



B 1 2224

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

40-94-3800 fill in this form completely

519575 please type

OWNER INFORMATION: Date Received (APA) 09/16/03, Sutch Christopher + Deena, 1143 Mermaid Dr., Annapolis MD 21401

LOCATION OF WELL: Howard County, Philadelphia Acres, Section 44, Lot 2, Nearest Town: Glenelg, 1/2 mile from town

DRILLER INFORMATION: Joseph L. Mayne, MS D 024, 5512 Ridge Rd, Mt Airy MD 21771, Date: 9/12/03

WELL INFORMATION: Direction of well from town (E), Near what road: Trindolphin Road, Distance from road: 625 FT, Tax map: 22 Blk: 14 Parcel: 21

USE FOR WATER: D (Domestic Potable Supply & Residential Irrigation), Approx. Pumping Rate: 4 GAL PER MIN, Average Daily Quantity Needed: 500 GAL PER DAY

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL: Howard County, State Signature: Mark E. Ruffin, Date Issued: 09/22/03, North Grid: 520, East Grid: 0805

METHOD OF DRILLING: BORED (or Augered), AIR-ROTary

APPROXIMATE DEPTH OF WELL: 300 FEET, APPROXIMATE DIAMETER OF WELL: 6 INCH

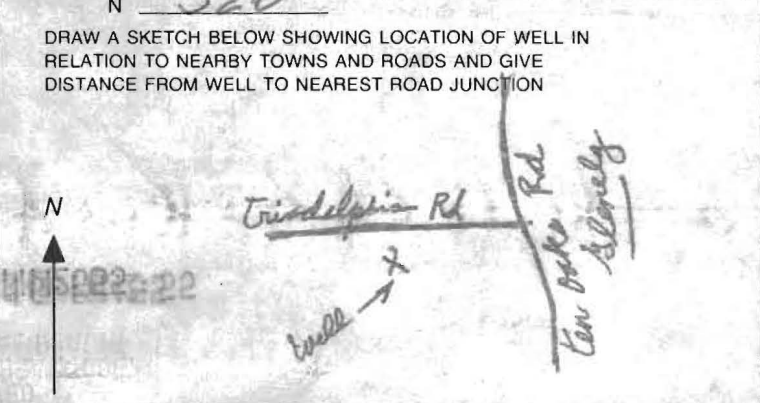
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X: 10/2/03 grant TAM NO INSP, 10/8/03 grant TAM NO INSP, WRITE THE BOX NUMBER FROM THE MAP HERE: E 0805, N 520

REPLACEMENT OR DEEPEMED WELLS: THIS WELL WILL NOT REPLACE AN EXISTING WELL (N)

REPLACEMENT OR DEEPEMED WELLS: PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE): 41

Not to be filled in by driller (MDE OR COUNTY USE ONLY): APPROP. PERMIT NUMBER: G, PERMIT No. 40-94-3800

SPECIAL CONDITIONS: NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED







13364

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
WATER AND SEWERAGE PROGRAM  
TEL: (410)313-2640 FAX: (410)313-2648

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: Charles A Klein & Son, Inc Telephone #: (410) 548-1936  
Address: 3220 Kloss Hill Road  
Spencerville, MD 21159

(Must circle one) Licensed Plumber Licensed Well Driller  
License # and name of individual responsible for the field installation: \_\_\_\_\_  
Name (Print): Charles A Klein, Jr License # 6521

\* A Licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.

Name of Property Owner: Stacy Minkola Telephone #: \_\_\_\_\_  
Subdivison: ROSELAWN Lot #: 88 Well Tag #: HO-94-3800  
Site Address: 15517 WILDEFIELD RD 21159

Submersible Pump Data  
Make: INCO Pitless Adapter: \_\_\_\_\_  
Model #: 5545-13P-52 Make: INCO  
Pump Capacity: 5 GPM Depth: 800  
Well Yield: 20 GPM NSF approved: ✓

Depth of well encountered at time of pump installation: 335 (feet)  
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4  
Torque arrester or Cable guards are required - None circle one  
Safety rope, if used, attached to handle of well casing with eye bolt \_\_\_\_\_

Pitless Adapter  
Type: POLLINGTON CABLE Home Connection  
PSC (160 psi min) \_\_\_\_\_ PVC sleeved to undisturbed soil at well penetration: Yes  
Depth of supply line: 36 (min) \_\_\_\_\_ Approximate length of sleeve: \_\_\_\_\_  
Sleeve caulked and sealed properly: ✓

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage receive area. If this cannot be accomplished, contact this office for appropriate remedial installation.

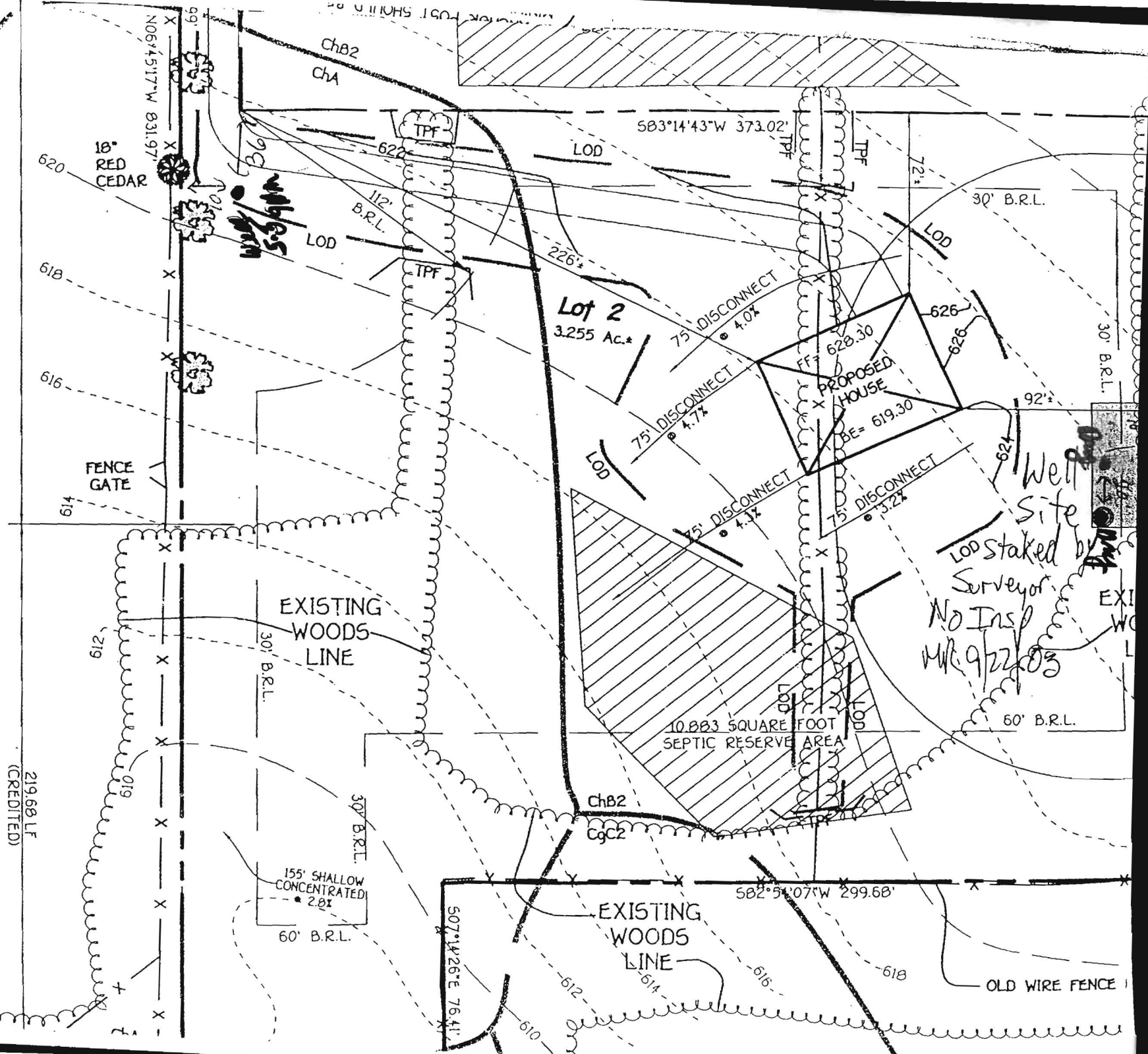
Signature of contractor responsible for installation: [Signature] date: 3/8/04  
M. STEVE F. RUEN

For Health Department Use Only - Not to be completed by Installer

Date Insp Requested: 3/8/04 Date Insp. Approved: 3/8/04  
Inspection Data: Pitless adapter and water supply line at least 36" below grade \_\_\_\_\_  
Two piece cap installed and secured to casing securely \_\_\_\_\_  
Elec. conduit extends at least 18" below grade/attached to cap properly \_\_\_\_\_  
Safety rope installed inside of well casing \_\_\_\_\_  
Correct well log attached properly and casing 8" above finished grade \_\_\_\_\_  
Water supply line elevated adequately at house connection \_\_\_\_\_  
Adequate ground observed below pitless adapter \_\_\_\_\_

\_\_\_\_\_

MICHAEL R. KOONITZ  
AND  
WINFRED G. KOONITZ  
LIBER 4000, FOLIO 50B  
TAX MAP 22 PARCEL 79  
ZONED RR-DEC



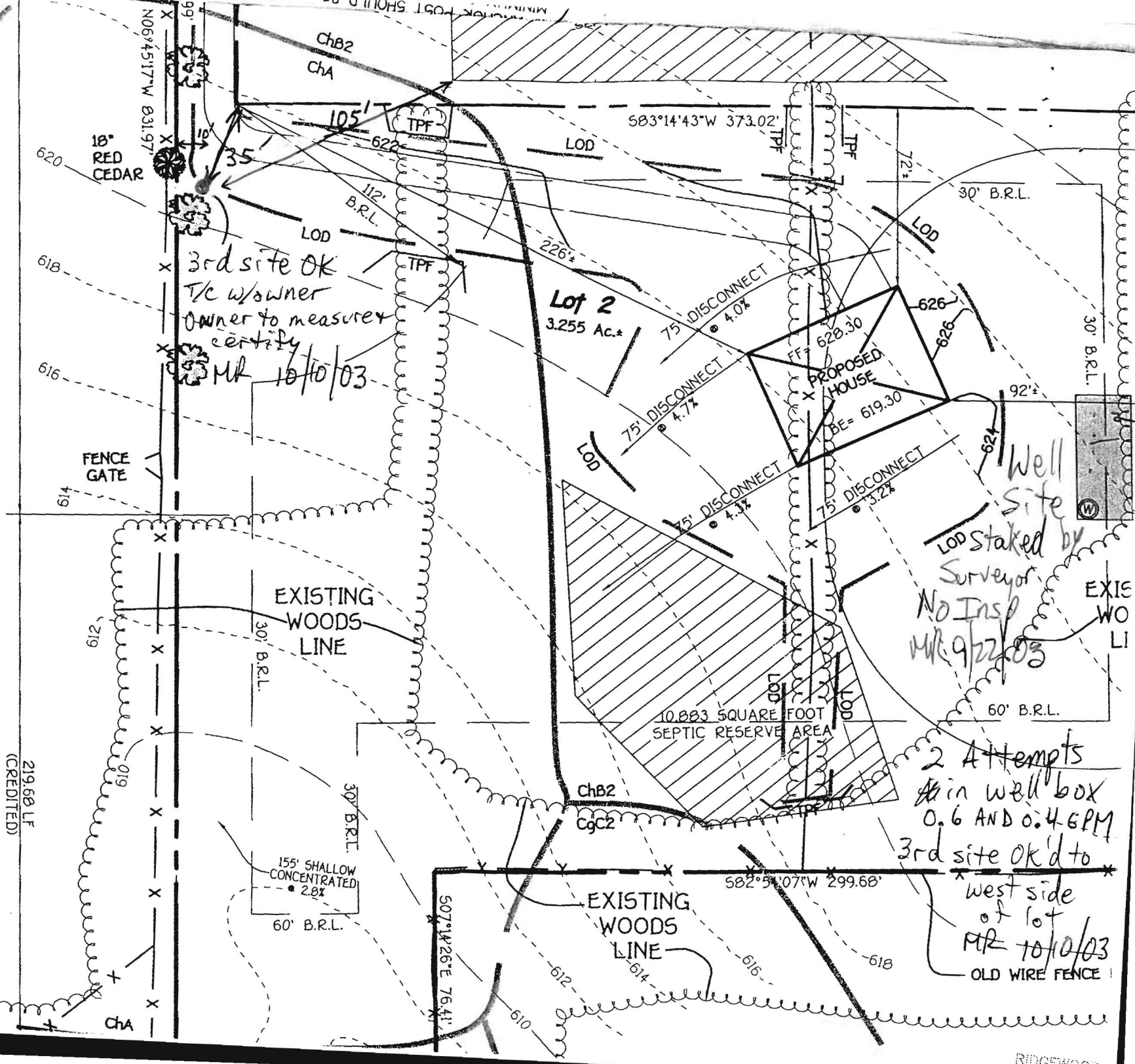
Well Site  
LOD Staked by  
Surveyor  
No Insp  
M.R. 9/22/03

219.68 LF  
(CREDITED)

155' SHALLOW  
CONCENTRATED  
• 2.0%

OLD WIRE FENCE

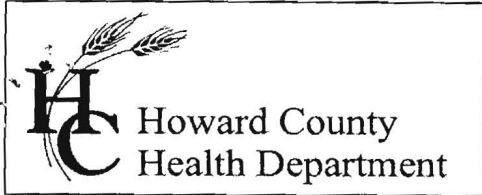
MICHAEL R. KOONITZ  
 AND  
 WINIFRED G. KOONITZ  
 LIBER 4300, FOLIO 506  
 TAX MAP 22 OF PARCEL 79  
 ZONED: RR-DEO



3rd site OK  
 T/C w/owner  
 Owner to measure &  
 certify  
 MR 10/10/03

Well site  
 LOD Staked by  
 Surveyor  
 No Insp  
 MR 9/22/03

2 Attempts  
 in well box  
 0.6 AND 0.4 GPM  
 3rd site OK'd to  
 west side  
 of lot  
 MR 10/10/03  
 OLD WIRE FENCE



3525 H Ellicott Mills Drive, Ellicott City, MD 21043  
(410) 313-1771 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

June 1, 2004

Chris & Deena Sutch  
13527 Triadelphia Road  
Glenelg, MD 21042

**SENT VIA FACSIMILE 410-531-8070**

RE: 13527 Triadelphia Road  
Adelphia Acres, Lot 2  
BP # B00144664  
Well Permit # HO-94-3800

Dear Sirs:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 03/04/2004. Final approval of the well line connection to the dwelling was approved on 03/08/2004.**

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking. The water sample results were found to be in compliance with COMAR water quality standards.

**INTERIM CERTIFICATE OF POTABILITY**

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-94-3800. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

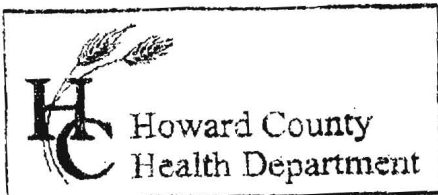
Date of Water Samples: 05/17/2004, 05/21/2004 & 05/26/2004  
Date of Well Completion: 10/15/2003

Approving Authority,

*Brian Baker*

Brian Baker, R. S.  
Well & Septic Program

cc: Building Inspector's Office  
Community Health Services  
File



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Penny E. Borenstein, M.D., M.P.H., Health Officer

REQUEST FOR TEMPORARY DEVIATION TO  
 TURBIDITY STANDARDS FOR CERTIFICATE OF POTABILITY

DATE: 6/1/04 WELL PERMIT #: HO - 94 - 3800

PROPERTY OWNER: Chris & Deena Sutch  
 SUBDIVISION & LOT #: \_\_\_\_\_  
 PROPERTY ADDRESS: 13527 Triadelphia Rd.  
Ellicott City, MD 21042

TESTIMONIAL: (Steps taken thus far by well owner or agent to eliminate excessive turbidity)

We have run the water for 24 hours & were informed by National Water Service that our turbidity was due to excess iron, so a filtration system was installed.

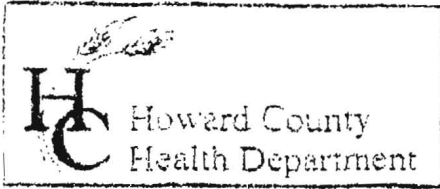
PLEDGE: (Steps to be taken by the well owner or agent to bring the well into compliance with COMAR 26.04.04.07 (J) within fifteen (15) days)

A water sample will be taken before & after filtration to prove there is excess iron in the water

CONDITIONS:

- 1) Within fifteen (15) days, the well installed under permit # HO - - will be documented to have a turbidity level of less than 10 NTUs as a result of implementation of approved procedures. Approvable procedures include raising the well pump, additional well pumping, or further well development or other construction techniques performed by a licensed well driller. Filtration to remove dissolved iron, which frequently lowers turbidity levels, is also an approvable procedure. Filtration to remove sediment unrelated to iron is not an acceptable means of establishing turbidity compliance for wells being approved for service.
- 2) If the turbidity condition cannot be remediated to a level below 10 NTUs through approved procedures, then drilling a replacement well would likely be necessary. Issuance of a Final Certificate of Potability will be delayed until the issue is concluded.

I hereby request that a Fifteen-Day Temporary Deviation to COMAR 26.04.04.07 J2b be granted



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 (410) 313-2640 Fax (410) 313-2648  
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Penny E. Borenstein, M.D., M.P.H., Health Officer

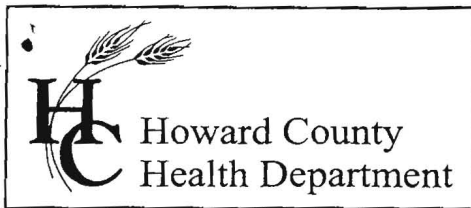
for the well installed under permit # HO - - - . I am fully aware of the conditions under which this deviation will be granted and my responsibilities as the well owner which will include advising any future buyer/tenant of the installation , condition and maintenance responsibilities of an iron removal device if applicable.

Prospective Owner's Original Signature(s) [ Person(s) that intend to live in the dwelling ]

Deane Sutch                      Christopher M. Sutch

Prospective Owner's Day Time Phone Number(s)

410-279-0757



3525 H Ellicott Mills Drive, Ellicott City, MD 21043  
(410) 313-2640 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

May 28, 2004

Chris & Deena Sutch  
13527 Triadelphia Road  
Glenelg, MD 21042

*SENT VIA FACSIMILE 410-531-8070*

RE: Adelphia Acres, Lot 2  
13527 Triadelphia Road  
BP # B00144664  
Well Permit #HO-94-3800

Dear Sirs:

This is to advise you that the septic system for the above referenced property has been installed and inspected. Final approval of the septic system was granted on 3/4/2004.

This is a **Temporary Deviation** to the Code of Maryland Regulations (COMAR 26.04.04) to allow additional time for a well failing certificate of potability to be brought into compliance with these regulations. The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

The turbidity sample results were previously documented to be 55.2 NTUs on May 21, 2004. A treatment device **has not** been installed to treat the excessive turbidity. COMAR 26.04.04.07 prohibits the approval of any water supply with a turbidity level of 10 NTUs or greater. **This department will grant a temporary deviation to that section of the regulation on condition that the turbidity level be lowered to below the limit either over time naturally or through the use of an approved treatment device (iron removal). Documentation of a turbidity level below the limit shall be submitted to this office by a state certified lab within fifteen days of the date of this letter.**

By the end of the interim period (**fifteen days**), a determination shall be made by the Health Department whether to accept the well as being in compliance with the turbidity standard of COMAR 26.04.04.07J2b and issue an Interim Certificate of Potability, or issue an order that the well be abandoned and sealed. Issuance of this Temporary Deviation is based on information submitted by the potential occupant of the dwelling. **By issuance of this letter, the Health Department recommends release of the Use and Occupancy permit for the above referenced property.**

Date of Water Sample(s): 5/17/2004, 5/21/2004 & 5/26/2004  
Date of Well Completion: 10/15/2003

Respectfully,

Mark E. Rifkin  
Registered Environmental Sanitarian  
Approving Authority  
Well and Septic Program

SJN

cc: Building Inspector's office  
File

# INVOICE

## National Water Servicing Corp.

P.O.Box 138  
Ashton, MD 20861

Main: 301-854-1333 Fax: 301-854-1538

DATE INVOICE #

5/26/2004 21628

BILL TO:

Griffmore Group  
4231 Linthicum Rd  
Dayton, Md 21036

*PROPERTY Address:  
13527 TRIADeLPHIA Rd.*

P.O. NUMBER	TERMS	PROJECT
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	Due on receipt	
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QUANTITY	DESCRIPTION	RATE	AMOUNT
1	2 Tank Multistage Sediment/Turbidity Reducer 10x47 & 10x54 polyglass tanks with automatic Autotrol 263 valve. Media as follows: Gravel, Gamet #1, Gamet #2, Calcite, Bim, Filter AG	2,100.00	2,100.00
1	Shock Well (Pellet)	65.00	65.00
1	Laboratory Testing - U&O (5/17/04)	125.00	125.00
1	Laboratory Testing - TURBIDITY (05/21/04)	75.00	75.00
1	Laboratory Testing - TURBIDITY (05/26/04)	75.00	75.00

All invoices will be charged a 2% financing fee after 30 days from invoice date. Your prompt payment is appreciated!  
We accept Visa, MasterCard, Am.Ex, Discover. If you would like to charge this invoice, please call the office at 301-854-1333 Mon- Fri 8am - 4:30pm

Thank you for your business !!	<b>TOTAL</b>	<b>\$2,440.00</b>
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Clack Birm® is a granular filter media commonly used for the reduction of iron and/or manganese from water supplies.

# Birm®

## ADVANTAGES

- Under the proper conditions, no chemicals to purchase for maintenance. Regeneration not required.
- Iron removal efficiency is extremely high.
- Negligible labor cost: only periodic backwashing required.
- Durable material with a long life and wide temperature range.
- Weighs only 40-45 lbs./cu. ft.

## PHYSICAL PROPERTIES

- Color: Black
- Bulk Density: 40-45 lbs./cu. ft.
- Mesh Size: 10 x 40
- Specific Gravity: 2.0 gm/cc
- Effective Size: 0.48 mm
- Uniformity Coefficient: 2.7

## CONDITIONS FOR OPERATION

- Alkalinity should be greater than two times the combined sulfate and chloride concentration.
- Water pH range: 6.8-9.0
- Dissolved Oxygen (D.O.) content must be equal to at least 15% of the iron (or iron and manganese) content.
- Bed depth: 30-36 in.
- Freeboard: 50% of bed depth (min.)
- Backwash rate: 10-12 gpm/sq. ft.
- Backwash Bed Expansion: 20-40% of bed depth
- Service flowrate: 3.5-5 gpm/sq. ft. Intermittent flow rates and/or favorable local conditions may allow higher flow rates
- Free chlorine concentration less than 0.5 ppm
- Hydrogen Sulfide should be removed prior to the Birm filter.

Birm® is an efficient and economical media for the reduction of dissolved iron and manganese compounds from raw water supplies. It may be used in either gravity fed or pressurized water treatment systems. Birm acts as an insoluble catalyst to enhance the reaction between dissolved oxygen (D.O.) and the iron compounds. In ground waters the dissolved iron is usually in the ferrous bicarbonate state due to the excess of free carbon dioxide and is not filterable. Birm, acting as a catalyst between the oxygen and the soluble iron compounds, enhances the oxidation reaction of  $Fe^{2+}$  to  $Fe^{3+}$  and produces ferric hydroxide which precipitates and may be easily filtered. The physical characteristics of Birm provide an excellent filter media which is easily cleaned by backwashing to remove the precipitant. Birm is not consumed in the iron removal operation and therefore offers a tremendous economic advantage over many other iron removal methods.

Other advantages of Birm include; long material life with relatively low attrition loss, a wide temperature performance range and extremely high removal efficiency. Negligible labor costs are

involved because Birm does not require chemicals for regeneration, only periodic backwashing is required.

When using Birm for iron removal, it is necessary that the water: contain no oil or hydrogen sulfide, organic matter not to exceed 4-5 ppm, the D.O. content equal at least 15% of the iron content with a pH of 6.8 or more. If the influent water has a pH of less than 6.8, neutralizing additives such as Clack Corosex, Calcite or soda ash may be used prior to the Birm filter to raise the pH. A water having a low D.O. level may be pretreated by aeration. Chlorination greatly reduces Birm's activity. High concentrations of chlorine compounds may deplete the catalytic coating.

Clack Birm may also be used for manganese reduction with the same dependability as iron removal. In these applications the water to be treated should have a pH of 8.0-9.0 for best results. If the water also contains iron, the pH should be below 8.5. High pH conditions may cause the formulation of colloidal iron which is very difficult to filter out. All other conditions remain the same for either manganese or iron removal.

