C 1 1164 — SEQUENCE NO. (MDE USE ONLY)

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

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

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

COUNTY NUMBER A 516063

ST/CO USE ONLY DATE Received MM DD YY (8–13)

DATE WELL COMPLETED: MM 3 DD 3 YY 06 (15–20)

Depth of Well: 280' (TO NEAREST FOOT) (22–26) OK (60) 4/10/06

PERMIT NO. FROM "PERMIT TO DRILL WELL": Ho - 95 - 0239 (28–37)

OWNER Horton R. D. (last name, first name)

STREET OR RFD Heather Glen Way TOWN Clarksville Md

SUBDIVISION Turnbury Grove SECTION _____ LOT 27

WELL LOG
Not required for driven wells

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

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
Sand	0	60	
Gray Mica Rock	60	280	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED: yes [Y] no [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 S D 024

Joseph L Mayne
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: ___ D ___

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

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes [Y] (44) no [N] (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] (45–46) BENTONITE CLAY [BC] (45–46)

NO. OF BAGS 14 NO. OF POUNDS 1316

GALLONS OF WATER 84

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48–52 TOP) ft. to 48 (54–58 BOTTOM) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
ST (60–61)	6 (63–64)	64 (66–70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 (1–2)

DEPTH (nearest ft.) — EACH SCREEN

		from	to
1	Ho (8–9)	62 (11–15)	280 (17–21)
2	(23–24)	(26–30)	(32–36)
3	(38–39)	(41–45)	(47–51)

SLOT SIZE 1 _____ 2 _____ 3 _____

DIAMETER OF SCREEN _____ (NEAREST INCH) (56–60)

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74–76)

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

C 3 (1–2)

PUMPING TEST
HOURS PUMPED (nearest hour) 3 (8–9)

PUMPING RATE (gal. per min.) 15 (11–15)

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 24 (17–20) ft.

WHEN PUMPING 24 (22–25) ft.

TYPE OF PUMP USED (for test) (27)
- [A] air
- [P] piston
- [T] turbine
- [C] centrifugal
- [R] rotary
- [O] other (describe below)
- [J] jet
- [S] submersible

PUMP INSTALLED
DRILLER INSTALLED 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. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

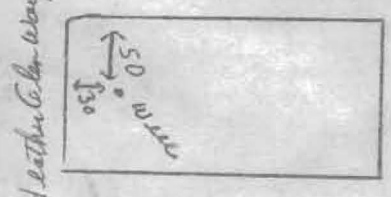
PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)
- [+] above (49)
- [–] below (49)

LAND SURFACE

2 (nearest foot) (50–51)

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)



DENV-CR00

COUNTY

EMERGENCY/TEMP NO. IF ANY

B 1 | 1487 | SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please type

523944

STATE PERMIT NUMBER 0239

HO – 95 – ~~0246~~

fill in this form completely

Date Received (APA) 01 20 06 (MM DD YY)

OWNER INFORMATION

Horton R. D.
Last Name Owner First Name

1370 Ricard Drive
Street or RFD

Rockville Md 20850
Town State Zip

DRILLER INFORMATION

Joseph L Mayne M S D 024
Driller's Name License No.

Joseph L Mayne Well Drilling
Firm Name

5512 Ridge Rd Mt. Airy Md 21771
Address

Joseph L. Mayne 1-6-06
Signature Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- I INDUSTRIAL, COMMERICIAL, DEWATERING
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

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 DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

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

APPROP. PERMIT NUMBER HO 2006 G 003

PERMIT No. HO – 95 – 0239

B 3 LOCATION OF WELL

Howard
COUNTY

Turnbury Grove
SUBDIVISION

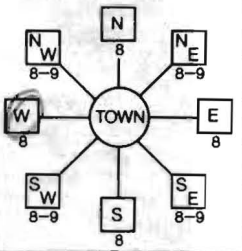
SECTION LOT 27

Clarksville
NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) ½ M I

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Heather Glen Way
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH N
WEST W 32 E EAST
S SOUTH

25
DISTANCE FROM ROAD

FT
ENTER FT OR MI

TAX MAP: 34 BLK: 11 PARCEL 77

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard A516063
COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED 2/6/06 2/6/07
CO SIGNATURE EXP. DATE

NORTH GRID 499000 EAST GRID 614000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
1. Well
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

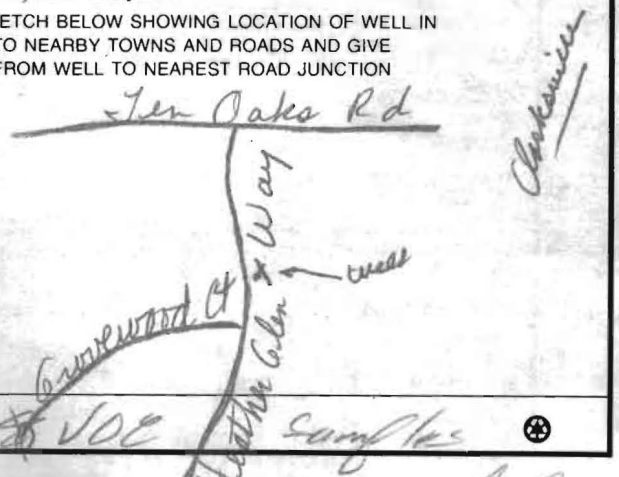
E 814

N 499

000
000

3/3/06
Y & G AM
VOC taken
Radium not taken

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



SPECIAL CONDITIONS
NOTE – APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

At well test, Radium & VOC Samples

DENV-Permit 97

② COUNTY

Page ____ of ____
Date 3-3-06

Review ____

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 95-0239
Location of property (road) Heather Glen Ways
Subdivision Turnbury Grove Lot 24 Block ____ Plat ____ Sec. ____
Well Driller Joseph Wayne Owner D.R. Horton.

Depth of well 280
Distance of measuring point (M.P.) above ground 2'
Static water level (S.W.L.) below M.P. 24'

I. High rate pumping -- reservoir drawdown

Time pump started 7:00 Pumping rate 15 gpm.
Total time 0 min to reach pumping water level 24 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)
7:15	24'	4 sec	N/A	15 gpm.
7:30	24	4		15
7:45	24	4		15
8:00	24	4		15
8:15	24	4		15
8:30	24	4		15
8:45	24	4		15
9:00	24	4		15
9:15	24	4		15
9:30	24	4		15
9:45	24	4		15
10:00	24	4		15

RD-224

RECEIVED

AUG 27 2014

HOWARD COUNTY HEALTH DEPT.

ENVIRONMENTAL HYGIENE PROGRAM

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2648

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

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: Fogle's Well Drilling LLC Telephone #: 410 795 5670
Address: PO Box 202
Woodbine, MD 21797

(Must circle one) Licensed Plumber (Licensed Well Driller) Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): David C. Fogle License# MSD226
*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: Williamsburg Group Telephone #: 410-977-3345
Subdivision: Preserves @ Clarksville Lot #: 27 Well Tag #: HO-95-0239 ✓
Site Address: 6231 Heather Glen Way
Clarksville, MD 21029

Submersible Pump Data		Pitless Adapter		Well Cap and Electric Conduit	
Make:	Grundfos	Make:	Campbell	Two piece watertight cap:	YES
Model #:	15SQE07-180	Model#:	N/A	Screened, vented well cap:	YES
Pump Capacity	7 GPM	Depth:	36" (36" min)	Cap secured to casing:	YES
Well Yield:	12 GPM	NSF/WSC approved:	YES	Conduit min 18" B.G.:	YES
Depth of well encountered at time of pump installation:	280 (feet)			Conduit secured to well cap:	YES

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 N/A

41" from base of well cap to pitless

Piping to house		House Connection	
Type:	1" poly pipe	PVC sleeve to undisturbed soil at wall penetration:	YES
PSI:	160 (160 psi min)	Length of sleeve (5' minimum from foundation):	6'
Depth of supply line:	60" (36" min)	Sleeve sealed properly:	YES

10" to 9" from base of well cap to observed grade

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.

Dave Fogle 8-26-14
Signature of company representative responsible for installation date

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

Date Insp. Requested: 8/27/14 Date Insp. Approved: 9/4/14 Inspector: RR

Inspection Data:	
Pitless adapter watertight & water supply line at least 36" below grade	✓
Two piece cap installed and attached to casing securely	✓
Elec. conduit extends at least 18" below grade/attached to cap properly	✓
Safety rope not outside of well cap/casing	✓
Correct well tag attached properly and casing 8" above finished grade	X – well tag missing as of 9/4/14
Water supply line sleeved adequately at house connection	✓
Adequate grout observed below pitless adapter	✓

12/10/14 – well tag in place on casing RR

Inspection required to verify that correct well tag is in place RR 9/4/14

(*) 9/8/14: Site inspection - well tag not in place. RR

12/9/14: Well tag reported to be on well. RR Verify well tag on casing before issuing U&O

Howard County Health Department

Bureau of Environmental Health
8930 Stanford Blvd., Columbia, MD 21046-2147
Main: 410-313-1774 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – JUNE 9, 2015

December 9, 2014

Homeowner
6231 Heather Glen Way
Clarksville, MD 21029

RE: The Preserve at Clarksville
6231 Heather Glen Way
Building Permit: B14000654
Well Permit: HO-95-0239

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **8/26/2014.** Final approval of the well line connection to the dwelling was granted on **12/9/2014.** The well construction was completed on **3/3/2006.** Water samples were collected on **11/17/2014 and 12/2/2014.**

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.

Gross Alpha and Beta samples were also collected on **9/23/2014**. Results showed a Gross Alpha level of **5.9 pCi/L** and **Gross Beta** level of **6.5 pCi/L.** The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year). At the time of testing and with respect to these parameters, the well water is safe for all uses.

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-95-0239. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311,* subject to a fine of up to $500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:
http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf

Approving Authority,

Robert Bricker, REHS/R.S., L.E.H.S.
Environmental Sanitarian
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File

Howard County
Health Department

Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046
(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

July 7, 2006

D. R. Horton, Inc.
1370 Picardi Drive
Rockville, Maryland 20850

RE: Water Sample Results
Lot 25 Turnbury Grove
HO – 95 – 0239

To Whom this May Concern:

During the recent "yield test" of the well serving the future Lot 25 (located on Heather Glen Way), a sample was collected for volatile organic compounds (VOC's) on March 3, 2006. This testing was performed to establish a baseline evaluation of the well water supply due to known VOC ground water contamination concerns previously documented (during the 1990's and earlier) in properties nearby this development.

Results from this sampling were free of all tested VOC's to the limit of detection for the test method employed. Similar findings were noted for the corresponding Field and Trip Blank samples. With respect to these parameters, the future well water supply is **currently** safe for all uses.

A copy of the VOC test report is enclosed for your records.

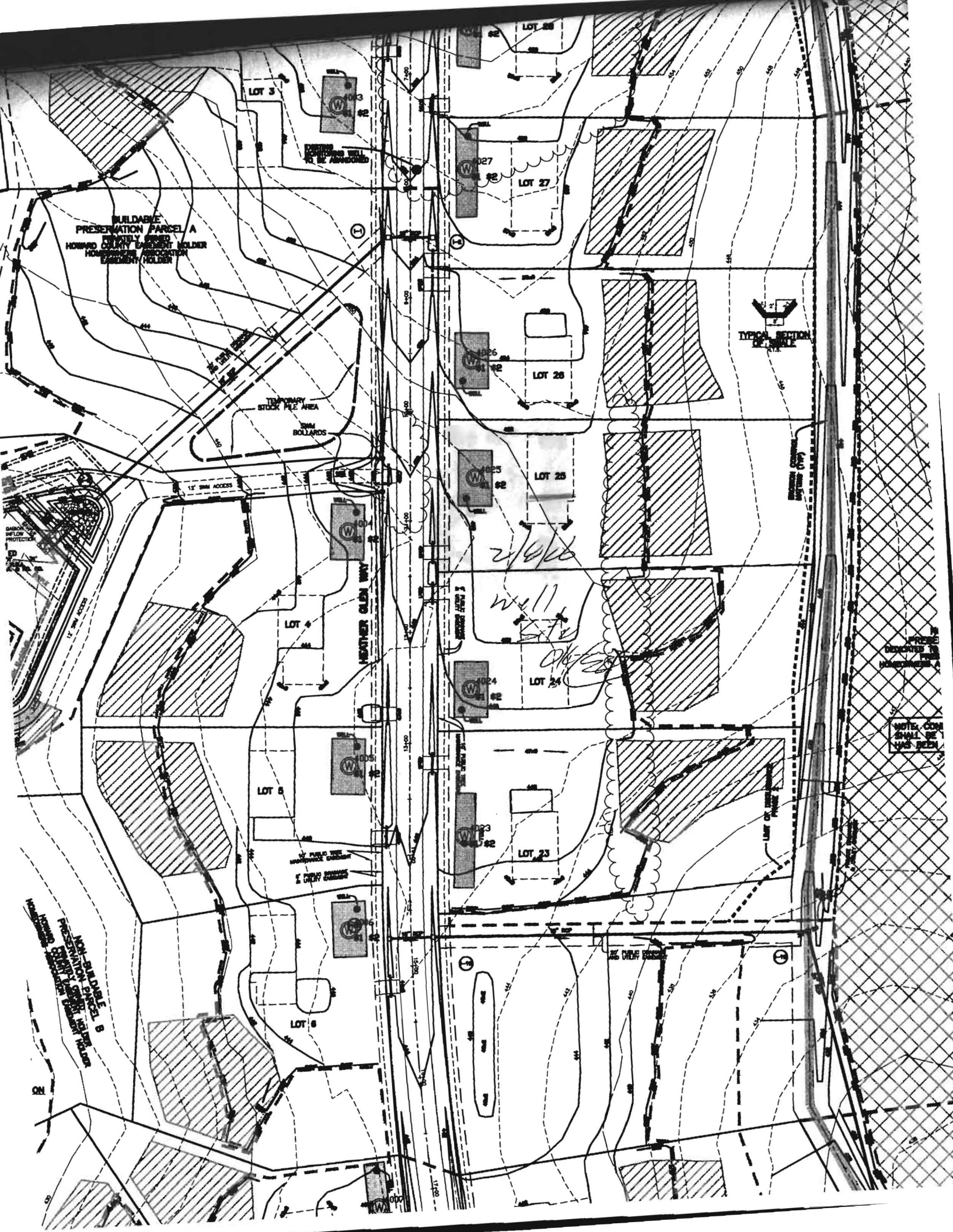
If questions should arise, you may contact Stuart Oster of the Well & Septic Program at (410) 313 – 1771 or me at (410) 313 – 1773.

Sincerely,

Bert Nixon

Bert Nixon, Assistant Director
Bureau of Environmental Health

Enclosure
cc: Lot 25 Turnbury Grove Property File


LOT 3
LOT 27
LOT 26
LOT 25
LOT 24
LOT 23
LOT 4
LOT 5
LOT 6
BUILDABLE PRESERVATION PARCEL A
HEATHER GLEN WAY
TEMPORARY STOCK PILE AREA
SWM BOLLARDS
12' SWM ACCESS
TYPICAL SECTION
NON-BUILDABLE PRESERVATION PARCEL B
2/6/06
well site OK

Howard County
Health Department

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

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

☑ The well site has been staked by Benchmark Engineering
(professional land surveyor or company employing professional land surveyors)
on 12-14-05 (date) and does not require a site inspection.

☐ The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 6/10/03

33 Lots for D.R. Horton
Sunbury Grove

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	97854	Account #:	4470
Reference:	Preserve at Clarksville Lot 27	Company:	Williamsburg Homes LLC
Location:	6231 Heather Glen Way Clarksville, MD 21029	Requested By:	Bob Corbett
		Source:	Well Water
Date/ Time Collected:	11/17/2014 1000	Site:	Pressure Tank
Date/Time Rec'd:	11/17/2014 1240	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	6.9
Collected By:	J. Yeager 6176JY	Well #:	HO-95-0239

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	2.0	MPN/ 100 ml	<1.0	SM18 9223	11/18/2014 / 1000 / LLO
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/18/2014 / 1000 / LLO
Nitrate	4.53	mg/L	10	601	11/18/2014 / 1315 / CRS
Turbidity	5.34	NTU	<10	SM18 2130B	11/18/2014 / 1400 / CRS
Sand	NS	mg/L	5	Visual/Gravimetric	11/18/2014 / 1400 / CRS

Bacteria FAIL
Others 'OK' RB 12/8/2014

NOTES

1. mg/L = milligrams per liter (also, parts per million)
2. MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
3. NS = None Seen (NS indicates less than 5 mg/L)
4. NTU = Nephelometric Turbidity Units
5. Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
6. ND:None Detected
7. pH tested in lab, chlorine level tested on site
8. Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
Building Permit # : 14000654

Date Reported: 11/18/2014

MD State Certification # 133

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	98037	Account #:	4470
Reference:	Preserve at Clarksville Lot 27	Company:	Williamsburg Homes LLC
Location:	6231 Heather Glen Way	Requested By:	Bob Corbett
	Clarksville, MD 21029	Source:	Well Water
Date/ Time Collected:	12/2/2014 1035	Site:	Laundry Room Utility Tap
Date/Time Rec'd:	12/2/2014 1145	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	7.0
Collected By:	J. Yeager 6176JY	Well #:	HO-95-0239

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	12/3/2014 / 0900 / LLO
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	12/3/2014 / 0900 / LLO

Bacteria OK RB 12/8/2014

NOTES

1. MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
2. Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
3. ND:None Detected
4. Visual well check: Sealed, vented cap
5. pH & Chlorine level tested on site

Reason for Test : HCHD

Date Reported: 12/3/2014

MD State Certification # 133

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	96365	Account #:	4470
Reference:	Preserve at Clarksville Lot 27	Company:	Williamsburg Homes LLC
Location:	6231 Heather Glen Way	Requested By:	Bob Corbett
	Clarksville, MD 21029	Source:	Well Water
Date/ Time Collected:	9/23/2014 1045	Site:	Pump Discharge
Date/Time Rec'd:	9/23/2014 1400	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	6.8
Collected By:	C. Holland 0547CH	Well #:	HO-95-0239

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Gross Alpha, Short Term	5.9	pCi/L	15	900.0	9/25/2014 / 1036 / MJN
Gross Beta, Short Term	6.5	pCi/L	50	900.0	9/25/2014 / 1036 / MJN
Radium-226	0.7	pCi/L	****	903.1	10/1/2014 / 1102 / MJN
Radium-228	<0.8	pCi/L	****	Ra-05	10/1/2014 / 1027 / SN
Gross Alpha, Long Term	5.4	pCi/L	15	900.0	9/30/2014 / 0658 / MJN
Gross Beta, Long Term	6.5	pCi/L	50	900.0	9/30/2014 / 0658 / MJN

'OK' JB 12/8/2014

NOTES

1. ****Radium 226 and Radium 228 combined have a reference of 5 piC/L
2. Long Term Gross Alpha Detection Limit: 1.4 pCi/L; Long Term Gross Beta Detection Limit: 2.1 pCi/L
3. pCi/L = picocuries per liter
4. Radium 226 Detection Limit: 0.2 pCi/L; Radium 228 Detection Limit: 0.8 pCi/L
5. Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
6. Short Term Gross Alpha Detection Limit: 1.4 pCi/L; Short Term Gross Beta Detection Limit: 2.0 pCi/L
7. ND:None Detected
8. Visual well check: Sealed, vented cap
9. pH & Chlorine level tested on site

Reason for Test : HCHD

Date Reported: 10/10/2014

MD State Certification # 133

Send Report To:

_____

_____

_____

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
TRACE ORGANICS SECTION
201 W. Preston Street, Baltimore, Maryland 21201
J. Mehsen Joseph, Ph.D., Director

Lab No. Date Received

96125 2 MAR-6 PM

Do not write above this line

LABORATORY ANALYSIS REQUEST

HOGLTG25331C5(A)&(B)

Bottle No: _____ **Plant/Site Name:** Turnberry Grove Lot 27 **County:** HOWARD

Sample Source: Heather Glen Way **Location:** HO-95-C239
Street Town or City (well no., lab sink, sample tap, etc.)

Sampler ID: 2 7 7 4 G C **PWSID:** ☐☐☐☐☐☐☐ **Plant ID:** ☐☐

Collector: G. Creighton 410 313 2775
(include telephone number)

Date Collected: 3 / 3 /2006 **Time Collected:** 10 a.m. _____ p.m.

Field Preserved: ☒ Yes ☐ No **Preservative Used:** ☒ 1:1 HCl+Ascorbic acid ☐ Na_2SO_4 ☐ 6 mg NH_4Cl

Sample Type:
- ☒ Drinking Water
- ☐ Community
- ☐ Non-Community
- ☒ Private
- ☐ Landfill
- ☐ Stream
- ☐ Sediment
- ☒ Source (Raw Water)
- ☐ Distribution (Treated)
- ☐ Water Treatment Plant POE
- ☒ Liquid
- ☐ Solid
- ☐ Other _____

Specify Program: ☒ SDWA ☐ NPDES ☐ CWA ☐ RCRA ☐ Consumer Products ☐ Other _____

Test Requested: ☒ Trihalomethanes ☒ Volatiles ☐ Semi-volatiles ☐ Haloacetic Acids

FIELD DATA :

pH	Free Cl	Total Cl
6.8	0.0	0.0

Field Blank Bottle No.: HOGLTG25331C FB(A)&(B)

Trip Blank Bottle No.: HOGLTG25331C TB(A)&(B)

Remarks: Full Drinking Water Scan including MTBE
RAW WATER TAKEN @ Yield test

Section Chief: Deborah Nolan-Dent **Date Reported:** 3/20/06

●Phone: (410) 767 - 5643 ●Fax: (410) 333 - 5237

Form Revised 12/00
DHMH 4362

SUBMITTER'S COPY

FOGLE'S WELL DRILLING
P.O. BOX 202
WOODBINE, MD 21797
443-609-4195

August 28, 2014

Howard County Health Department
8930 Stanford Dr
Columbia, MD 21045

Re: Preserves @ Clarksville Lot 27
6231 Heather Glen Way
Clarksville, MD 21029
Well Tag# HO 95-0239

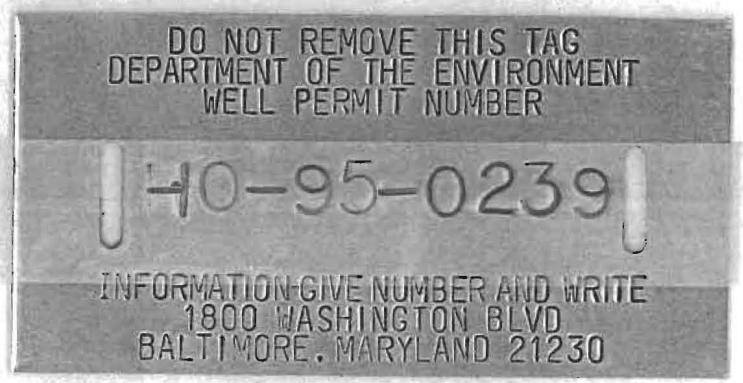
To whom it may concern:

Please be advised that Fogle's Well Drilling was working on Preserves at Clarksville Lot 27 for Williamsburg Homes and noticed the well tag is missing on the well. Fogle's is requesting a duplicate well tag# HO 95-0239 so that we can put it on the well casing for future identification.

Sincerely,

Dave Fogle

David C Fogle
Fogle's Well Drilling, LLC
MSD 226



State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
TRACE ORGANICS SECTION
201 W. Preston Street, Baltimore, MD 21201
John M. DeBoy, Dr. P.H., Director

Certificate of Analysis - Volatiles

Sample Name: 961252 HOGCTG2533105A **Method:** EPA 524.2
Date Analyzed: 03/17/06

Contaminants	DL*	MCL*	Result*
TRIHALOMETHANES			
Bromodichloromethane	0.5	na	ND
Bromoform	0.5	na	ND
Chloroform	0.5	na	ND
Dibromochloromethane	0.5	na	ND
TOTAL THMs	-	80	-
REGULATED			
Benzene	0.5	5	ND
Carbon Tetrachloride	0.5	5	ND
Chlorobenzene	0.5	100	ND
1,4-Dichlorobenzene	0.5	75	ND
1,1-Dichloroethene	0.5	7	ND
1,2-Dichloroethane	0.5	5	ND
1,2-Dichlorobenzene	0.5	600	ND
1,2-Dichloropropane	0.5	5	ND
cis-1,2-Dichloroethene	0.5	70	ND
trans-1,2-Dichloroethene	0.5	100	ND
Ethylbenzene	0.5	700	ND
Styrene	0.5	100	ND
Tetrachloroethene	0.5	5	ND
Trichloroethene	0.5	5	ND
1,1,1-Trichloroethane	0.5	200	ND
Toluene	0.5	1000	ND
Vinyl Chloride	0.5	2	ND
o-Xylene	0.5	na	ND
m+p-Xylene	1.0	na	ND
Total Xylenes	1.5	10000	ND
Methylene Chloride	0.5	5	ND
1,1,2-Trichloroethane	0.5	5	ND
1,2,4-Trichlorobenzene	0.5	70	ND

Contaminants	DL*	MCL*	Result*
UNREGULATED			
Dichlorodifluoromethane	0.5	na	ND
Chloromethane	0.5	na	ND
Bromomethane	0.5	na	ND
Chloroethane	0.5	na	ND
Trichlorofluoromethane	0.5	na	ND
1,1-Dichloroethane	0.5	na	ND
1,3-Dichlorobenzene	0.5	na	ND
Dibromomethane	0.5	na	ND
1,1-Dichloropropene	0.5	na	ND
trans-1,3-Dichloropropene	0.5	na	ND
1,1,2,2-Tetrachloroethane	0.5	na	ND
1,3-Dichloropropane	0.5	na	ND
2,2-Dichloropropane	0.5	na	ND
cis-1,3-Dichloropropene	0.5	na	ND
2-Chlorotoluene	0.5	na	ND
4-Chlorotoluene	0.5	na	ND
Bromobenzene	0.5	na	ND
1,3,5-Trimethylbenzene	0.5	na	ND
1,2,4-Trimethylbenzene	0.5	na	ND
1,2,3-Trichlorobenzene	0.5	na	ND
n-Propylbenzene	0.5	na	ND
n-Butylbenzene	0.5	na	ND
Naphthalene	0.5	na	ND
Hexachlorobutadiene	0.5	na	ND
Isopropylbenzene	0.5	na	ND
1,2,3-Trichloropropane	0.5	na	ND
1,2-Dibromo-3-Chloropropane	0.5	na	ND
p-Isopropyltoluene	0.5	na	ND
tert-Butylbenzene	0.5	na	ND
sec-Butylbenzene	0.5	na	ND
Bromochloromethane	0.5	na	ND
1,1,1,2-Tetrachloroethane	0.5	na	ND
1,2-Dibromoethane	0.5	na	ND
Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
tert-Amyl Methyl Ether (TAME)	0.5	na	ND

*All results are in parts per billion (ppb)
ND = Less than the detection limit
na = not applicable
e = estimated value

Section Chief: Deborah Miller-Jones Date Approved: 3/29/06

Phone: (410) 767-5896 ***Fax: (410) 225-9318***

Howard County
Health Department

7178 Columbia Gateway Drive, Columbia MD 21046
(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

February 8, 2006

MEMORANDUM

TO: Joseph L. Mayne Well Drilling
5512 Ridge Road
Mt. Airy, Maryland 21771
Faxed to 301-829-5384

FROM: Stuart Oster, R.S.
Groundwater Management Section Supervisor
Well and Septic Program

RE: File Number: P-05-013
Title: Turnbery Grove

The Health Department requires that all the wells in this subdivision be tested for radium and V.O.C.'s (Volatile Organic Contaminants). The optimum time to sample would be when the yield test is being completed. When contacting this office about the yield test, please mention that these water test need to be collected. Also, attached is a letter dated November 21, 2005 from Bert Nixon further explaining the radium testing.

Cc: D. R. Horton, Inc.
File

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
TRACE ORGANICS SECTION
201 W. Preston Street, Baltimore, MD 21201
John M. DeBoy, Dr. P.H., Director

Certificate of Analysis - Volatiles

Sample Name: 961252 FB
Date Analyzed: 03/17/06
Method: EPA 524.2

Contaminants	DL*	MCL*	Result*
TRIHALOMETHANES			
Bromodichloromethane	0.5	na	ND
Bromoform	0.5	na	ND
Chloroform	0.5	na	ND
Dibromochloromethane	0.5	na	ND
TOTAL THMs	-	80	-
REGULATED			
Benzene	0.5	5	ND
Carbon Tetrachloride	0.5	5	ND
Chlorobenzene	0.5	100	ND
1,4-Dichlorobenzene	0.5	75	ND
1,1-Dichloroethene	0.5	7	ND
1,2-Dichloroethane	0.5	5	ND
1,2-Dichlorobenzene	0.5	600	ND
1,2-Dichloropropane	0.5	5	ND
cis-1,2-Dichloroethene	0.5	70	ND
trans-1,2-Dichloroethene	0.5	100	ND
Ethylbenzene	0.5	700	ND
Styrene	0.5	100	ND
Tetrachloroethene	0.5	5	ND
Trichloroethene	0.5	5	ND
1,1,1-Trichloroethane	0.5	200	ND
Toluene	0.5	1000	ND
Vinyl Chloride	0.5	2	ND
o-Xylene	0.5	na	ND
m+p-Xylene	1.0	na	ND
Total Xylenes	1.5	10000	ND
Methylene Chloride	0.5	5	ND
1,1,2-Trichloroethane	0.5	5	ND
1,2,4-Trichlorobenzene	0.5	70	ND

Contaminants	DL*	MCL*	Result*
UNREGULATED			
Dichlorodifluoromethane	0.5	na	ND
Chloromethane	0.5	na	ND
Bromomethane	0.5	na	ND
Chloroethane	0.5	na	ND
Trichlorofluoromethane	0.5	na	ND
1,1-Dichloroethane	0.5	na	ND
1,3-Dichlorobenzene	0.5	na	ND
Dibromomethane	0.5	na	ND
1,1-Dichloropropene	0.5	na	ND
trans-1,3-Dichloropropene	0.5	na	ND
1,1,2,2-Tetrachloroethane	0.5	na	ND
1,3-Dichloropropane	0.5	na	ND
2,2-Dichloropropane	0.5	na	ND
cis-1,3-Dichloropropene	0.5	na	ND
2-Chlorotoluene	0.5	na	ND
4-Chlorotoluene	0.5	na	ND
Bromobenzene	0.5	na	ND
1,3,5-Trimethylbenzene	0.5	na	ND
1,2,4-Trimethylbenzene	0.5	na	ND
1,2,3-Trichlorobenzene	0.5	na	ND
n-Propylbenzene	0.5	na	ND
n-Butylbenzene	0.5	na	ND
Naphthalene	0.5	na	ND
Hexachlorobutadiene	0.5	na	ND
Isopropylbenzene	0.5	na	ND
1,2,3-Trichloropropane	0.5	na	ND
1,2-Dibromo-3-Chloropropane	0.5	na	ND
p-Isopropyltoluene	0.5	na	ND
tert-Butylbenzene	0.5	na	ND
sec-Butylbenzene	0.5	na	ND
Bromochloromethane	0.5	na	ND
1,1,1,2-Tetrachloroethane	0.5	na	ND
1,2-Dibromoethane	0.5	na	ND
Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
tert-Amyl Methyl Ether (TAME)	0.5	na	ND

*All results are in parts per billion (ppb)
ND = Less than the detection limit
na = not applicable
e = estimated value

Section Chief: Deborah Nuzum-Jurk Date Approved: 3/20/06

Phone: (410) 767-5896 Fax: (410) 225-9318

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
TRACE ORGANICS SECTION
201 W. Preston Street, Baltimore, MD 21201
John M. DeBoy, Dr. P.H., Director

Certificate of Analysis - Volatiles

Sample Name: 961252 TB
Date Analyzed: 03/17/06
Method: EPA 524.2

Contaminants	DL*	MCL*	Result*
TRIHALOMETHANES			
Bromodichloromethane	0.5	na	ND
Bromoform	0.5	na	ND
Chloroform	0.5	na	ND
Dibromochloromethane	0.5	na	ND
TOTAL THMs	-	80	-
REGULATED			
Benzene	0.5	5	ND
Carbon Tetrachloride	0.5	5	ND
Chlorobenzene	0.5	100	ND
1,4-Dichlorobenzene	0.5	75	ND
1,1-Dichloroethene	0.5	7	ND
1,2-Dichloroethane	0.5	5	ND
1,2-Dichlorobenzene	0.5	600	ND
1,2-Dichloropropane	0.5	5	ND
cis-1,2-Dichloroethene	0.5	70	ND
trans-1,2-Dichloroethene	0.5	100	ND
Ethylbenzene	0.5	700	ND
Styrene	0.5	100	ND
Tetrachloroethene	0.5	5	ND
Trichloroethene	0.5	5	ND
1,1,1-Trichloroethane	0.5	200	ND
Toluene	0.5	1000	ND
Vinyl Chloride	0.5	2	ND
o-Xylene	0.5	na	ND
m+p-Xylene	1.0	na	ND
Total Xylenes	1.5	10000	ND
Methylene Chloride	0.5	5	ND
1,1,2-Trichloroethane	0.5	5	ND
1,2,4-Trichlorobenzene	0.5	70	ND

Contaminants	DL*	MCL*	Result*
UNREGULATED			
Dichlorodifluoromethane	0.5	na	ND
Chloromethane	0.5	na	ND
Bromomethane	0.5	na	ND
Chloroethane	0.5	na	ND
Trichlorofluoromethane	0.5	na	ND
1,1-Dichloroethane	0.5	na	ND
1,3-Dichlorobenzene	0.5	na	ND
Dibromomethane	0.5	na	ND
1,1-Dichloropropene	0.5	na	ND
trans-1,3-Dichloropropene	0.5	na	ND
1,1,2,2-Tetrachloroethane	0.5	na	ND
1,3-Dichloropropane	0.5	na	ND
2,2-Dichloropropane	0.5	na	ND
cis-1,3-Dichloropropene	0.5	na	ND
2-Chlorotoluene	0.5	na	ND
4-Chlorotoluene	0.5	na	ND
Bromobenzene	0.5	na	ND
1,3,5-Trimethylbenzene	0.5	na	ND
1,2,4-Trimethylbenzene	0.5	na	ND
1,2,3-Trichlorobenzene	0.5	na	ND.
n-Propylbenzene	0.5	na	ND
n-Butylbenzene	0.5	na	ND
Naphthalene	0.5	na	ND
Hexachlorobutadiene	0.5	na	ND
Isopropylbenzene	0.5	na	ND
1,2,3-Trichloropropane	0.5	na	ND
1,2-Dibromo-3-Chloropropane	0.5	na	ND
p-Isopropyltoluene	0.5	na	ND
tert-Butylbenzene	0.5	na	ND
sec-Butylbenzene	0.5	na	ND
Bromochloromethane	0.5	na	ND
1,1,1,2-Tetrachloroethane	0.5	na	ND
1,2-Dibromoethane	0.5	na	ND
Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
tert-Amyl Methyl Ether (TAME)	0.5	na	ND

*All results are in parts per billion (ppb)
ND = Less than the detection limit
na = not applicable
e = estimated value

Section Chief: Deborah Miller-Jirik Date Approved: 3/20/06

Phone: (410) 767-5896 Fax: (410) 225-9318