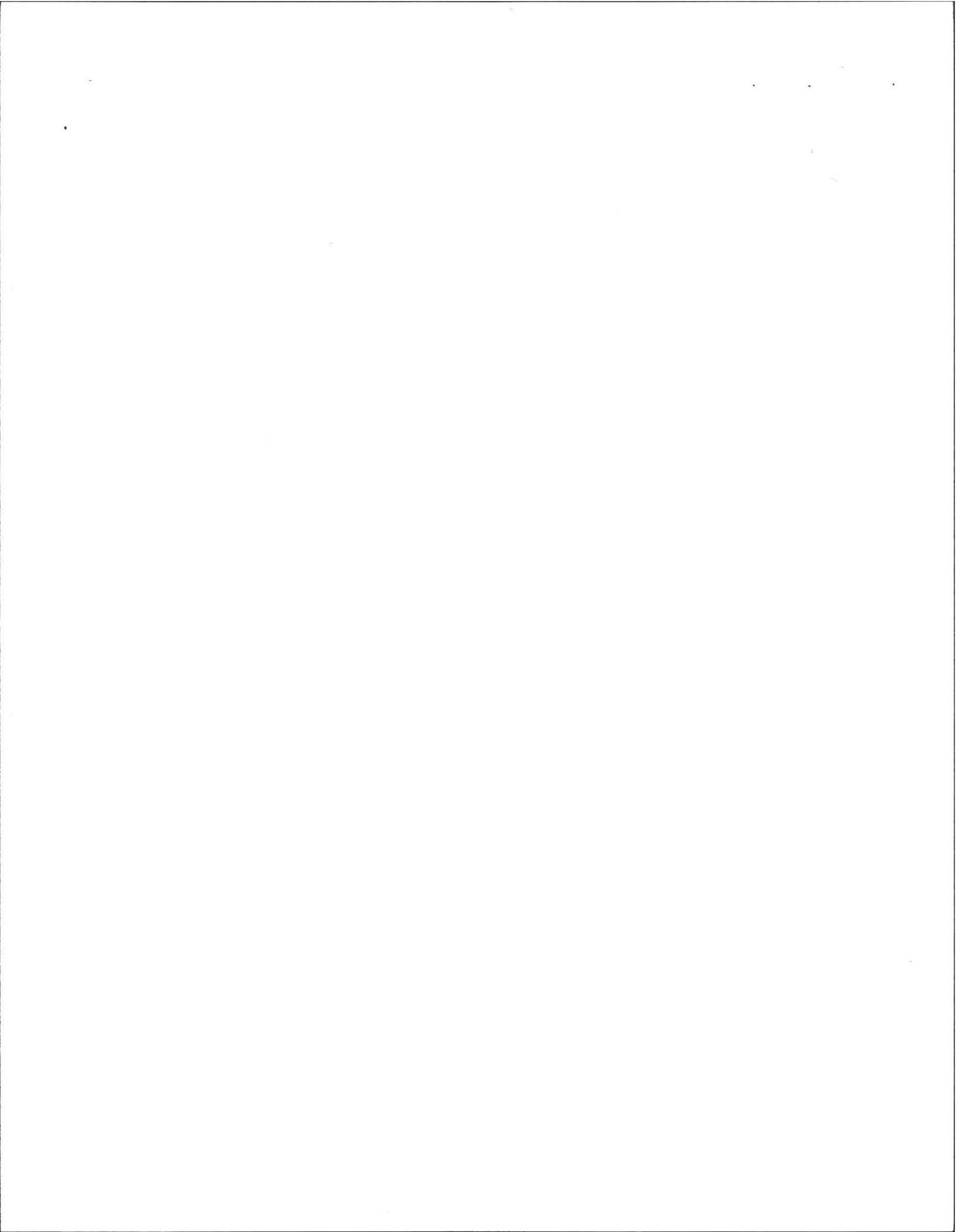
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) OUTC-AS1 Depth to Bedrock: 120'

Depth to Groundwater: Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 120' +

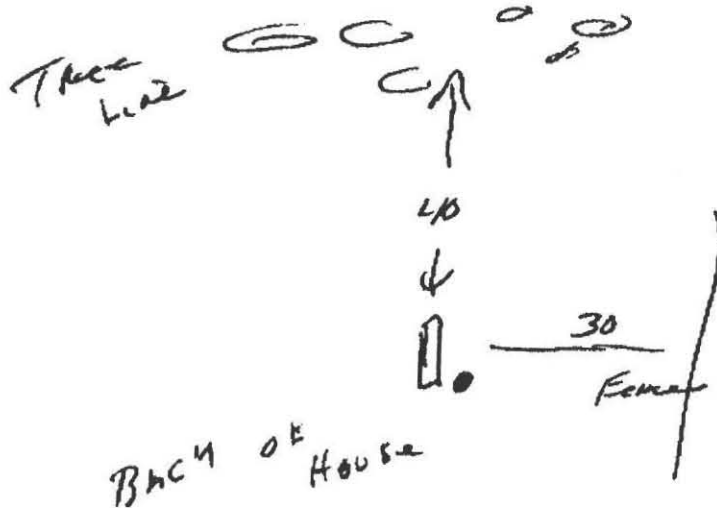




4 Bedrooms

FORM 12 Percolation Test
Location Address or Lot # 550 STATION ROAD

Commonwealth of Massachusetts
Town of Amherst



PERCOLATION TEST *

DATE: <u>5/16/62</u>		TIME:
Observation Hole #	<u>①</u>	
Depth of Perc	<u>42"</u>	
Start Pre-soak	<u>9:48</u>	
End Pre-soak	<u>9:55</u>	
Time at 12"	<u>used</u>	
Time at 9"	<u>24 gals</u>	
Time at 6"		
Time (9"-6")		
Rate Min./Inch		

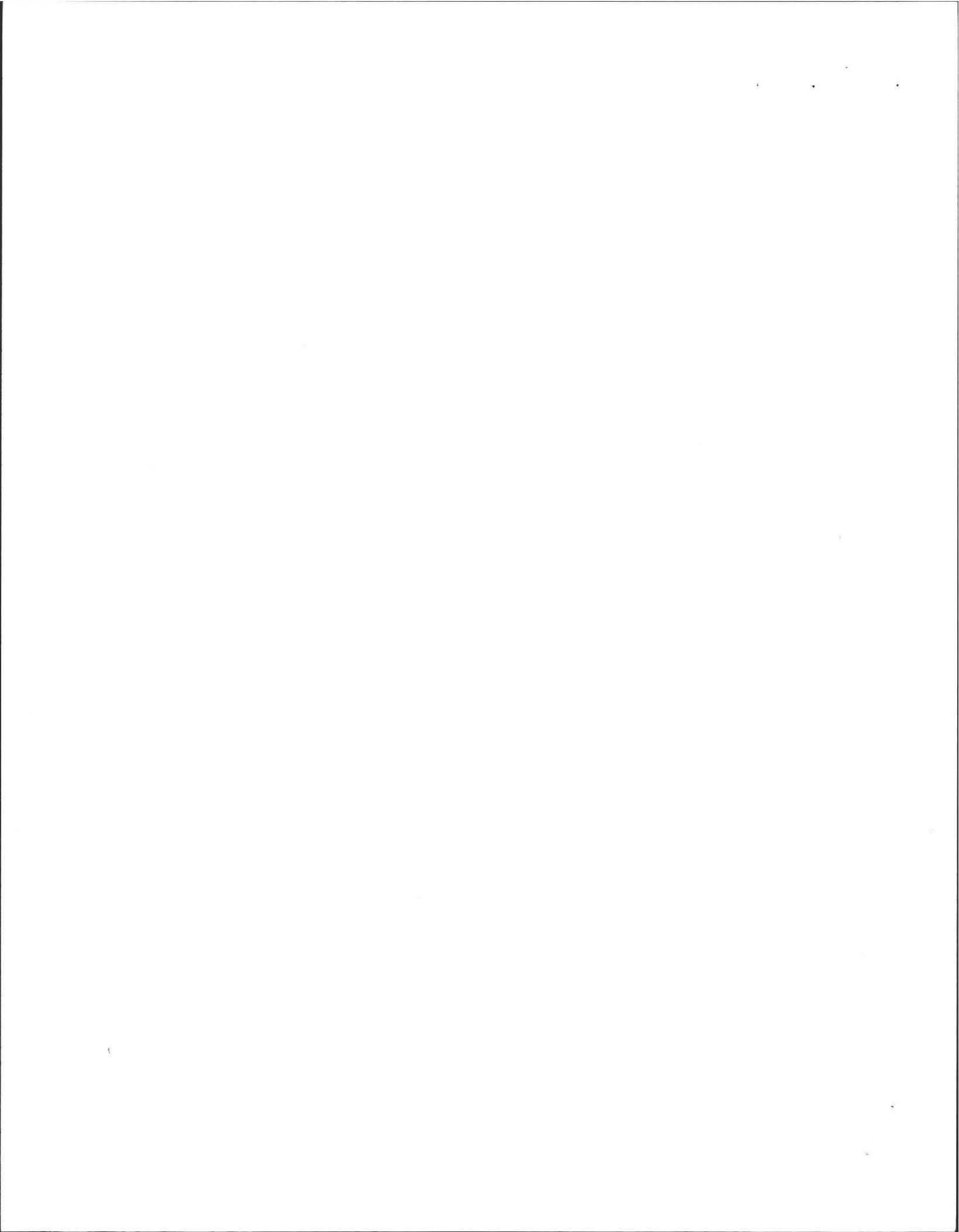
*Minimum of one percolation test must be performed in both the primary area and reserve area.

Site Passed Site failed

Performed by J. Rogers

Witnessed by David Zarnoch

Comments:



Soil Evaluator: J. Begg

Witness: D. Zarozinski

Date: May 16, 2002

Hole Name: Test Pit 1 Elevation 98.3'

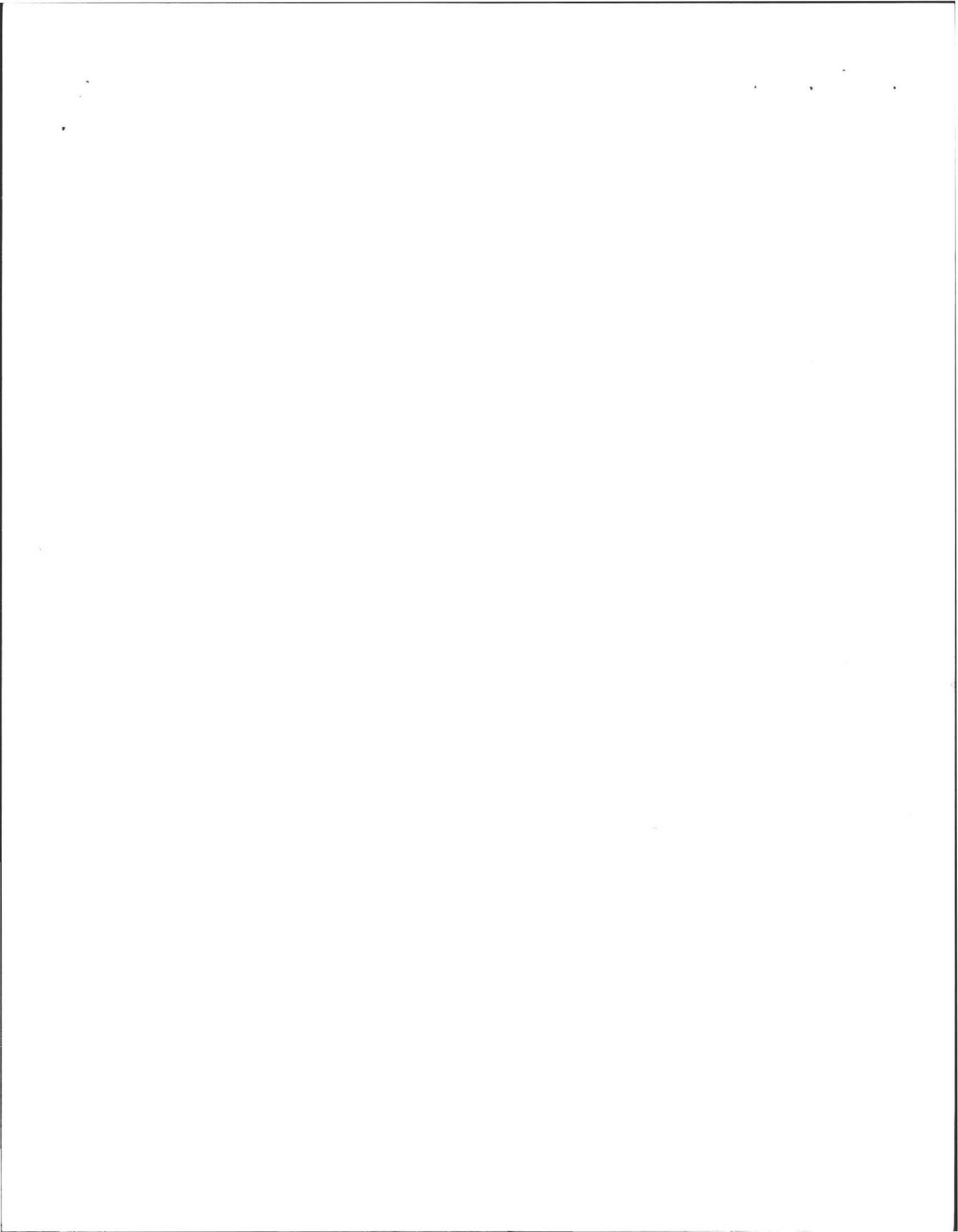
Depth	Horizon	Texture	Color	Mottles
0"-8"	Ap	sl	10YR 4/4	None
9"-16"	Bw	sl	10YR 5/6	None
16"-120"	C	fs	2.5Y 5/4	None

Estimated Seasonal High Water Table >120". Elevation on plan = 88.3'

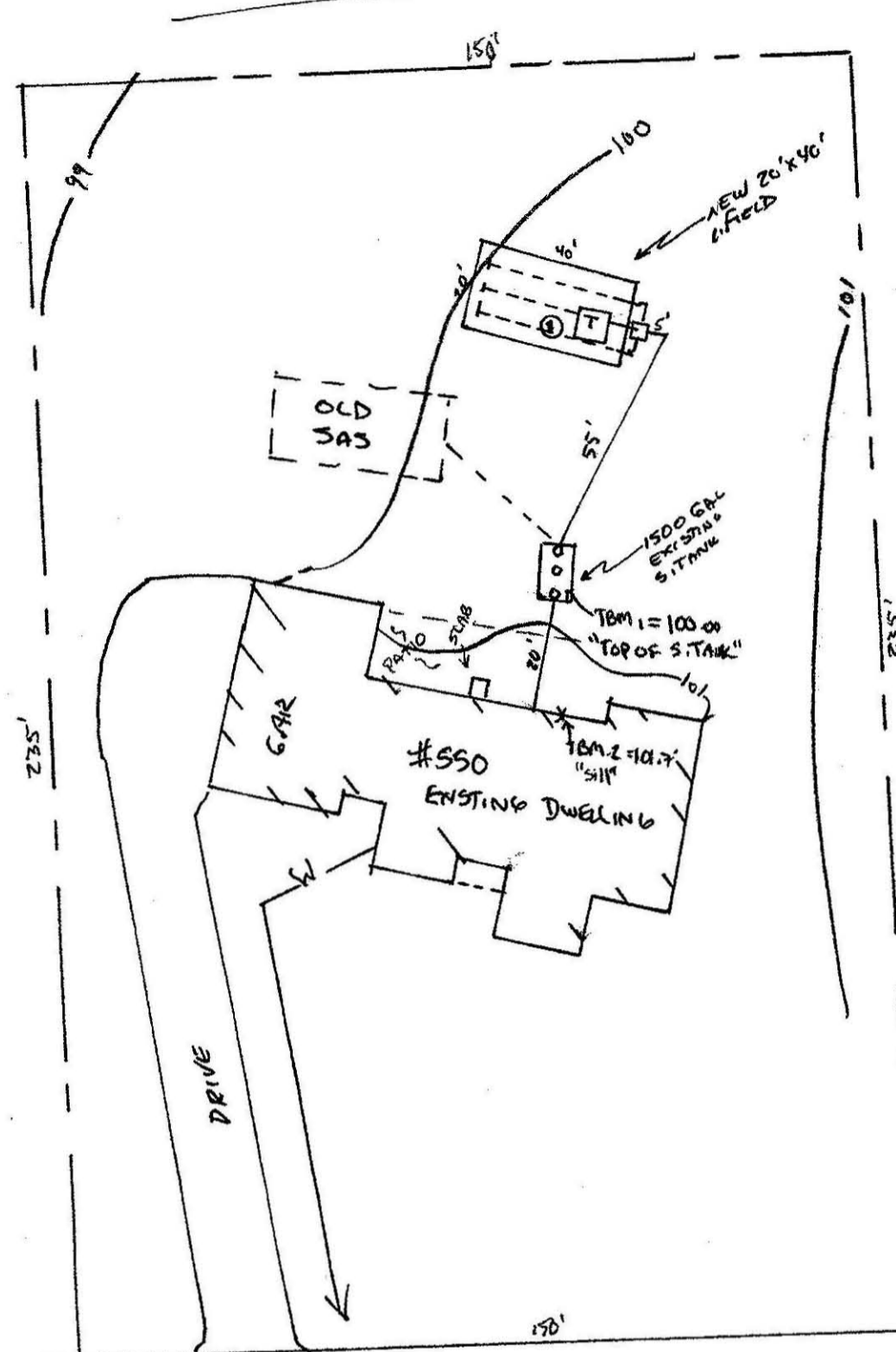
Percolation Rate <2 min/inch

4132539460

08/02/2002 17:15

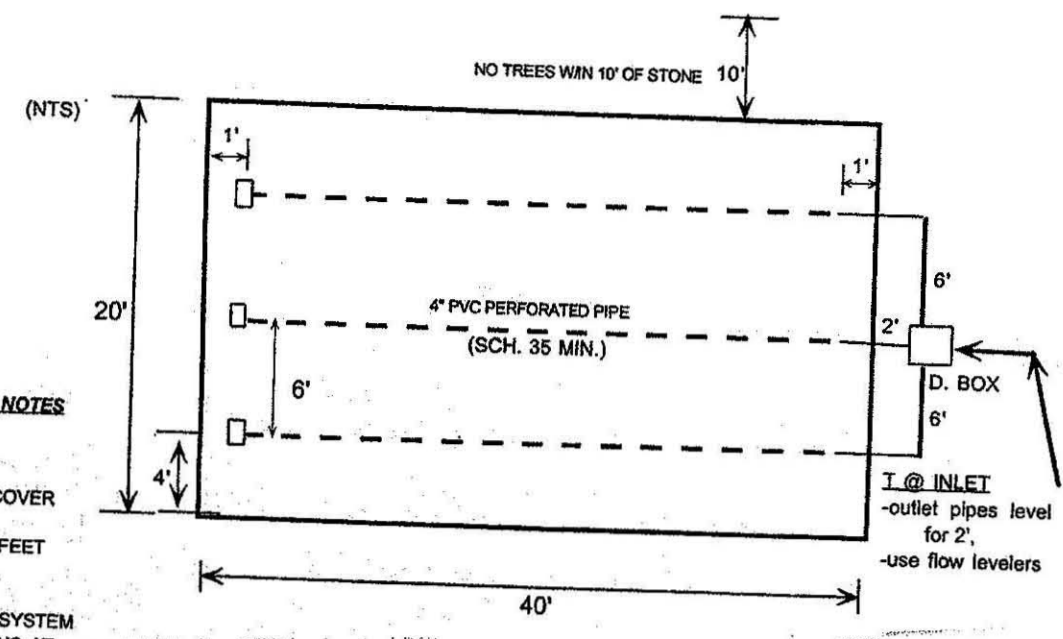


PLOT PLAN (1"=30')



STATION ROAD

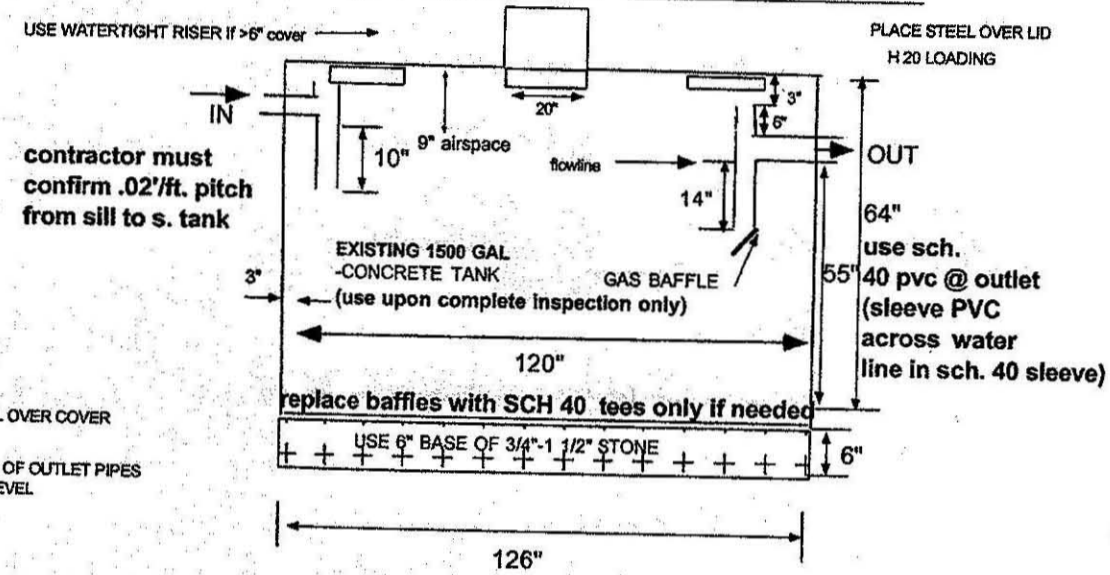
LEACH FIELD DIAGRAM



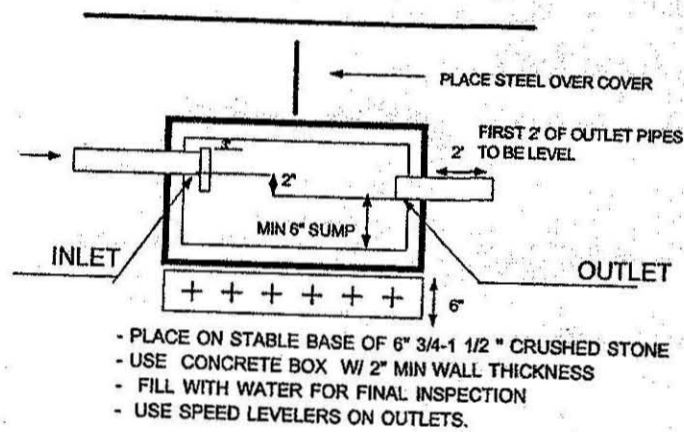
GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER:

- HAVE SEPTIC TANK PUMPED EVERY SECOND (2) YEARS.
- MAINTAIN AREA OVER SEPTIC AS GRASSY OR SIMILAR GROUND COVER ATTEMPTING TO MAXIMIZE SUNLIGHT TO AREA.
- DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 5 FEET OF LEACHFIELD.
- USE ONLY LIQUID DETERGENTS IN WASHER OR DISHWASHER.
- CONSERVE WATER WHEREVER POSSIBLE TO LENGTHEN LIFE OF SYSTEM.
- KEEP ALL RUNOFF DRAINS SUCH AS GUTTERS OR CURTAIN DRAINS AT LEAST 25 FEET FROM LEACHING FIELD.

TYPICAL EXISTING S. TANK OR EQUIV. (WATERTIGHT)



TYPICAL D. BOX (WATERTIGHT)



TEST PIT LOG

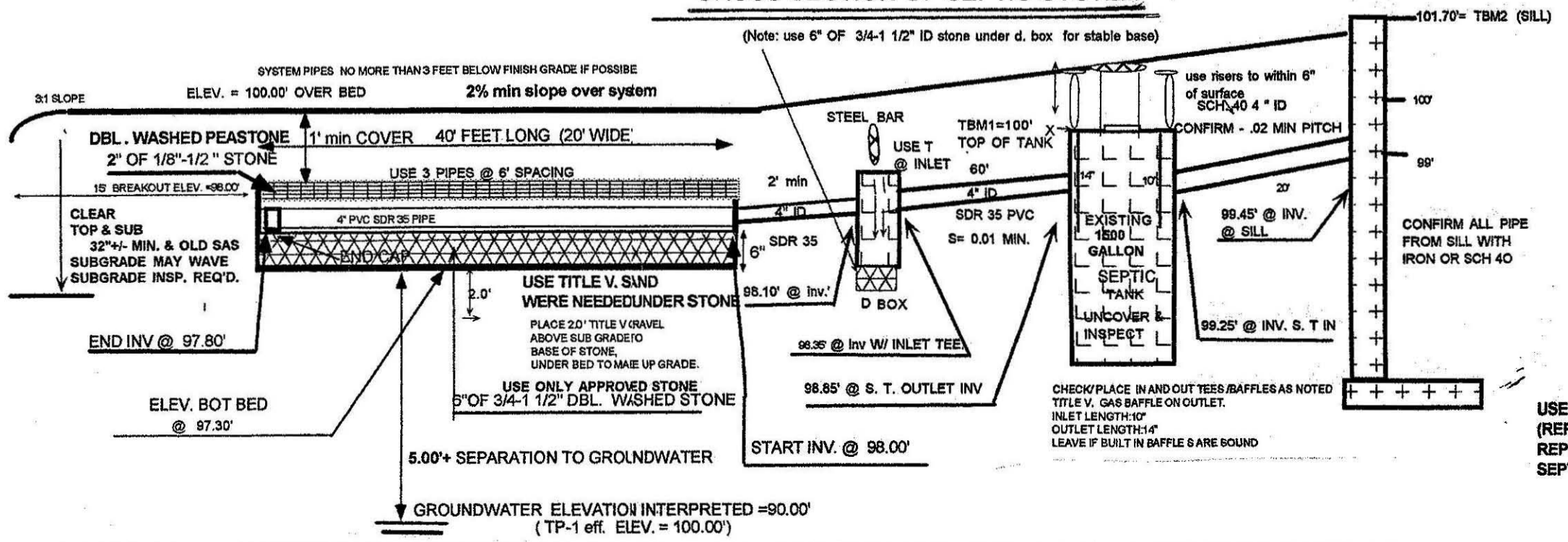
TP-1 EFF. EL. 100.0' EFF. ELEV.

0-9"	A	FINE SANDY LOAM, FRIABLE (10 YR 4/4)
9-16"	BW	SANDY LOAM, FRIABLE (10 YR 5/6)
16-120"	C1	GRANULAR LOOSE SAND AND GRAVEL (DELTAIC OUTWASH) (2.5 Y 5/4)

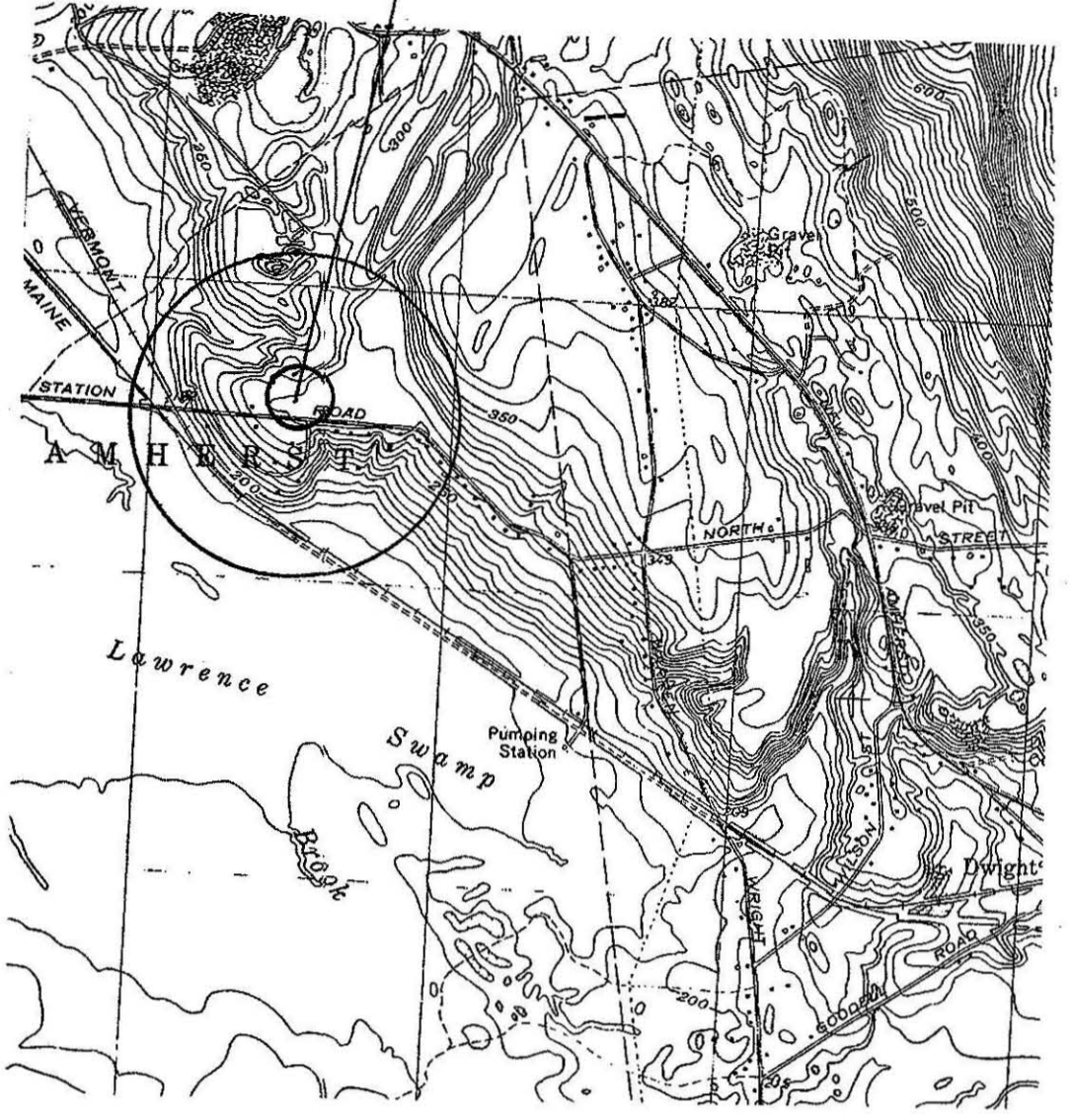
OXIDES ASSUMED @ 120" (NOT OBS)
 ESHWT: ASSUMED @ 90.0' FOR DESIGN, (5' SEPARATION PROVIDED)

NOT OBS. STANDING H2O NOT OBS.
 NOT OBS. WEEPING FROM FACE 120"+
 BEDROCK

CROSS SECTION OF SEPTIC SYSTEM



SITE LOCUS



USING EXISTING SEPTIC TANKS:

AN EXISTING 1,000 GALLON SEPTIC TANK CAN BE USED IF UPON INSPECTION BY THE INSTALLING CONTRACTOR, IF THE TANK IS INSPECTED AND PUMPED AND FOUND TO BE STRUCTURALLY SOUND AT THE TIME OF THE SUBGRADE INSPECTION. IF BAFFLES ARE NOT BUILT IN, THAN SCH 40 PVC TEES MUST BE ADDED. IF TANK IS NOT SOUND THAN, NOTIFY ENGINEER IMMEDIATELY IN ORDER TO ACCOMMODATE A NEW 1,500 GALLON (MIN.) SEPTIC TANK.

DESIGN NOTES:

- 4 BR X 110 GAL/PERSONS/DAY = 440 GAL/DAY (5 bedroom design)
 -Use ONE Leachfield 20' wide x 40' LONG W/16" of .5' of DBL washed stone below invert.
 Bot. Area: 20' wide x 40' long = 800 SF.
 Side Area: N.A.
 Tot. Area: 800 sf x 0.74 gal.sf. = 592 GALL/DAY.
- GARBAGE DISPOSAL NOT ALLOWED. (To Be Removed)
- ALL D. BOX OUTLET PIPES LEVEL FOR 2'.. USE SPEED LEVELERS.
- NO PRIVATE WELLS WITHIN 100 FEET OF SAS. (APPROX. water line NOTED)
- NO WETLANDS WITHIN 150 FEET OF SAS.
- PRE & POST CONTOURS NOTED AS NECESSARY, RESERVE AREA NOT REQUIRED.
- PUMP AND INSPECT EXISTING 1500 GAL S. TANK (@ SUBGRADE INSP) USE TANK, ONLY IF COMPETENT
- REPLACE W/ 1500 GAL S. TANK ONLY IF NEEDED & MAINTAIN 0.02 PITCH FROM SILL TO S. TANK
- SLOPE CALCS (SEE CONTOURS), SUBGRADE INSP. REQ'D.
- 2% MIN. SLOPE OVER SAS, CLEAR TOP AND SUB & OLD SAS TO 30"+ AS NEEDED (SUBGRADE MAY VARY). CLEAR TO BASE OF B (MIN. 30"+) UNDER BED PRIOR TO TITLE V SAND PLACEMENT (AS needed).
- DEPTH OF PERC. 42" BY J. BEGGS 5/16/02, D. ZAROZINSKI 5/16/02.
- PERC RATE = < 2 MIN/IN, CLASS I SOIL RATING (SAND)
- INSTALL/INSPECT SCH. 40 TEES/BAFFLES (10" INLET, 14" OUTLET), AS NEEDED.
- PLACE SCH 40 TEES UNDER OPENINGS OF S. TANK W/ PROPER GAS BAFFLES IF NEEDED/POSS.
- USE APPROVED (1 1/2") DBL. WASHED STONE UNDER BED & D. BOX FOR 6". CONFIRM STONE PROPERLY WASHED (WITH BUCKET H2O TEST) PRIOR TO PLACEMENT.
- NO TREES WITHIN 10 FT. OF NEW LEACH FIELD. (REMOVE TWO LARGE TREES IN AREA OF SAS)
- ENGINEER TO INSPECT SUBGRADE, DISCONNECT/REMOVE OLD SAS WHERE INTERFERES WITH NEW SAS USE/INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK & TO D. BOX.
- GRADE MULCH AND SEED OVER LEACHFIELD AS NOTED AFTER CONSTRUCTION.
- USE LEACHING BED INSTEAD OF TRENCHES DUE TO TOPOGRAPHY AND SPACE OF LOT WITH RESPECT TO LOCATION AND ELEVATION OF RESIDENCE (310 CMR 15.240)
- INSTALLER MUST CALL DIGSAFE IN ACCORDANCE WITH REGULATIONS.
- Remove old SAS were interferes with new system and replace with Title V sand to elevation noted.



SEPTIC REPAIR PLAN FOR 550 STATION ROAD AMHERST, MA

SCALE: NOTED	APPROVED BY: [Signature]	DRAWN BY: AW
DATE: 8/10/02		
COLD SPRING ENVIRONMENTAL, INC.		DRAWING NUMBER: 102-1604-0806

CHARRETTE PRO-FORM 9509F PRINTED ON 80# CHAMPPRINT VELLUM

Per Test 175⁰⁰
Plan + Final 100
275⁰⁰ pd c4 #539

No. _____

Date: 5/16/02

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

Performed By: Jon Beggs
Witnessed By: David Zarzinsky

Date: 5/16/02

Location Address or Lot # <u>same</u>	Owner's Name, Address and Telephone # <u>JOAN HITCH</u> <u>550 STATION ROAD</u> <u>256-3254</u>
New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	

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) _____

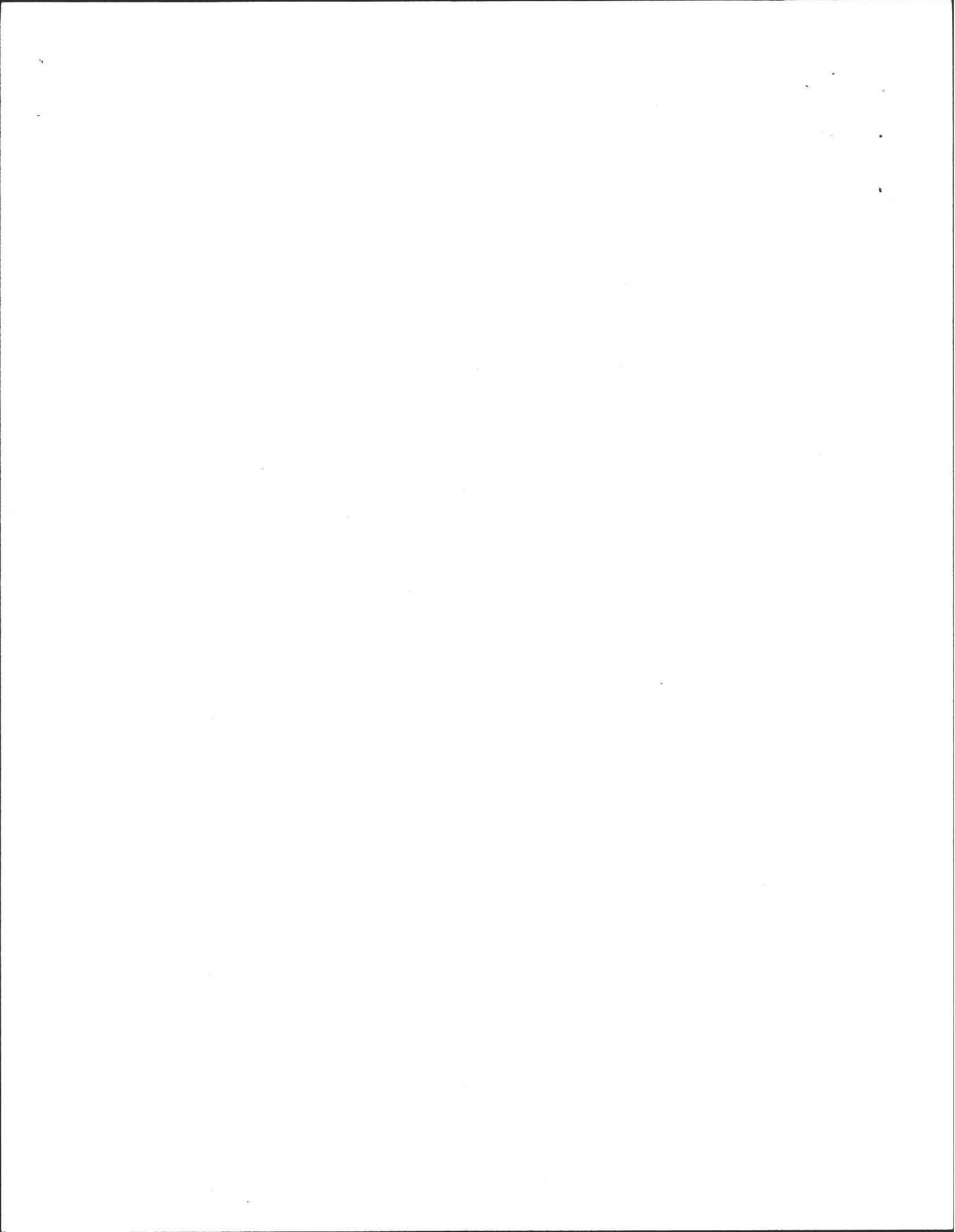
Wetlands Conservancy Program Map (map unit) _____

Current Water Resource Conditions (USGS): Month _____

Range : Above Normal Normal Below Normal

Other References Reviewed: _____





Location Address or Lot No. 550 STATION RD

On-site Review

Deep Hole Number (1) Date: 5-16-02 Time: 9:30 Weather: Sunny 50°

Location (identify on site plan) _____

Land Use Residential 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)
9	A	FSL	10YR 4/4	-	Loose granular
16	Bw	SL	10YR 5/6	-	"Silty" Stone
120	C	Fine Sand	2.5Y 5/4	-	Loose granular Stones + Gravel

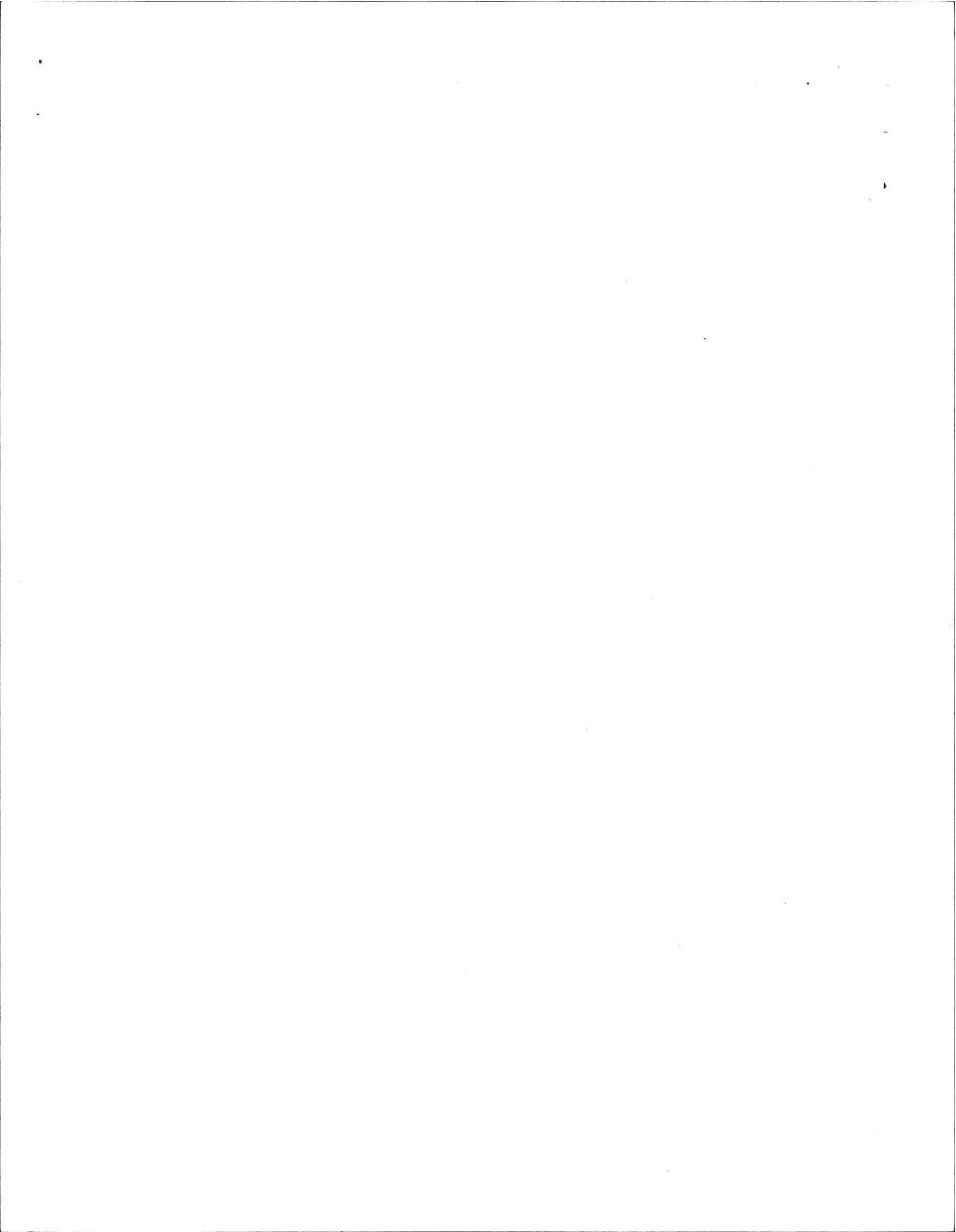
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) OUTWASH Depth to Bedrock: 120"

Depth to Groundwater: Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 120"





4 Bedrooms

FORM 12: Percolation Test
Location Address or Lot #

550 STATION ROAD

Commonwealth of Massachusetts

Town of Amherst

PERCOLATION TEST *

DATE: 5/16/02 TIME:

Observation Hole #	①	
Depth of Perc	42"	
Start Pre-soak	9:48	
End Pre-soak	9:55	
Time at 12"	used	
Time at 9"	24 gals	
Time at 6"		
Time (9"-6")		
Rate Min./Inch		

*Minimum of one percolation test must be performed in both the primary area and reserve area.

Site Passed

Site failed

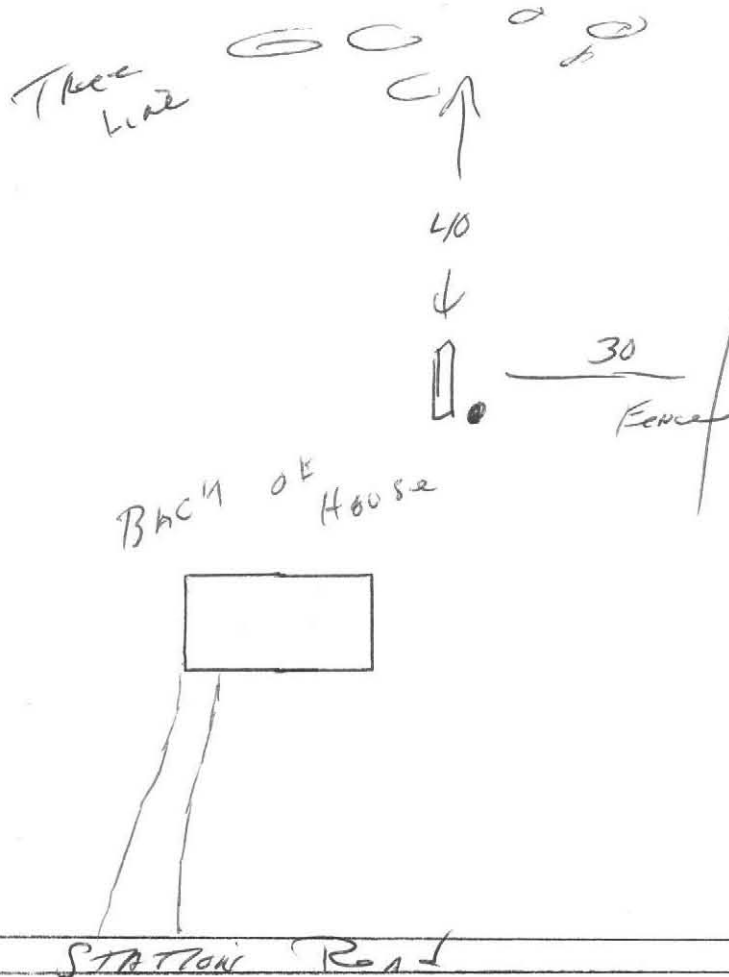
Performed by

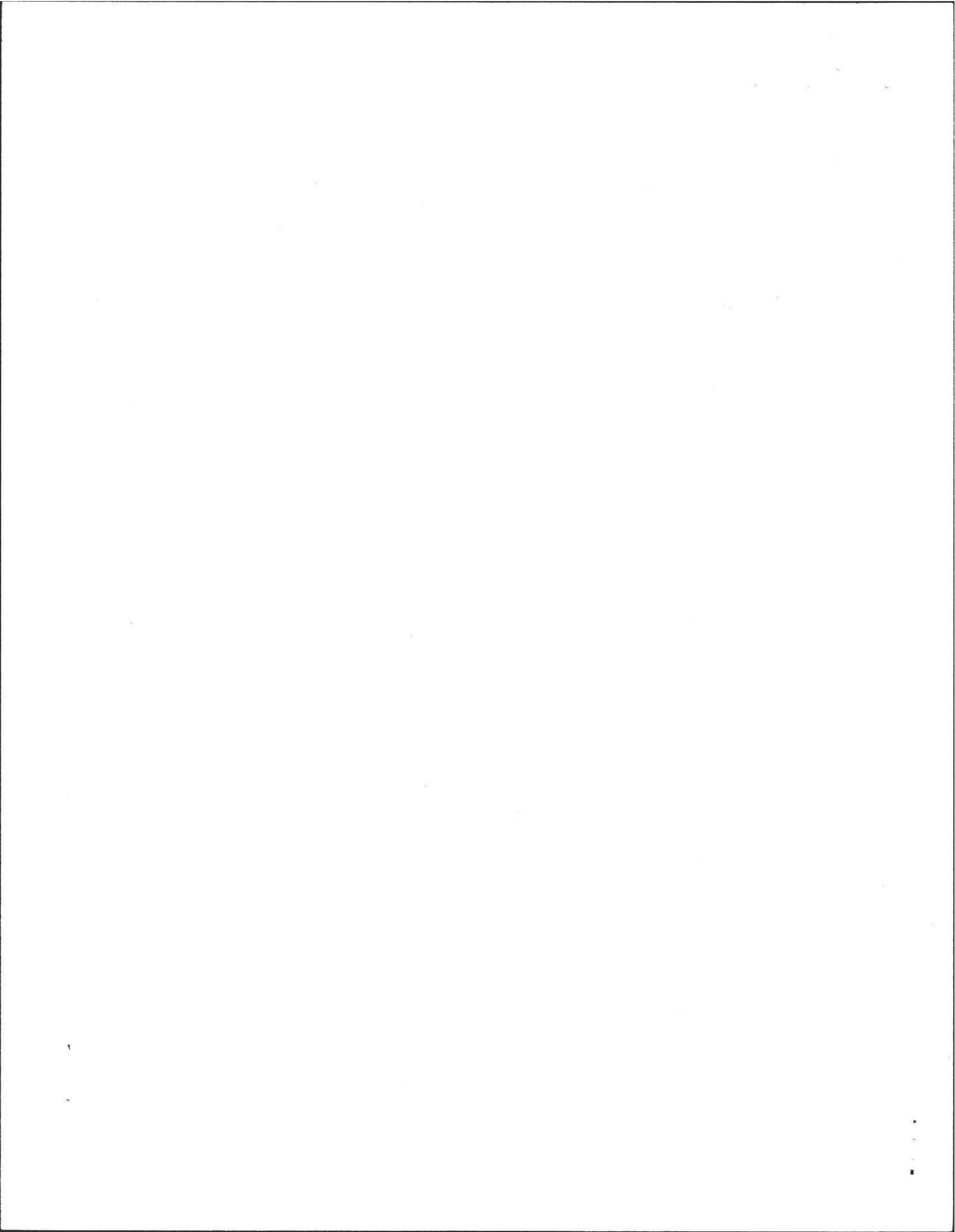
J. Beggs

Witnessed by

David Zarnoch

Comments:





JOANNE H HITCH
550 STATION ROAD
AMHERST, MA 01002
413-256-3254

539

5/16/02
DATE

53-248/118

PAY TO THE ORDER OF Town of Amherst \$ 275.00
two hundred seventy five & 00/100 DOLLARS

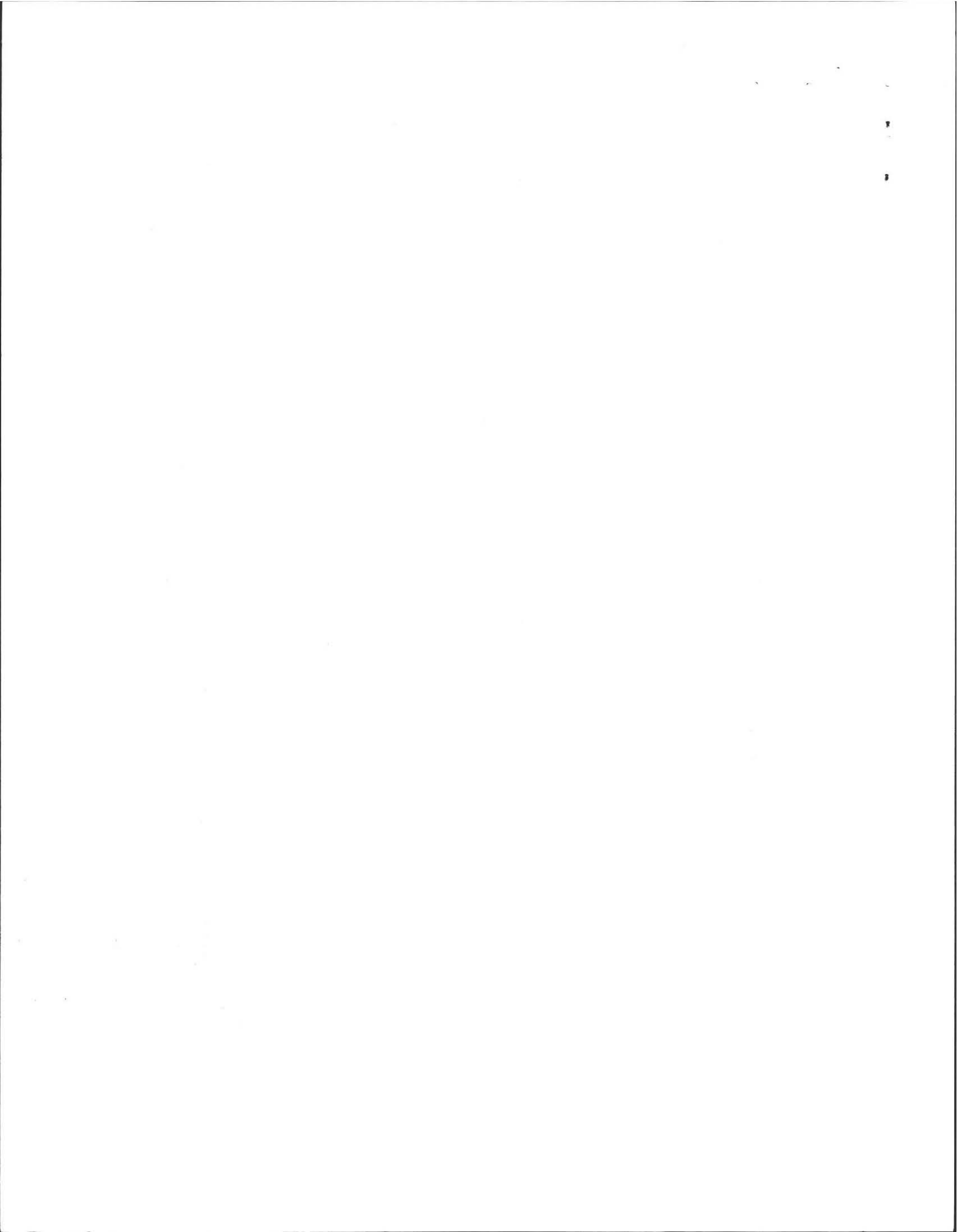


THE BANK OF WESTERN
MASSACHUSETTS
SPRINGFIELD, MASSACHUSETTS

FOR

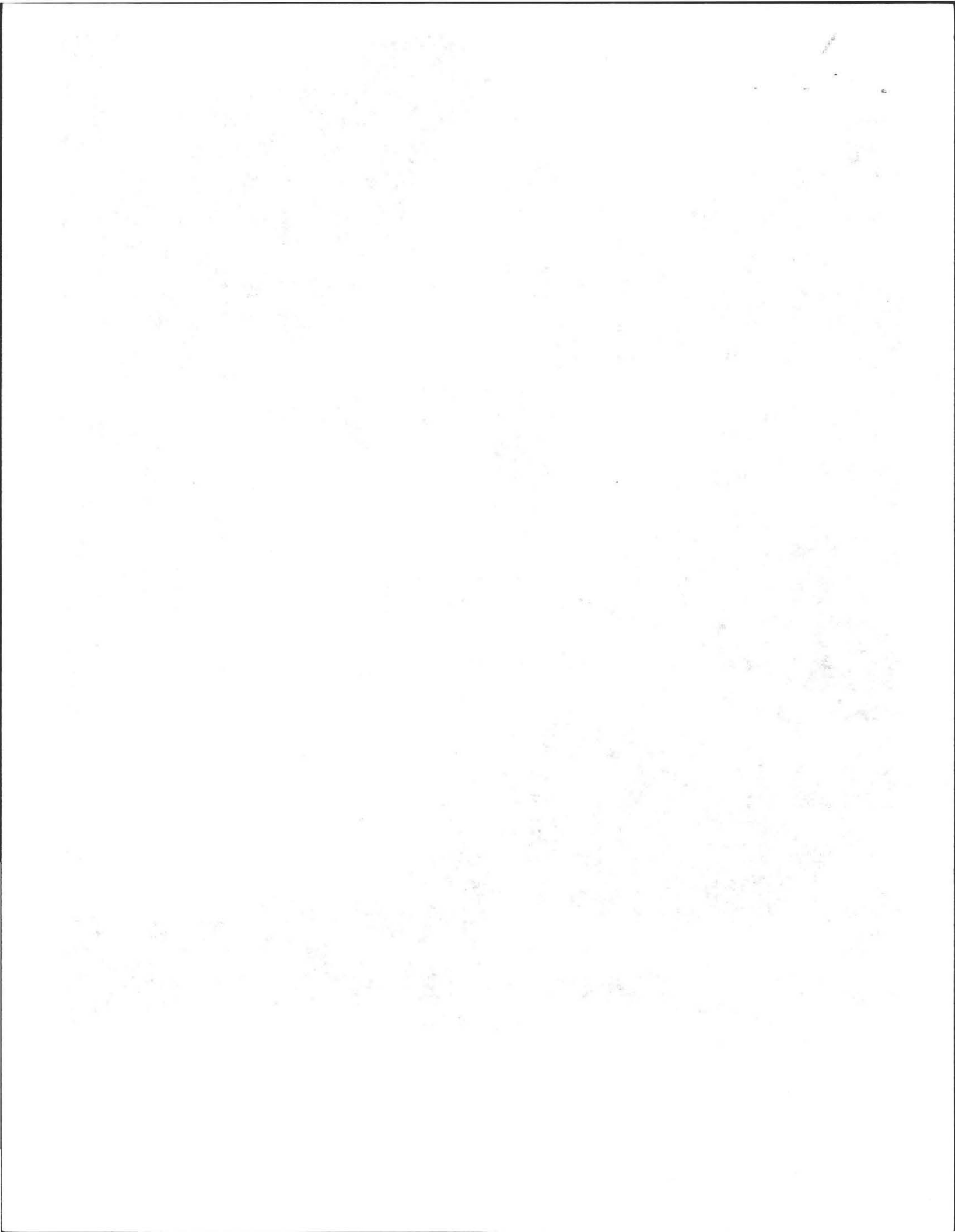
Joanne A Hitch MP

⑆011802488⑆ 08 00224322⑆ 0539





550 Station Road Perc test 5/16/02
Engineer: J. Beggs





550 Station Road Perc test 5//16/02
Owner: Joan Hitch
Engineer: J. Beggs

