

C 1 06653 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE

COUNTY NUMBER A39720 OKSRK 8/27/99

ST/CO USE ONLY DATE RECEIVED MM DD YY 8 13

DATE WELL COMPLETED MM DD YY 08 11 99

Depth of Well 22 205 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-94-2349

OWNER Digi Data last name Emerald Valley first name TOWN W Friendship SUBDIVISION Hawks Field SECTION LOT 9

WELL LOG Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows include: Dirt, Soft Br. mica, clay & sand, Hard & soft Br sand stone, Hard blue & Br schist w/ mixed sand stone, Hard blue mica schist, Hard Br sandstone, Hard blue & Br. mica schist, Hard Br & blue mica schist, Br. sandstone, Clay & sand, Br. sandstone.

GROUTING RECORD yes no (Y) (N) WELL HAS BEEN GROUTED (Circle Appropriate Box)

TYPE OF GROUTING MATERIAL (Circle one) CEMENT (CM) BENTONITE CLAY (BC) NO. OF BAGS 65 NO. OF POUNDS 610 GALLONS OF WATER 390 DEPTH OF GROUT SEAL (to nearest foot) from 0 48 TOP 52 ft. to 100 54 BOTTOM 58 ft.

CASING RECORD (circle types insert appropriate code below) (ST) (CO) (PL) (OT) STEEL CONCRETE PLASTIC OTHER

MAIN CASING TYPE (ST) Nominal diameter top (main) casing (nearest inch)! 6 Total depth of main casing (nearest foot) 102

OTHER CASING (if used) diameter depth (feet) PL 4 inch 0 from 80 to PL 4 100 150 PL 4 160 195

SCREEN RECORD screen type or open hole (insert appropriate code below) (ST) (BR) (HO) (PL) (OT) STEEL BRASS BRONZE PLASTIC OPEN HOLE OTHER

DEPTH (nearest ft.) A C H S R E N 1 PL 80 100 2 PL 150 160 SLOT SIZE 1 .010 2 .010 3 .010 DIAMETER OF SCREEN 4 (NEAREST INCH) from 80 to 195

C 3 PUMPING TEST

HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 12. METHOD USED TO MEASURE PUMPING RATE Submersible WATER LEVEL (distance from land surface) BEFORE PUMPING 32 ft. WHEN PUMPING 39 ft. TYPE OF PUMP USED (for test) (S) submersible

PUMP INSTALLED DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES (NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS. TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35 PUMP HORSE POWER 37 41 PUMP COLUMN LENGTH (nearest ft.) 43 47 CASING HEIGHT (circle appropriate box and enter casing height) (+) above () below LAND SURFACE 2 (nearest foot)

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) Old Oak Drive

NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED (Y) (N)

CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 296, Ronald Kyker DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. M D 334, Danny Kyker

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q 70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

B 1 4239

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND PERMIT TO DRILL WELL please print or type

STATE PERMIT NUMBER

HO-94-2349 fill in this form completely

Date Received (APA) 0720 99

OWNER INFORMATION

Digi Data Holdings 9881 Brokenbank Parkway Columbia Maryland 21046

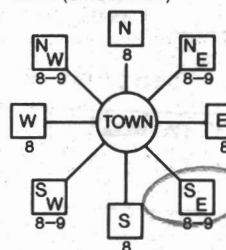
B 3 LOCATION OF WELL

Howard COUNTY Hawksfield Estates SECTION 1 LOT 17 West Friendship NEAREST TOWN MILES FROM TOWN 2

DRILLER INFORMATION

Ronald Kyker MWD 296 Westminster Rotary Well Drill Pa Bcx 861 Westminster md 21157 Ronald Kyker 7-16-99

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Emerald Valley Rd NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH SOUTH DISTANCE FROM ROAD 1000 ENTER FT OR MI TAX MAP: 16 BLK: 20 PARCEL 258

B 2 WELL INFORMATION APPROX. PUMPING RATE 5 (GAL. PER MIN.) AVERAGE DAILY QUANTITY NEEDED 500 (GAL. PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION (circled) FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) INDUSTRIAL, COMMERCIAL, DEWATERING PUBLIC WATER SUPPLY WELL TEST, OBSERVATION, MONITORING GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard CO A39720 COUNTY NAME COUNTY NO. STATE SIGNATURE DATE ISSUED 073099 A McMille 7/30/00 CO SIGNATURE EXP. DATE NORTH GRID 530 000 EAST GRID 820 000

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL (circled) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS THIS WELL WILL DEEPEM AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER 1. City 2. 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 820 N 820 530

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



Emerald Valley

x well

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER 54 G A P 63 PERMIT No. HO-94-2349

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 94 2349
 Location of property (road) Emerald Valley Way
 Subdivision Hawksfield Lot 17 Blkck Plat Sec.
 Well Driller Ron Kyker Owner Digi Data

Depth of well 205 feet
 Distance of measuring point (M.P.) above ground 2 feet
 Static water level (S.W.L.) below M.P. 32 feet

I. High rate pumping -- reservoir drawdown

Time pump started 8:40 am Pumping rate 12 GPM
 Total time 3 hrs to reach pumping water level 39 ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

TIME (in 15 minute intervals)	WATER LEVEL below M.P.	PUMPING RATE time to fill $\frac{1}{2}$ gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
8:40	32'	5 sec		12
8:55	39'	5 sec		12
9:10	39'	5 sec.		12
9:25	39'	5 sec.		12
9:40	39'	5 sec.		12
9:55	39'	5 sec.		12
10:10	39'	5 sec.		12
10:25	39'	5 sec.		12
10:40	39'	5 sec.		12
10:55	39'	5 sec.		12
11:10	39'	5 sec.		12
11:25	39'	5 sec.		12
11:40	39'	5 sec.		12

Page _____ of _____
 Date 9/11/99

No insp - SRK

Review _____

9:00 BRES
 9:30 6 run

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 94 23 000 49
 Location of property (road) Emerald Valley Way
 Subdivision Hawksfield Lot 12 Block _____ Plat _____ Sec. _____
 Well Driller Ron Kyker Owner Diqi Data

Depth of well _____
 Distance of measuring point (M.P.) above ground _____
 Static water level (S.W.L.) below M.P. _____

I. High rate pumping -- reservoir drawdown

Time pump started _____ Pumping rate _____
 Total time _____ to reach pumping water level _____ ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

TIME (in 15 minute intervals)	WATER LEVEL below M.P.	PUMPING RATE time to fill 5 gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)

*File
8-24-0*

**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: WILLOUGHBY PLUMBING Telephone #: 410-781-7051
Address: 6203 PATRICK DR
SIKESVILLE, MD 21784

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:
Name (Print): CHRIS WILLOUGHBY License# 6992

*A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.

Name of Property Owner: GEORGE & LAURA MAMO Telephone #: 410-418-9543
Subdivision: HAWKS FIELD Lot #: 17 Well Tag #: HO 94-2349

315 Old OAK

Site Address: 3115 Old OAK
ELLCOTT CITY, MD 21043

Submersible Pump Data
Make: JALUZZI

Pitless Adapter
Make: HARVARD

Well Cap and Electric Conduit
Two piece watertight cap:

Model #: _____

Model #: _____

Screened, vented well cap:

Pump Capacity _____ GPM

Depth: 48" (36" min)

Cap secured to casing:

Well Yield: 6 GPM

NSF/WSC approved: _____

Conduit min 18" B.G.:

Depth of well encountered at time of pump installation 205 (feet) Conduit secured to well cap:

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors, Cable guards, or other acceptable method used- Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

Piping to house

House Connection

Type: PRESS LINE

PVC sleeve to undisturbed soil at wall penetration:

PSI: 1" (160 psi min)

Approximate length of sleeve: 6'

Depth of supply line: (36" min)

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 reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: Chris Willoughby

date: 8/25/04

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

Date Insp. Requested: _____ Date Insp. Approved: 11/1/04 Inspector: (50)

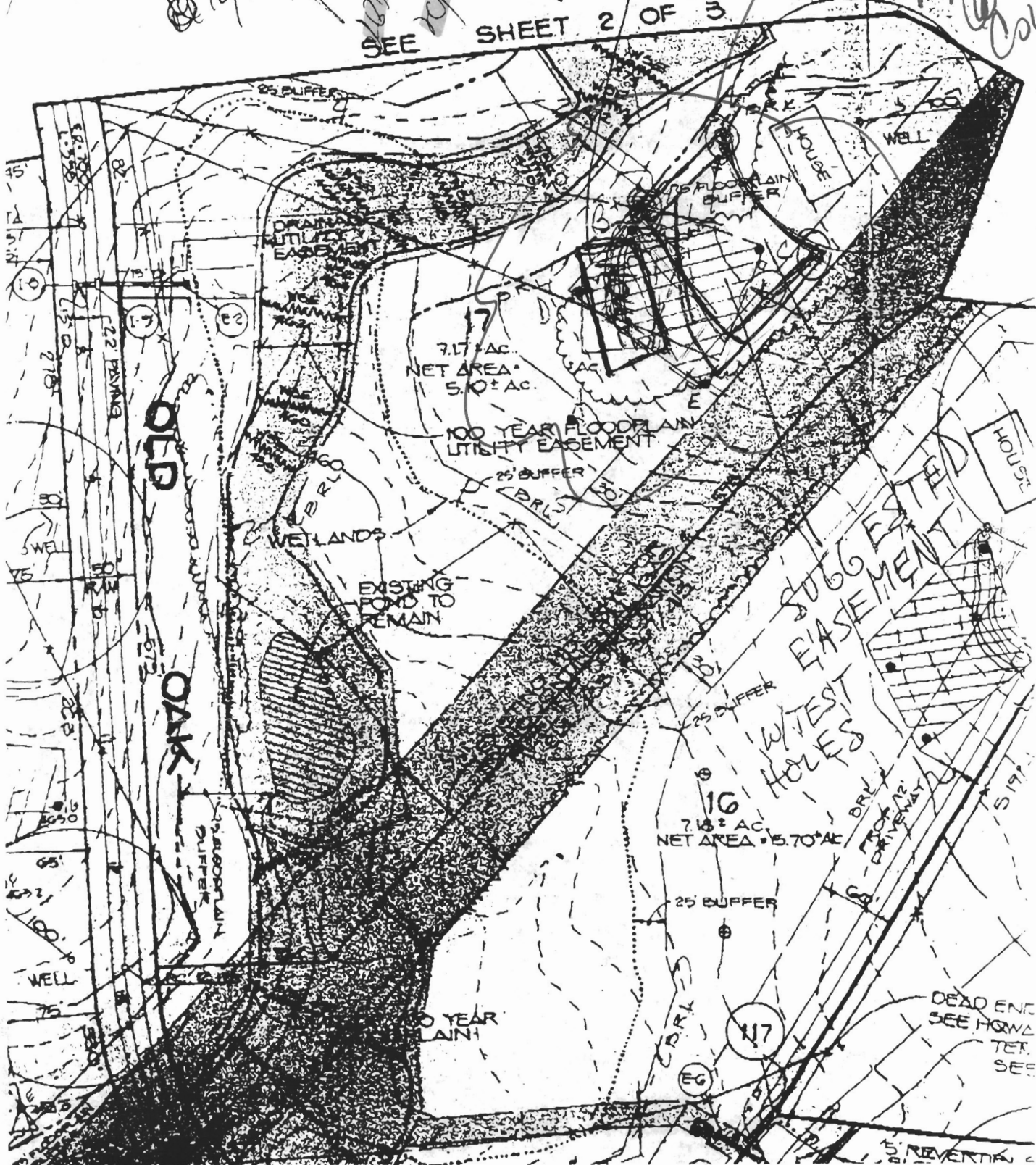
- Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade
- Two piece cap installed and attached to casing securely
- Elet. conduit extends at least 18" below grade/attached to cap properly
- Safety rope not seen outside of well cap/casing
- Correct well tag attached properly and casing 8" above finished grade
- Water supply line sleeved adequately at house connection
- Adequate grout observed below pitless adapter

MR W/OWNERS
10/25/01

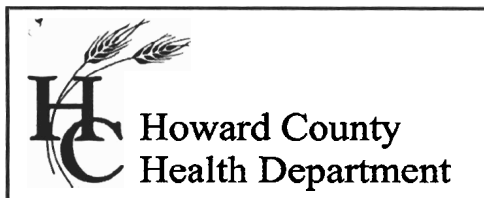
SEE SHEET 2 OF 3

APPROX HOUSE DESIRED

MARK
Rifkin
County



Rec'd 1/15/02
HCHD



7178 Columbia Gateway Drive, Columbia
Maryland 21046
(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

01/19/2007

Homeowner
3115 Old Oaks Drive
Ellicott City, MD 21043

RE: Hawksfield Estates, Lot 17
3115 Old Oaks Drive
Ellicott City, MD 21043
BP # B00138979
Well Permit # HO-94-2349

Dear Sir/Madam:

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 05/23/2006. Final approval of the well line connection to the dwelling was approved on 11/01/2004.**

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.

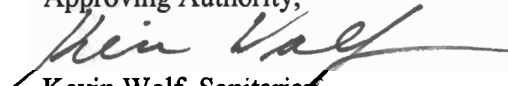
INTERIM CERTIFICATE OF POTABILITY

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-94-2349. 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: 05/12/2006, 05/23/2006, 12/04/2006, & 01/11/2007
Date of Well Completion: 08/11/1999

Approving Authority,



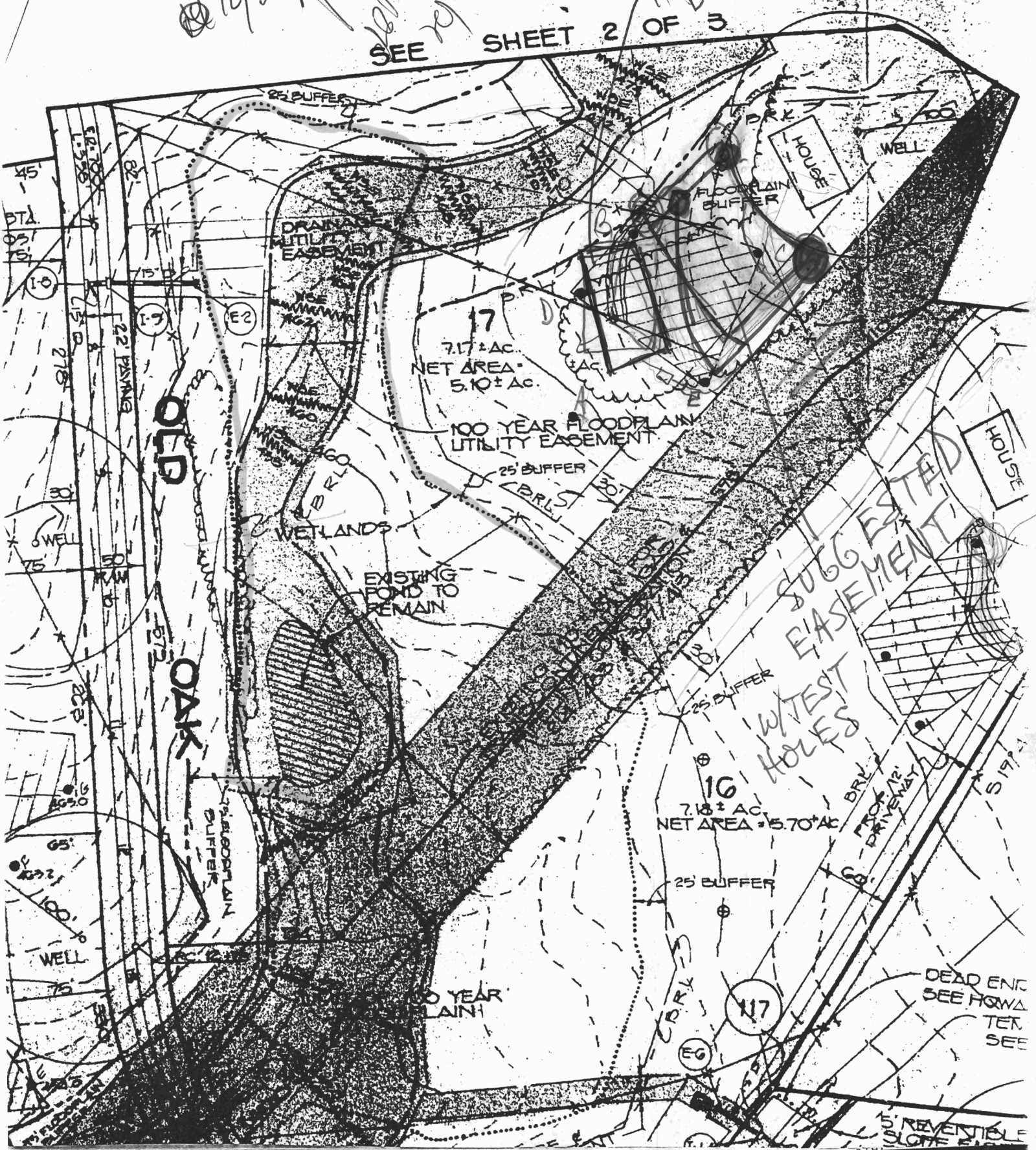
Kevin Wolf, Sanitarian
Well & Septic Program

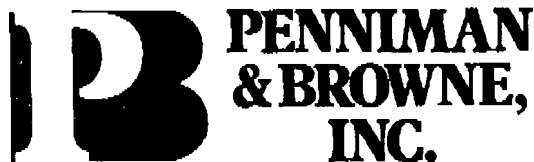
cc: Building Inspector's Office
Community Health Services
File

USED FOR TESTING ON 2/27/02

MR W/OWNERS
10/25/01

SEE SHEET 2 OF 3
Wells
Shelley
1/30/09
APPROX
HOUSE
DESIRED





CHEMISTS / ENGINEERS / INSPECTORS
INDUSTRIAL HYGIENE SERVICES
FOUNDED 1896

Prepared for:

Dennis
Fred C Dickson Co., Inc
P.O. Box 715
Mt. Airy, MD 21771

3115 Olk Oak Drive

Certificate of Analysis

5/30/2006

Sample Information

Sample Number	60002005-01	Matrix	Drinking Water
Sample ID	Grab 5/12/06 13:15	Sample Date/Time	05/12/06
Description		Sampler	Barbara Black

Analysis	Units	MDL	Results	Analyst	Date / Time Tested	Method
Total Coliforms			Positive	BAB	05/12/2006 17:30	ONPG-MMO-MUG
E-Coll			Negative	BAB	05/12/2006 17:30	ONPG-MMO-MUG
pH (Field)			7.10	BAB	05/12/2006 13:15	EPA 150.1
Temperature (Field)	C		22	BAB	05/12/2006 13:15	I.S.
Total Residual Chlorine (Field)	mg/L	0.1	<0.1	BAB	05/12/2006 13:15	SM4500Cl-G
Nitrate Nitrogen	mg/L as N	1	3.6	JT	05/30/2006 15:15	SM4500 NO3-D
Sand			absent	JT	05/15/2006 11:00	Visual
Turbidity	NTU	1	13.9	JT	05/13/2006 14:55	SM2130B

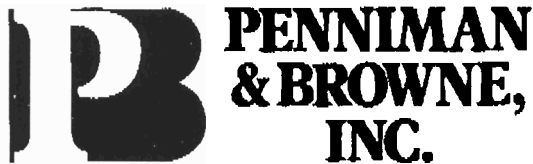
According to state regulations, the absence of coliform organisms indicate the water is bacteriologically of potable quality.

The maximum contaminant level allowed for nitrate in drinking water is 10.0 mg/L.

Jennifer E. Plazio - Office Administrator

I. Stephen Jaworsky, PhD, Laboratory Director

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**CHEMISTS / ENGINEERS / INSPECTORS
INDUSTRIAL HYGIENE SERVICES
FOUNDED 1896**

Prepared for:

Dennis
Fred C Dickson Co., Inc
P.O. Box 715
Mt. Airy, MD 21771

3115 Old Oak Drive

Certificate of Analysis

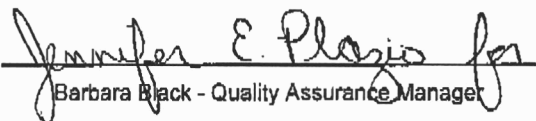
5/30/2006

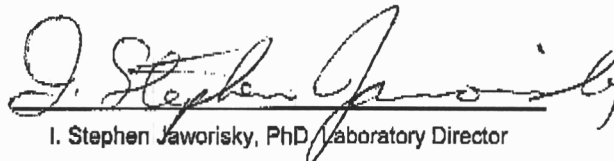
Sample Information

Sample Number	60002109-01	Matrix	Drinking Water
Sample ID	Butlers Pantry	Sample Date/Time	05/23/06
Description		Sampler	Daniel Horvath

Analysis	Units	MDL	Results	Analyst	Date / Time Tested	Method
Total Coliforms			Negative	BAB	05/23/2006 16:20	ONPG-MMO-MUG
E-Coli			Negative	BAB	05/23/2006 16:20	ONPG-MMO-MUG
Total Residual Chlorine (Field)	mg/L	0.1	<0.1	DH	05/23/2006 13:55	SM4500Cl-G

According to state regulations, the absence of coliform organisms indicate the water is bacteriologically of potable quality.


Barbara Black - Quality Assurance Manager


I. Stephen Jaworisky, PhD Laboratory Director

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CERTIFICATE OF ANALYSIS

Requester:
Mr. George Mamo
3115 Old Oak Drive
Ellicott City, Maryland 21042

S/O Number: 61050
Report Date: December 4, 2006

Property Sampled: 3115 Old Oak Drive

TRACE LABORATORIES
5 North Park Drive
Hunt Valley, MD 21030
Telephone: 410/252-7742
Telephone: 410/584-9099
Fax: 410/584-9117
Email:
tracelab@connext.net
www.tracelabs.com

County: Howard
Subdivision: Hawksfield Estates
Lot #: 17
Tax Map #: 16
Parcel #: 40

Date/Time Collected: December 4, 2006 at 10:10 am
Date/Time Received: December 4, 2006 at 2:05 pm

Sample Location: Powder Room Tap
Sampler ID: 7334JB
Samples Iced: Yes
Residual Cl₂ <0.1 mg/L: Yes

Well Tag Number: Well not observed
Well Condition: Well condition undetermined

Water Conditioning/Treatment: Sediment Filter, Neutralizer, Softener

PARAMETER	RESULT	METHOD	MCL	
Turbidity	<1.0 NTU	EPA 180.1	10 NTU	Pass

Heather R. Beam
Manager-Drinking Water Testing

MCL=Maximum Contamination Level

CERTIFICATE OF ANALYSIS



Requester:
Mr. George Mamo
3115 Old Oak Drive
Ellicott City, Maryland 21042

S/O Number: 61599
Report Date: January 12, 2007

Property Sampled: 3115 Old Oak Drive

County: Howard
Subdivision: Hawksfield Estates
Lot #: 17
Building Permit #: Not Provided

Tax Map #: 16
Parcel #: 40

Date/Time Collected: January 11, 2007 at 12:50 pm
Date/Time Received: January 11, 2007 at 1:52 pm

Sample Location: Pressure Tank Tap & Powder Room Tap
Sampler ID: 7334JB
Samples Iced: Yes
Residual Cl₂ <0.1 mg/L: Yes

Well Tag Number: Well not observed
Well Condition: Well condition undetermined

Water Conditioning/Treatment: Sediment Filter, Neutralizer, Softener

PARAMETER	RESULT	METHOD	MCL	
Turbidity(Raw)	2.4 NTU	EPA 180.1	10 NTU	Pass
Turbidity(Treated)	<1.0 NTU	EPA 180.1	10 NTU	Pass
Total Coliform	Absent	SM 9223B	Absent	Pass
E.coli	Absent	SM 9223B	Absent	Pass

Heather R. Beam
Manager-Drinking Water Testing

MCL=Maximum Contamination Level

Trace Laboratories, Inc.
Maryland

5 North Park Drive
Hunt Valley, MD 21030
Telephone: 410/252-7742
Telephone: 410/584-9099
Fax: 410/584-9117
Email: tracelab@connex.net
www.tracelabs.com

Maryland State Certified
Water Quality Laboratory
No. 318