

C1 4060

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

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED MM DD YY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER, STREET OR RFD, SUBDIVISION, TOWN, SECTION, LOT

WELL LOG table with columns for DESCRIPTION, FEET (FROM, TO), and check if water bearing. Includes handwritten entries: overburden 0-3', soft sand 3'-35', Gmy rock 35'-300', Hot water 53, 130, 210.

GROUTING RECORD: WELL HAS BEEN GROUTED (N), TYPE OF GROUTING MATERIAL (CM), NO. OF BAGS (14), NO. OF POUNDS (84), GALLONS OF WATER (84), DEPTH OF GROUT SEAL (0-41 ft).

CASING RECORD: casing types (ST, CO, PL, OT), MAIN CASING TYPE (12), Nominal diameter (6), Total depth (41).

OTHER CASING (if used) table with columns for diameter and depth.

SCREEN RECORD: screen type (ST, BR, HO, PL, OT).

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

CIRCLE APPROPRIATE LETTER: A (well abandoned), E (electric log), P (test well converted).

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT...

DRILLERS LIC. NO. 1 MWD 120, DRILLERS SIGNATURE, LIC. NO. 1 D

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

DEPTH (nearest ft.) table with columns for casing and screen diameters and depths.

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER): GRAVEL PACK, TELESCOPE CASING, LOG INDICATOR, OTHER DATA.

PUMPING TEST: C3, HOURS PUMPED (3), PUMPING RATE (15.78), METHOD USED TO MEASURE PUMPING RATE (Watch i Bucket), WATER LEVEL (19 ft before, 45 ft when pumping), TYPE OF PUMP USED (S - submersible).

PUMP INSTALLED: DRILLER INSTALLED PUMP (YES), CAPACITY: GALLONS PER MINUTE (31-35), PUMP HORSE POWER (37-41), PUMP COLUMN LENGTH (43-47), CASING HEIGHT (7 ft below land surface).

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). Includes handwritten distances: N 59010759, W 07656333.

B 1	3801	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 533282 please type	STATE PERMIT NUMBER HO-95-1932 <small>70 fill in this form completely 79</small>
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OWNER INFORMATION

Date Received (APA) 6/7/2010
8 MM DD YY 13

Upchurch Don
15 Last Name Owner First Name 34

457 Old Orchard Circle
36 Street or RFD 55

Millersville MD 21108
57 Town 70 State 72 Zip 76

LOCATION OF WELL

Howard
8 COUNTY 21

Fulton Manor II
23 SUBDIVISION 42

SECTION 44 46 LOT 7 48 50
SECTION 44 46 LOT 48 50

Highland
52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 1 M I
73 76 77 78

DRILLER INFORMATION

Sandy B. Cochran M W D 120
76 Driller's Name License No. 81

G. Edgar Harr Sons' Corp.
Firm Name

12047 Falls Road, Cockeysville 21030
Address

Sandy B. Cochran 6/2/10
Signature Date

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

Pleasant View Drive
11 NEAR WHAT ROAD 30

45
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

4
34 DISTANCE FROM ROAD ENTER FT OR MI 38 39

TAX MAP: 40 BLK: 6 PARCEL 205

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5
8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 750
14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

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 (13) A522420
COUNTY NAME COUNTY NO.

STATE SIGNATURE _____ INSERT S _____
41

DATE ISSUED 6/21/2010 Brian Baker 6/21/2011
43 MM DD YY 48 CO SIGNATURE EXP. DATE

NORTH GRID 490 000 EAST GRID 817 000
50 55 57 63

APPROXIMATE DEPTH OF WELL 300 FEET
24 28

APPROXIMATE DIAMETER OF WELL 6 INCH
NEAREST INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

- well
-
-

WRITE THE BOX NUMBER FROM THE MAP HERE

E 817
000

N 490
000

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)

CABLE REVERSE-ROTary DRIVE-POINT
37 other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL

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) _____

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

N ↑

Pleasant View Dr.

Hallshop Rd.

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

APPROX. PERMIT NUMBER _____

PERMIT No. HO-95-1932
70 71 72 73 74 75 76 77 78 79

B 1 6944
1 2 3 6

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

10-95-1666
70 fill in this form completely 79

529506 please type

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13
Upchurch Don
15 Last Name Owner First Name 34
457 Old Orchard Circle
36 Street or RFD 55
Millersville MD 21108
57 Town 70 State 72 Zip 76

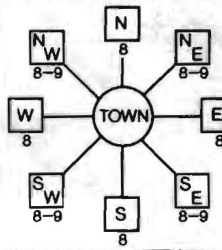
B 3 Howard LOCATION OF WELL

8 COUNTY 21
Fulton Manor II
23 SUBDIVISION 42
SECTION 44 46 LOT 7 48 50
Highland
52 NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) 1 M I
73 76 77 78

DRILLER INFORMATION

Michale D. Isom M S D 162
Driller's Name 76 License No. 81
G. Edgar Harr Sons' Corp.
Firm Name
12047 Falls Road, Cockeysville 21030
Address
Signature Date
6/27/08

B 4
1 2
DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Pleasant View Drive

11 NEAR WHAT ROAD 30
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NORTH
WEST EAST
SOUTH
34 200 37
DISTANCE FROM ROAD FT
ENTER FT OR MI 38 39
TAX MAP: 40 BLK: 6 PARCEL 205

B 2 WELL INFORMATION

1 2
APPROX. PUMPING RATE (GAL. PER MIN.) 5 8 12
750
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME Howard COUNTY NO. AS20877
STATE SIGNATURE
DATE ISSUED 8/15/08
43 MM DD YY 48 CO SIGNATURE EXP/DATE 8/15/09
NORTH GRID 490 000 EAST GRID 817 000
50 55 57 63

APPROXIMATE DEPTH OF WELL 300 FEET
24 28
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 DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL
 - 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 DEEPEIN AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52

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 817
N 490

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



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

APPROP. PERMIT NUMBER G
PERMIT No. 10-95-1666
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

HARR WELL DRILLING

12047 FALLS ROAD
COCKEYSVILLE, MD 21030
410-252-4588

HOWARD COUNTY WELL YIELD TEST REPORT

Date Test Performed: 10-07-10
Address: Pleasant View Drive
Owner: Don Upchurch
Well Depth: 300 Ft

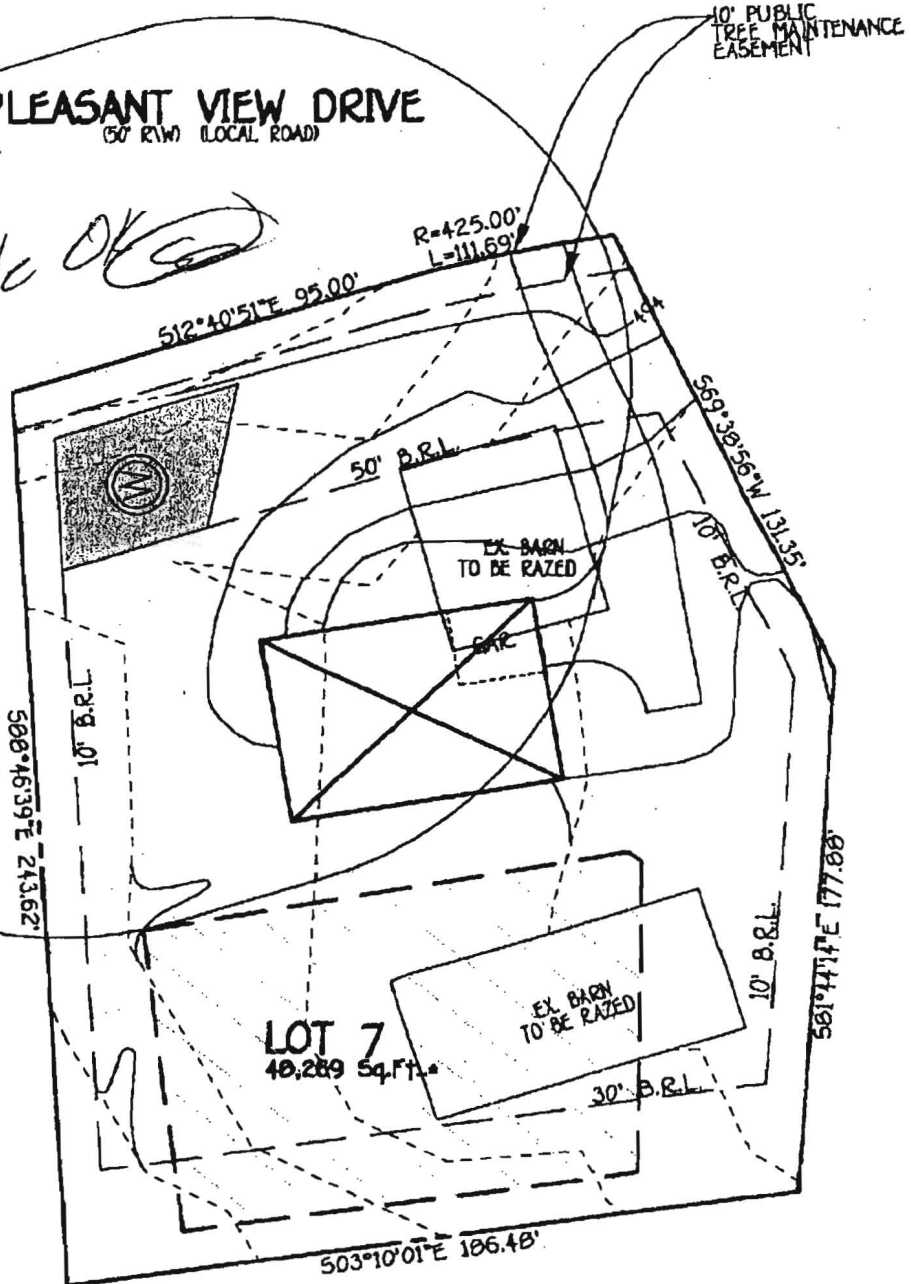
Permit Number: HO-95-1932
Subdivision: Fulton Manor II L#7
Election District:
Static Water Level: 19 Ft

Time	Water Level	PSI Existing Pump	Pumping Rate Seconds to fill 5 Gallon bucket	Calculated Flow-Gallons Per Minute
0800	19 ft		17 sec	17.64
0815	32		17	17.64
0830	45		17	17.64
0845	45		17	17.64
0900	45		19	15.78
0915	45		19	15.78
0930	45		19	15.78
0945	45		19	15.78
1000	45		19	15.78
1015	45		19	15.78
1030	45		19	15.78
1045	45		19	15.78
1100	45		19	15.78



PLEASANT VIEW DRIVE
(50' R/W) (LOCAL ROAD)

8/15/08
well site OK



10' PUBLIC TREE MAINTENANCE EASEMENT

Exhibit to Accompany
Well Permit
Lot 7
Fulton Manor II
Lots 2 Thru 7 &
Buildable Preservation Parcel 'B'
Tax Map: 40 Grid: 6 Parcel: 205 & 94
Election District
Howard County, Maryland
Date: June 5, 2008
Scale: 1"=50'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10701 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
1989 001 - 2005

K:\SOSK\PROJ\30793\dwg\30793 Fulton Manor II Phase 2 Lot 7 Well Exhibit.dwg, 6/9/2008 1:37:33 PM

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 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: Trinity Quality Homes Inc Telephone #: 410-480-0023
Address: 3625 Park Ave #301
Ellicott City MD 21043

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:

Name (Print): Michael Bowersox License# 11202 *

*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: Trinity Quality Homes Inc Telephone #: 410-480-0023
Subdivision: Fulton Manor Lot #: 7 Well Tag #: HO-95-1932
Site Address: 12319 Pleasant View Dr
Highland MD 20777

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>M yes</u>	Make: <u>American brandy</u>	Two piece watertight cap: <u>yes</u>
Model #: <u>25752-12 plus-p4-2</u>	Model #: <u>LF200</u>	Screened, vented well cap: <u>yes</u>
Pump Capacity <u>12</u> GPM	Depth: <u>yes</u> (36" min)	Cap secured to casing: <u>yes</u>
Well Yield: <u>15</u> GPM	NSF/WSC approved: <u>yes</u>	Conduit min 18" B.G.: <u>yes</u>
Depth of well encountered at time of pump installation: <u>300</u> (feet)	Conduit secured to well cap: <u>yes</u>	
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4		
Torque arrestors, <u>Cable guards</u> , or other acceptable method used- Must circle one		
Safety rope, if used, attached to brass rope adapter or other acceptable method <u>inside of well casing</u> <u>NO</u>		

Piping to house
Type: plastic black
PSI: yes (160 psi min)
Depth of supply line: yes (36" min)

House Connection
PVC sleeve to undisturbed soil at wall penetration: yes
Length of sleeve (5' minimum from foundation): 10ft
Sleeve sealed properly: yes

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

date

6-10-14

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

Date Insp. Requested: 5/8/14 Date Insp. Approved: _____ Inspector: (KW)
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 3" above finished grade ✓
Water supply line sleeved adequately at house connection ✓
Adequate grout observed below pitless adapter ✓

* Missing
nut from Bolt
on cap.
2/4/15 -
Bolts/cap secure
per Sara Collins.

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 Piping

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Ellicott City MD 21043

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

License # and name of individual responsible for the field installation:

Name (Print): Michael Bowersox License# 11202 *

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Name of Property Owner: Trinity Quality Homes Inc Telephone #: 410-480-0023
Subdivision: Fulton Manor Lot #: 7 Well Tag #: HO-95-1932
Site Address: 12319 Pled Sant View Dr
Highland MD 20777

Submersible Pump Data

Make: M.yers
Model #: 25752-12 plus-p4-2
Pump Capacity 12 GPM
Well Yield: 15 GPM

Pitless Adapter

Make: American branby
Model #: LF200
Depth: yes (36" min)
NSF/WSC approved: yes

Well Cap and Electric Conduit

Two piece watertight cap: yes
Screened, vented well cap: yes
Cap secured to casing: yes
Conduit min 18" B.G.: yes
Conduit secured to well cap: yes

Depth of well encountered at time of pump installation: 300 (feet)

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 NO

Piping to house

Type: plastic black
PSI: yes (160 psi min)
Depth of supply line: yes (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: yes
Length of sleeve (5' minimum from foundation): 10ft
Sleeve sealed properly: yes

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

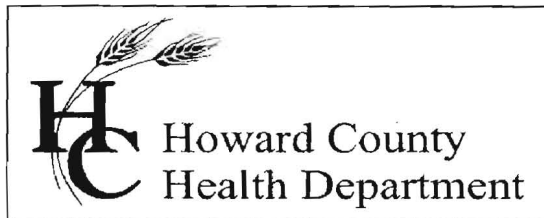
date

6-10-14

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

Date Insp. Requested: _____ Date Insp. Approved: _____ Inspector: _____

- 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 _____
Water supply line sleeved adequately at house connection _____
Adequate grout observed below pitless adapter _____



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](https://twitter.com/HowardCoHealthDep)

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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – 6 months from letter date

February 4, 2015

Homeowner
12319 Pleasant View Drive
Highland, MD 20777

**RE: Fulton Manor II, Lot #7
12319 Pleasant View Drive
Building Permit: B14000628
Well Permit: HO-95-1932**

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 **7/9/2014**. Final approval of the well line connection to the dwelling was granted on **2/4/2015**. The well construction was completed on **10/7/2010**. Water samples were collected on **8/19/2014** and **1/23/2015**.

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 **9/19/2014**. Results showed a Gross Alpha level of **6.1 ± 1.8 pCi/L** and **Gross Beta** level of **9.4 ± 1.7 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-95-1932. 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,

Hank Oswald

Hank Oswald, L.E.H.S.
Bureau of Environmental Health
Well & Septic Program

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



TRACE LABORATORIES, INC
 5 North Park Drive
 Hunt Valley, MD 21030 USA
 Telephone: 410/584-9099 / Fax: 410/584-9117
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

S/O Number: 94163

Trinity Homes/TBI Homes
 3675 Park Avenue, Suite 301
 Ellicott City, Maryland 21043

Report Date: September 3, 2014

Property Sampled: 12319 Pleasant View Drive, 20759
Sample Location: Wellhead (After Purging)
Residual Chlorine: <0.1 mg/L

Building Permit #: Not Provided
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard **Subdivision:** Fulton Manor II **Lot #:** 7

Date/Time Collected in Field: August 19, 2014 11:37 am

Date/Time Received in Lab: August 19, 2014 2:10 pm

Well Tag #: HO-95-1932

Well Condition: 2-Piece Cap, Removed for Sampling

Water Treatment/Conditioning: None

PARAMETER	METHOD	MCL (pCi/L)	RESULT (pCi/L)	COMMENT
✓ Gross Alpha, Short-Term	EPA 900.0	15	6.1 ± 1.8	Pass
✓ Gross Beta, Short-Term	EPA 900.0	50	9.4 ± 1.7	Pass
✓ Gross Alpha, Long-Term	EPA 900.0	15	5.5 ± 1.8	Pass
✓ Gross Beta, Long-Term	EPA 900.0	50	10.6 ± 1.8	Pass
✓ Radium 226	EPA 903.1	5 pCi/L Combined	1.4 ± 0.3	Pass
Radium 228	EPA Ra-05		1.5 ± 0.7	

2/4/15 - H O.

The results in this report relate only to those items tested. If any additional information or clarification of this report is required, please contact us. This test report shall not be reproduced except in full without the written approval of Trace Laboratories Inc.

Katherine C. Higgs

 Katherine C. Higgs
 Manager - Drinking Water Testing



TRACE LABORATORIES, INC
 5 North Park Drive
 Hunt Valley, MD 21030 USA
 Telephone: 410/584-9099 / Fax: 410/584-9117
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

S/O Number: 97963

Trinity Homes/TBI Homes
 3675 Park Avenue, Suite 301
 Ellicott City, Maryland 21043

Report Date: January 26, 2015

Property Sampled: 12319 Pleasant View Drive, 20759
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B14000628
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard

Subdivision: Fulton Manor

Lot #: 7

Date/Time Collected in Field: January 23, 2015 2:49 pm

Date/Time Received in Lab: January 23, 2015 4:23 pm

Well Tag #: HO-95-1932

Well Condition: 2-Piece Cap, 2 Bolts Missing, 1 Bolt Loose, Cap Slightly Loose

Water Treatment/Conditioning: N/A – Raw Sample

PARAMETER	METHOD	MCL/*SMCL	RESULT	COMMENT
Total Coliform	SM 9223B	Absent	Absent	Pass
<i>E. coli</i>	SM 9223B	Absent	Absent	Pass
Nitrate	SM 4500-NO3D	10 mg/L as N	1.9 mg/L as N	Pass
Turbidity	EPA 180.1	10 NTU	<1.0 NTU	Pass
pH (Field)	SM 4500-H ⁺ B	*6.5-8.5 Units	6.0 Units	***
Sand		Absent	Absent	Pass

21415-40.

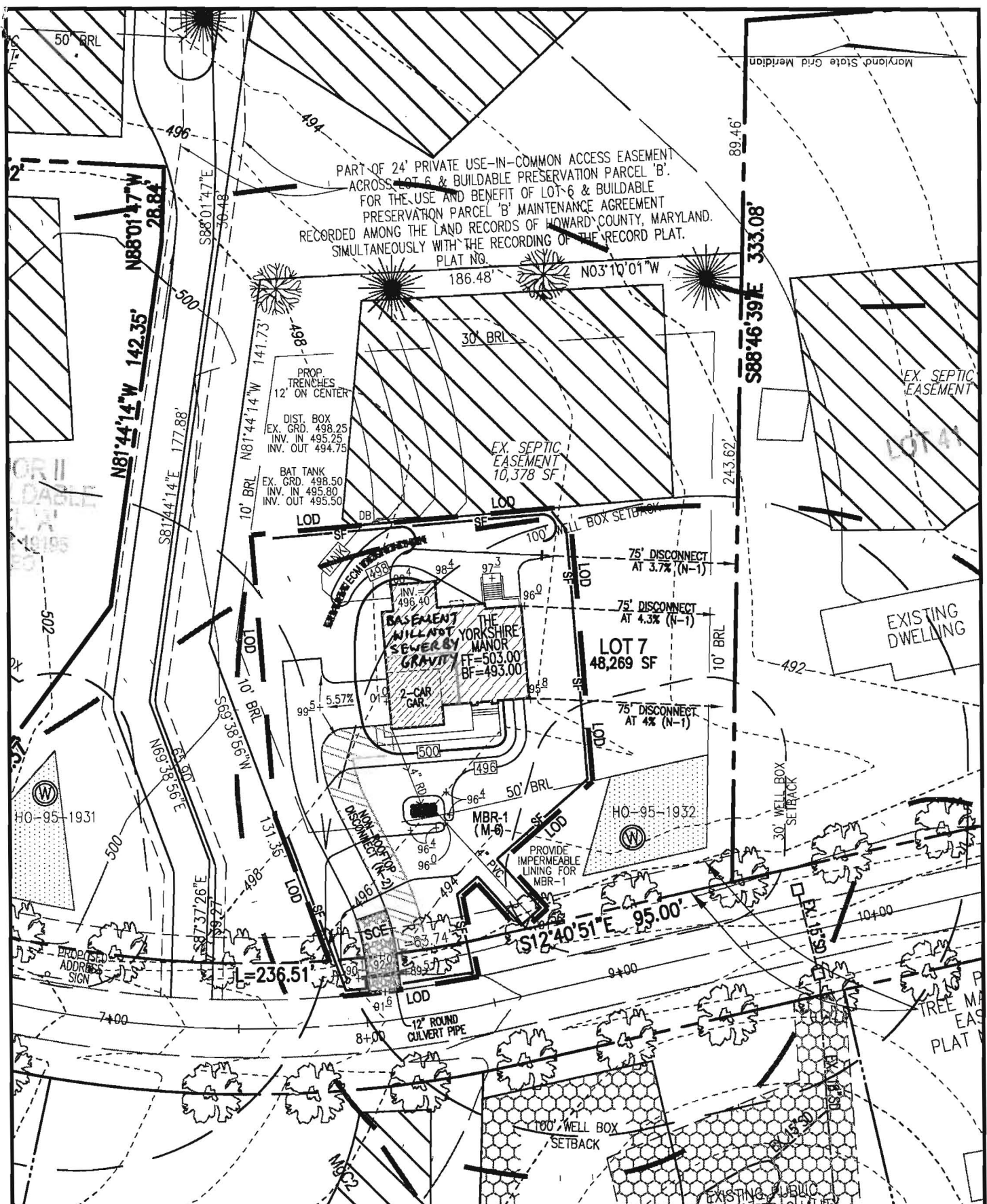
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Katherine C. Higgs
 Katherine C. Higgs
 Manager – Drinking Water Testing

MCL: Maximum Contamination Level, an enforceable level established by the EPA

*SMCL: Secondary Maximum Contamination Level, a level recommended by the EPA

***A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.



THE EXISTING WELL SHOWN ON LOT 7 TAG NO. 95-1932 HAS BEEN FIELD LOCATED BY ROBERT H. VOGEL ENGINEERING, INC., AND IS ACCURATELY SHOWN.

BUILDING OF LOT 7 FLOOR AREAS:
 BASEMENT FLOOR AREA: 1770
 FIRST FLOOR AREA: 1835
 SECOND FLOOR AREA: 1690
 BEDROOMS: 4

STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED BY ONE MICRO-BIORETENTION FACILITY (M-6), ROOFTOP DISCONNECTS (N-1), AND NON-ROOFTOP DISCONNECTS (N-2).

BUILDING PERMIT NO.

- NON-ROOFTOP DISCONNECT (N-2)
- PROPOSED MICRO-BIORETENTION FACILITY (M-6)
- DRAINAGE AREA TO MICRO-BIORETENTION (M-6) (PER F-08-102)
- DRAINAGE AREA TO ROOFTOP DISCONNECT (N-1) (PER F-08-102)
- ROOF TOP DISCONNECT (N-1)
- ROOF DRAIN TO MICRO-BIORETENTION

SCALE: 1"=50'
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: JANUARY 2014
 PROJECT #: 13-33
 SHEET#: 1 OF 2

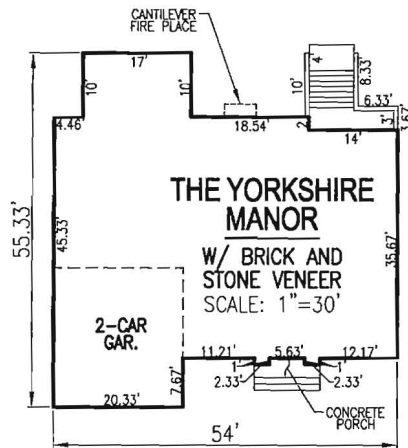
PLOT PLAN
FULTON MANOR II
LOT 7

REF: F-08-102
 TAX MAP 40 PARCEL 205
 BLOCK 6
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

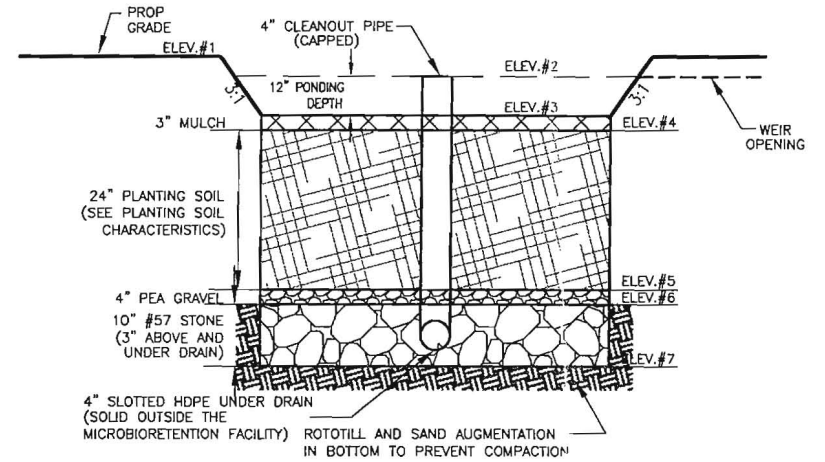
ADDRESS
12319 PLEASANT VIEW DRIVE
 FULTON, MD 20759
 F-08-102

OWNER
 TRINITY QUALITY HOMES, INC.
 3675 PARK AVENUE
 SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

ROBERT H. VOGEL
ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961



MBR-1
 ROOFTOP = 630 SF
 $P_e = 1" \quad R_v = 0.95$
 $ESDV = A(P_e)(R_v)/12 =$
 $ESDV = 630 \text{ SF}(1")(0.95)/12 = 50 \text{ CF}$



DETAIL - MICRO-BIORETENTION (M-6)
 NOT TO SCALE

MICRO-BIORETENTION FACILITY ELEVATIONS (M-6)											
LOT #	FACILITY	1	2	3	4	5	6	7	4" INV.	4" INV. OUTFALL	FACILITY SIZE
LOT 7	MBR-1 (M-6)	496.40	496.00	495.00	494.75	492.75	492.42	491.59	491.84	491.56	50 CF

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Material	Specification	Size	Notes
Planting soil (2' to 4' deep)	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (20%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel; ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone; washed cobbles	stone: 2" to 5"	
Geotextile	AASHTO M-43	n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 75R, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center; 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4-inch polyethylene hardware cloth.
Poured in place concrete (if required)	MSHA Mix No. 3; $F_c = 3500$ psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-A61-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved. Slab or level standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350 R09; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressures); and analysis of potential cracking.
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO M-10) are not acceptable. No calcium carbide or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2.
2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT LEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

OWNER
 TRINITY QUALITY HOMES, INC.
 3675 PARK AVENUE
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ADDRESS
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 FULTON, MD 20759
 F-08-102

SCALE: AS SHOWN
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: JANUARY 2014
 PROJECT #: 13-33
 SHEET#: 2 OF 2

PLOT PLAN
FULTON MANOR II
LOT 7

REF: F-13-006
 TAX MAP 40 PARCEL 205
 BLOCK 6
 5TH ELECTION DISTRICT
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 FAX: 410.461.8961



Send Report To:

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

Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: HOMJ1932 No. B: _____ Field Blank Bottle No. 1: No B: _____

Plant/Site Name: Fulton Manor II County: Howard

Sample Source: @ Well Location: HO-95-1932
(well no, lab sink, sample tap, etc.)

County: Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: Michael Johnson (M59883) Telephone No.: _____

Date Collected: 10/07/10 Time Collected: _____ a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: Field Data: _____ pH _____ Chlorine _____

Remarks: _____

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000				
✓	Gross Beta	4100				
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: ___/___/___

Supervisor: _____