

C1 2911

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

COUNTY NUMBER A 516063

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED 3 20 06

Depth of Well 260' (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" Ho - 95 - 0259

OWNER Horton last name R. O. first name STREET OR RFD Heather Glen Way TOWN clarksville md SUBDIVISION Turnbury Grove SECTION LOT 16

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Sand (0-53) and Gray Mica Rock (53-260).

GROUTING RECORD: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM), CEMENT (CM), BENTONITE CLAY (BC), NO. OF BAGS 15, NO. OF POUNDS 1410, GALLONS OF WATER 90, DEPTH OF GROUT SEAL 0 to 53 ft.

CASING RECORD: MAIN CASING TYPE (ST), Nominal diameter top (main) casing (nearest inch) 6, Total depth of main casing (nearest foot) 57.

OTHER CASING (if used) diameter inch, depth (feet) from to

SCREEN RECORD: screen type or open hole (ST), insert appropriate code below.

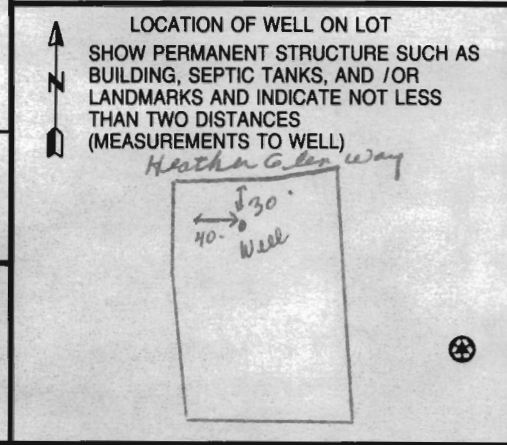
DEPTH (nearest ft.) table with columns 1-21, 23-26, 30-32, 38-41, 45-47, 51. Includes SLOT SIZE and DIAMETER OF SCREEN.

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

PUMPING TEST: HOURS PUMPED (nearest hour) 3, PUMPING RATE (gal. per min.) 6, METHOD USED TO MEASURE PUMPING RATE Bucket, WATER LEVEL (distance from land surface) BEFORE PUMPING 3 ft, WHEN PUMPING 127 ft.

PUMP INSTALLED: DRILLER INSTALLED PUMP (YES/NO), 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 (nearest foot).



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...

DRILLERS LIC. NO. MSD 024

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. MSD 024

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

B 1 1458

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 523944 please type

STATE PERMIT NUMBER HO-95-0259 fill in this form completely

Date Received (APA) 01 20 06

OWNER INFORMATION

15 Last Name: Horton, Owner: R. D., First Name: 34, Street or RFD: 1320 Piccard Drive, 36, Town: Rockville Md., 70, State: 20850, Zip: 76

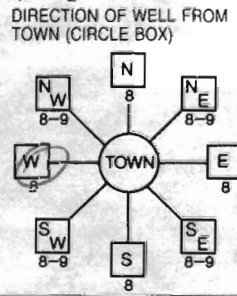
B 3 LOCATION OF WELL

8 COUNTY: Howard, 21, 23 SUBDIVISION: Sunbury Grove, 42, SECTION: 44 46, LOT: 48 50, 52 NEAREST TOWN: Clarksville, 71, MILES FROM TOWN: 1/2

DRILLER INFORMATION

Driller's Name: Joseph L. Mayne, 76, License No.: MSD 024, 81, Firm Name: Joseph L. Mayne Well Drilling, Address: 5512 Ridge Rd Mt. Airy Md. 21779, Signature: Joseph L. Mayne, Date: 1-6-06

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD: Heather Glen Way, 30, ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): WEST, 34 25 37, DISTANCE FROM ROAD: 25, ENTER FT OR MI: F1, 38 39, TAX MAP: 34, BLK: 17, PARCEL: 77

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 5, 8, 12, AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500, 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

COUNTY NAME: HOWARD, COUNTY NO.: 13, STATE SIGNATURE: A. S. 16063, DATE ISSUED: 2/24/06, CO SIGNATURE: [Signature], EXP. DATE: 2/25/07, NORTH GRID: 497 000, EAST GRID: 814 000

APPROXIMATE DEPTH OF WELL: 300 FEET

APPROXIMATE DIAMETER OF WELL: 6 INCH

METHOD OF DRILLING (circle one)

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

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 DEEPEMED AN EXISTING WELL, PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE): 41, 52

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

APPROX. PERMIT NUMBER: H020060003, PERMIT No.: HO-95-0259

SPECIAL CONDITIONS

This well must be tested for well VOC & Radium at the yield test

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

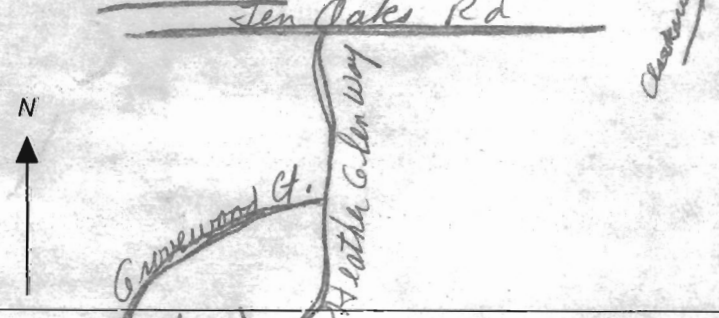
- SOURCES OF DRILLING WATER: 1. Well, 2., 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

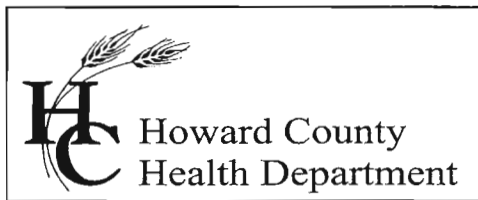
E 814, N 497

3/20/06 Sample Taken BB

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







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 ~~15~~ Turnbury Grove  
HO - 95 - 0259

To Whom this May Concern:

16

During the recent "yield test" of the well serving the future Lot 15 (located on Heather Glen Way), a sample was collected for volatile organic compounds (VOC's) on March 21, 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, Assistant Director  
Bureau of Environmental Health

Enclosure  
cc: Lot 15 Turnbury Grove Property File

**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: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

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

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

Name (Print): \_\_\_\_\_ License# \_\_\_\_\_

**\*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: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
Subdivision: Preserve @ Clarksville Lot #: 16 Well Tag #: HO-95-0259  
Site Address: 6283 Heather Glen Way

**Submersible Pump Data**

Make: \_\_\_\_\_  
Model #: \_\_\_\_\_  
Pump Capacity \_\_\_\_\_ GPM  
Well Yield: \_\_\_\_\_ GPM

**Pitless Adapter**

Make: \_\_\_\_\_  
Model#: \_\_\_\_\_  
Depth: \_\_\_\_\_ (36" min)  
NSF approved: \_\_\_\_\_

**Well Cap and Electric Conduit**

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

Depth of well encountered at time of pump installation: \_\_\_\_\_ (feet)  
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4  
Torque arrestors or Cable guards are required - Must circle one  
Safety rope, if used, attached to inside of well casing with eye bolt \_\_\_\_\_

**Piping to house**

Type: \_\_\_\_\_  
PSI: \_\_\_\_\_ (160 psi min)  
Depth of supply line: \_\_\_\_\_ (36" min)

**House Connection**

PVC sleeved to undisturbed soil at wall penetration: \_\_\_\_\_  
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 reserve area. If this cannot be accomplished, contact this office for approval prior to installation.**

Signature of company representative responsible for installation \_\_\_\_\_ date \_\_\_\_\_

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

Date Insp. Requested: 5/4/12 Date Insp. Approved: 5/4/12  
Inspection Data: Pitless adapter and 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 installed inside of well 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

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 & Sons, Inc. Telephone #: 440-544-6960  
Address: 5220 Kleas Mill Rd  
Ligonsville, MD 2184

(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 F. KLEIN License# 6522

\*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: Compass Homes Telephone #: 443-250-5734  
Subdivision: Reserve @ Clarksville Lot # 16 Well Tag #: HO-95-0259  
Site Address: 6283 HEATHER WAY

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>GRUNDFOS</u>	Make: _____	Two piece watertight cap: <u>Yes</u>
Model #: <u>155EDT-180</u>	Model#: <u>PT800</u>	Screened, vented well cap: <u>Yes</u>
Pump Capacity: <u>7</u> GPM	Depth: <u>36</u> " (36" min)	Cap secured to casing: <u>Yes</u>
Well Yield: <u>6</u> GPM	NSF approved: _____	Conduit min 18" B.G.: <u>Yes</u>
Depth of well encountered at time of pump installation: <u>260</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 178.4  
Torque arrestors or Cable guards are required - Must circle one  
Safety rope, if used, attached to inside of well casing with eye bolt \_\_\_\_\_

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>1 black poly pipe</u>	PVC sleeved to undisturbed soil at wall penetration: <u>Yes</u>
PSI: <u>160</u> (160 psi min)	Approximate length of sleeve: <u>6 ft</u>
Depth of supply line: <u>42</u> " (36" min)	Sleeve caulked and sealed properly: <u>Yes</u>

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: Michael F. Klein date: 2/25/12

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

Date Insp. Requested: \_\_\_\_\_ Date Insp. Approved: \_\_\_\_\_  
Inspection Data: Pitless adapter and 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 installed inside of well 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 \_\_\_\_\_



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](http://www.hchealth.org)

Peter L. Beilenson, M.D., M.P.H., Health Officer

November 17<sup>th</sup>, 2011

Compass Homes, LLC  
Attn: Amy Ferrer  
6206 Heather Glen Way  
Clarksville, MD 21029

**RE: 6283 Heather Glen Way  
The Preserve at Clarksville - Lot 16  
Clarksville, MD 21029**

Dear Ms. Ferrer,

Upon recent review of the above referenced property, it was noted that this lot is within an area of naturally occurring radiation in the county (i.e., Radionuclides). A raw sample collected on 03/20/2006 indicated the Gross Alpha result was at its maximum contaminant level (MCL) while the Gross Beta was below its maximum contaminant level.

As stated in a letter dated 03/17/2006 (enclosed), **prior to issuance of a Use & Occupancy** additional testing for Gross Alpha, Gross Beta and Radium 226/228 will be necessary to verify existing levels.

Alternatively, you may install treatment designed to reduce Gross Alpha, Gross Beta and Radium, plus provide post treated results (for all 3 parameters) confirming levels are in conformance with existing standards. Should you choose to install treatment; the owners will be required to sign an "Agreement for Approval of an Individual Drinking Well with an Onsite Treatment System" as part of the Use and Occupancy process.

Please contact me at the Bureau of Environmental Health if you should have any further questions (410-313-1771).

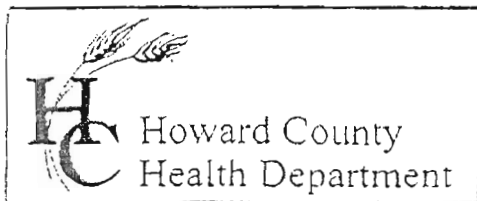
Respectfully,

Heidi Scott, R.S.

Well and Septic Program

E-mail: [hscott@howardcountymd.gov](mailto:hscott@howardcountymd.gov)

cc: Well & Septic program file



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  
Lurnbury Grove

**Bricker, Robert**

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**From:** Bricker, Robert  
**Sent:** Wednesday, July 25, 2012 1:21 PM  
**To:** 'amy Ferrer'  
**Subject:** 6283 Heather Glen Way  
**Attachments:** 6283 Heather Glen Way\_RADIUM TREATMENT AGREEMENT\_The Preserve at Clarksville-Lot 16.pdf

Amy,

I have reviewed the subject property file for ICOP. The parameter values for potability are within standards, and the post-treatment radioactive constituents are below their respective MCLs. For the Health Department to issue an *Interim Certificate of Potability with Permanent Deviation for Radium*, thereby permitting Use and Occupancy, a Radium Treatment Agreement must be signed by the homeowner and the Health Officer and entered into Land Records.

ROBERT BRICKER, CPSS, REHS/RS  
ENVIRONMENTAL SANITARIAN  
DEVELOPMENT COORDINATION SECTION, WELL AND SEPTIC PROGRAM  
HOWARD COUNTY BUREAU OF ENVIRONMENTAL HEALTH  
7178 COLUMBIA GATEWAY DRIVE  
COLUMBIA, MD 21046

410-313-2691; fax, 410-313-2648  
[rbricker@howardcountymd.gov](mailto:rbricker@howardcountymd.gov)

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7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
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[www.hchealth.org](http://www.hchealth.org)  
Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth)  
Twitter: HowardCoHealthDep

Peter L. Beilenson, M.D., M.P.H., Health Officer

**INTERIM CERTIFICATE OF POTABILITY**  
**PERMANENT DEVIATION FOR RADIUM**  
Expiration Date – February 20, 2013

August 20, 2012

Yun-Xing Wang and Karen H. Wang  
6283 Heather Glen Way  
Clarksville, MD 21029

**RE: The Preserve at Clarksville, Lot 16**  
**6283 Heather Glen Way**  
**Building Permit: B11002220**  
**Well Permit: HO-95-0259**

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 **3/21/2012**. Final approval of the well line connection to the dwelling was granted on **5/4/2012**. The well construction was completed on **3/20/2006**. Water samples were collected on **7/10/2012**.

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 **7/10/2012**. Results showed a Gross Alpha level of **43.6 ± 3.9 pCi/L** and Gross Beta level of **24.7 ± 3.3 pCi/L**. **This exceeds the maximum contaminant level (MCL) of 15 pCi/L and/or 50 pCi/L, respectively.**

After installation of a radionuclide removal device(kitchen tap reverse osmosis system), post-treatment water samples were collected on **7/11/2012** and indicated a Gross Alpha level of **<0.9 ± 0.6 pCi/L**, a Gross Beta level of **<1.9 ± 1.2 pCi/L**, and a Radium 226/228 level of **<1.2 ± 0.7 pCi/L**.

This Department will grant a **permanent deviation** to the Interim Certificate of Potability on condition that the radionuclide removal system effectively maintains a Gross Alpha level of less than **15 pCi/L**, a Gross Beta level of less than **50 pCi/L**, and a Radium 226/228 level of less than **5 pCi/L**.

**Furthermore, it will be necessary for you to comply with the following conditions:**

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.

2. It is recommended that a Maryland certified water laboratory certified for radionuclide analysis perform a yearly radionuclide analysis.
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this permanent deviation. **A person who fails to make this disclosure is subject to the penalties set out in COMAR 26.04.04.12F Enforcement and Environment Article 9-1311, Annotated Code of Maryland.**

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-95-0259. 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 Maryland 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.  
Environmental Sanitarian  
Well & Septic Program

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

Robert  
Bicker

Circuit Court for  
HOWARD COUNTY  
Clerk of the Court,  
MARGARET D. RAPPAPORT  
8360 COURT AVENUE  
ELLICOTT CITY, MD 21043-  
(410) 313-2111

Transaction Block:	1567	
Ref: 106		
TISC		AMOUNT
IMP FD SURE \$5		40.00
RECORDING FEE \$20.00		20.00
SUBTOTAL:		60.00
TOTAL CHARGES:		60.00
PAYMENTS		
CHECK	60.00	
TOTAL TENDERED:	60.00	

Cashier: VLB Reg # H008  
Rcpt # 70716  
Date: Aug 20, 2012 Time: 08:40 am

Circuit Court for  
HOWARD COUNTY  
Clerk of the Court,  
MARGARET D. RAPPAPORT  
8360 COURT AVENUE  
ELLICOTT CITY, MD 21043-  
(410) 313-2111

Transaction Block:	1539	
Ref: 106		
TISC		AMOUNT
CERTIFIED COPY-A		5.00
PHOTOCOPY-A		1.00
SUBTOTAL:		6.00
TOTAL CHARGES:		6.00
PAYMENTS		
CHECK		6.00
TOTAL TENDERED:		6.00

Cashier: VLB Reg # H008  
Rcpt # 70717  
Date: Aug 20, 2012 Time: 08:43 am



Bureau of Environmental Health  
7178 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

Peter L. Beilenson, M.D., M.P.H., Health Officer

**AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN  
ON-SITE TREATMENT SYSTEM**

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and Karen & Yun-Xing Wang ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 6283 Heather Glen Way, Clarksville, MD 21029 and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 34, Grid # 11, Parcel # 77, Deed Reference # 13482/459 and District # 05, Tax Account # 448298, Block # 9999, The Preserve at Clarksville subdivision, Lot 16. ("the Property").

WHEREAS, the Property lacks an available public drinking water source and is required to have an individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit HO-95-0259 that has been tested by the Health Department (or a private laboratory certified to perform testing) for radionuclide particles. The results of the tests have shown that the gross alpha particle content and/or the gross beta particle content and/or the combined radium 226/228 levels exceeds the standards of 15 picocuries per liter (pCi/L), 4 millirems per year (mrem/yr) and/or 5pCi/L respectively.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the maximum contaminate levels (MCL's) for radionuclides.

WHEREAS, MDE has determined that radium can be effectively removed from the drinking water by the use of treatment devices (e.g., ion exchange or reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce radionuclides.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.

NOW THEREFORE, the parties have agreed to the following terms and conditions:

1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective MCL. The Health Department shall verify that the treatment device is operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).
3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta (short and long term) and radium 226 / 228 levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warrant nor guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department and the Owner. There are no additional terms other than as contained in this Agreement. This Agreement may not be modified except in writing signed by each of the parties or their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

8/17/2012  
Date  
8/17/2012  
Date  
8/17/2012  
Date  
Amy [Signature]  
Witness

[Signature]  
Owner  
[Signature]  
Owner  
[Signature]  
Howard County Health Department

\_\_\_\_\_  
Witness



**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:**

Amy Ferrer  
 Compass Homes  
 6206 Heather Glen Way  
 Clarksville, Maryland 21029

**S/O Number:** 85845-1

**Report Date:** July 24, 2012

*Raw Sample*

**Property Sampled:** 6283 Heather Glen Way, 21029  
**Sample Location:** Pressure Tank Tap  
**Residual Chlorine:** <0.1 mg/L

**Building Permit #:** B11002220  
**Sampler ID #:** 7483AM  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 34

**Subdivision:** Preserve at Clarksville  
**Parcel:** 77

**Lot #:** 16

**Date/Time Collected in Field:** July 10, 2012 @ 1:39 pm  
**Date/Time Received in Lab:** July 10, 2012 @ 3:39 pm

**Well Tag #:** HO-95-0259  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** Sediment Filter, Reverse Osmosis

*Fail at entry point  
 per 8/17/2012  
 see Treated sample results*

PARAMETER	METHOD	MDL (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha (Short-Term)	EPA 900.0	1.0	15	43.6 ± 3.9	HIGH
Gross Beta (Short-Term)	EPA 900.0	2.0	50	38.0 ± 2.7	Acceptable
Gross Alpha (Long-Term)	EPA 900.0	1.4	15	24.7 ± 3.3	HIGH
Gross Beta (Long-Term)	EPA 900.0	1.9	50	24.2 ± 2.1	Acceptable

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report and the acceptability of this sample is based on these requirements. Gross Alpha levels under 5 pCi/L are acceptable. Levels between 5 and 15 pCi/L are considered moderate, and levels greater than 15 pCi/L are considered high. When levels are moderate or high, treatment or further testing is recommended and in certain cases may be required by the health department.

MDL: Method Detection Limit  
 MCL: Maximum Contamination Level, an enforceable level established by the EPA  
 +Analyzed by Lab # 278



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Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:** Amy Ferrer  
 Compass Homes  
 6206 Heather Glen Way  
 Clarksville, Maryland 21029

**S/O Number:** 85845-1

**Report Date:** July 24, 2012

*Raw Sample*

**Property Sampled:** 6283 Heather Glen Way, 21029  
**Sample Location:** Pressure Tank Tap  
**Residual Chlorine:** <0.1 mg/L

**Building Permit #:** B11002220  
**Sampler ID #:** 7483AM  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 34

**Subdivision:** Preserve at Clarksville  
**Parcel:** 77

**Lot #:** 16

**Date/Time Collected in Field:** July 10, 2012 @ 1:39 pm  
**Date/Time Received in Lab:** July 10, 2012 @ 3:39 pm

**Well Tag #:** HO-95-0259  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** Sediment Filter, Reverse Osmosis

*FAILS at entry point  
 per 8/17/2012  
 see Treated sample results*

PARAMETER	METHOD	MDL (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha (Short-Term)	EPA 900.0	1.0	15	43.6 ± 3.9	HIGH
Gross Beta (Short-Term)	EPA 900.0	2.0	50	38.0 ± 2.7	Acceptable
Gross Alpha (Long-Term)	EPA 900.0	1.4	15	24.7 ± 3.3	HIGH
Gross Beta (Long-Term)	EPA 900.0	1.9	50	24.2 ± 2.1	Acceptable

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report and the acceptability of this sample is based on these requirements. Gross Alpha levels under 5 pCi/L are acceptable. Levels between 5 and 15 pCi/L are considered moderate, and levels greater than 15 pCi/L are considered high. When levels are moderate or high, treatment or further testing is recommended and in certain cases may be required by the health department.

MDL: Method Detection Limit  
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Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:**

Amy Ferrer  
 Compass Homes  
 6206 Heather Glen Way  
 Clarksville, Maryland 21029

**S/O Number:** 85845-2

**Report Date:** July 24, 2012

*Treated Sample*

**Property Sampled:** 6283 Heather Glen Way, 21029  
**Sample Location:** Reverse Osmosis (R/O) Tap ✓  
**Residual Chlorine:** <0.1 mg/L *Point of Use*

**Building Permit #:** B11002220  
**Sampler ID #:** 7483AM  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 34

**Subdivision:** Preserve at Clarksville  
**Parcel:** 77

**Lot #:** 16

**Date/Time Collected in Field:** July 11, 2012 @ 9:11 am  
**Date/Time Received in Lab:** July 11, 2012 @ 11:26 am

**Well Tag #:** HO-95-0259  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** Sediment Filter, Reverse Osmosis (R/O)

PARAMETER	METHOD	MDL (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha (Short-Term)	EPA 900.0	0.9	15	<0.9 ± 0.6	Acceptable
Gross Beta (Short-Term)	EPA 900.0	1.9	50	<1.9 ± 1.2	Acceptable

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report and the acceptability of this sample is based on these requirements. Gross Alpha levels under 5 pCi/L are acceptable. Levels between 5 and 15 pCi/L are considered moderate, and levels greater than 15 pCi/L are considered high. When levels are moderate or high, treatment or further testing is recommended and in certain cases may be required by the health department.

*'OK' RB 8/17/2012*

MDL: Method Detection Limit  
 MCL: Maximum Contamination Level, an enforceable level established by the EPA  
 +Analyzed by Lab # 278



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Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:**

Amy Ferrer  
 Compass Homes  
 6206 Heather Glen Way  
 Clarksville, Maryland 21029

**S/O Number:** 85845-2

**Report Date:** July 24, 2012

*Treated Sample*

**Property Sampled:** 6283 Heather Glen Way, 21029  
**Sample Location:** Reverse Osmosis (R/O) Tap ✓  
**Residual Chlorine:** <0.1 mg/L *Point of Use*

**Building Permit #:** B11002220  
**Sampler ID #:** 7483AM  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 34

**Subdivision:** Preserve at Clarksville  
**Parcel:** 77

**Lot #:** 16

**Date/Time Collected in Field:** July 11, 2012 @ 10:28 am  
**Date/Time Received in Lab:** July 11, 2012 @ 11:26 am

*OK MB 8/17/2012*

**Well Tag #:** HO-95-0259  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** Sediment Filter, Reverse Osmosis (R/O)

PARAMETER	METHOD	MDL (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha (Long-Term)	EPA 900.0	2.4	15	<2.4 ± 1.5	Acceptable
Gross Beta (Long-Term)	EPA 900.0	3.3	50	<3.3 ± 2.0	Acceptable
Radium 226	EPA 903.1	0.2	5 pCi/L Combined	<0.2 ± 0.1	Acceptable
Radium 228	EPA Ra-05	1.0		<1.0 ± 0.6	

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report and the acceptability of this sample is based on these requirements. Gross Alpha levels under 5 pCi/L are acceptable. Levels between 5 and 15 pCi/L are considered moderate, and levels greater than 15 pCi/L are considered high. When levels are moderate or high, treatment or further testing is recommended and in certain cases may be required by the health department.

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

MDL: Method Detection Limit  
 MCL: Maximum Contamination Level, an enforceable level established by the EPA  
 +Analyzed by Lab # 278



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Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:**

Amy Ferrer  
 Compass Homes  
 6206 Heather Glen Way  
 Clarksville, Maryland 21029

**S/O Number:** 85845-1

**Report Date:** July 24, 2012

*Potability Testing*

**Property Sampled:** 6283 Heather Glen Way, 21029  
**Sample Location:** Pressure Tank Tap  
**Residual Chlorine:** <0.1 mg/L

**Building Permit #:** B11002220  
**Sampler ID #:** 7483AM  
**Samples Iced:** Yes

**County:** Howard      **Subdivision:** Preserve at Clarksville  
**Map:** 34      **Parcel:** 77      **Lot#:** 16

**Date/Time Collected in Field:** July 10, 2012 @ 1:39 pm  
**Date/Time Received in Lab:** July 10, 2012 @ 3:39 pm

**Well Tag #:** HO-95-0259  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** Sediment Filter, Reverse Osmosis (R/O)

PARAMETER	METHOD	MCL/*SMCL	RESULT	PASS/FAIL
Total Coliform	SM 9223B	Absent	Absent	Pass
E. coli	SM 9223B	Absent	Absent	Pass
Nitrate	SM 4500D	10 mg/L as N	<1.0 mg/L as N	Pass
Turbidity	EPA 180.1	10 NTU	1.0 NTU	Pass
pH	EPA 150.1	*6.5-8.5 Units	7.4 Units	***
Sand		Absent	Absent	Pass

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.

OK  
 HB 8/17/2012

*Katherine Higgs*  
 Katherine Higgs  
 Manager - Drinking Water Group

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.



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

May 17, 2006

D.R. Horton  
1370 Piccard Drive  
Rockville, MD 20850

RE: Turnbury Grove Subdivision, ~~Lot 15~~ Now Lot 16

Well Tag: HO-95-0259

To Whom It May Concern:

A sample was collected from a yield test on March 20, 2006 and submitted to Florida Radiochemistry Services to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of  $17.8 \pm 2.1$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $13.8 \pm 1.6$  pCi/L. The **Gross Alpha** result was above its maximum contaminant level (MCL) of 15 pCi/L, while the **Gross Beta** level was below its MCL of 50 pCi/L.

Since the **Gross Alpha** finding exceeded its MCL, additional testing for **Radium** will be necessary prior to occupancy to verify existing levels. Alternatively, you may install treatment designed to reduce **Gross Alpha**, **Gross Beta** and **Radium**, plus provide post treated results confirming that levels are in conformance with existing standards. Treatment devices such as Reverse Osmosis and "softeners" are generally effective in addressing this type of contaminant.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions or to discuss additional testing requirements.

Sincerely,

Bert Nixon, Deputy Director  
Bureau of Environmental Health

BN/bu

cc: Eric Dougherty, MDE Water Mgmt., Groundwater  
Well & Septic property file

D.R. Horton 301-670-6144  
1370 Piccard Drive 410-939-8793

State of Rockville, MD 20850

Send Report To:

Howard Co  
Environmental  
Health

DHMH - Laboratories Administration

Division of Environmental Chemistry

**RADIATION LABORATORY**

201 W. Preston Street, Baltimore, Maryland 21201

J. Mehsen Joseph, Ph.D., Director

**LABORATORY ANALYSIS REQUEST**

HOTG15BB950259

Sample Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_ Field Blank Bottle No. 1: \_\_\_\_\_ No. 2: \_\_\_\_\_

Plant/Site Name: \_\_\_\_\_ County: Howard

Sample Source: Turnberry Grove - Lot 15 Location: Well # 95-0259  
(well no., lab sink, sample tap, etc.)

County:  1  3 Plant No.

Collector: 7485BB Telephone No.: (410)313-2643

Date Collected: 3/20/2006 Time Collected: 9:00 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Submitters Code:   Federal Project:  S Field Data: \_\_\_\_\_ pH \_\_\_\_\_ Chlorine \_\_\_\_\_

Remarks: TAKEN DURING YIELD TEST

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	<u>0603103-02</u>	<u>17.8 ± 2.1</u>	
✓	Gross Beta	4100		<u>18.8 ± 1.6</u>	
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank #1	4004			
	Field Blank #2	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Section Chief: \_\_\_\_\_

Send Report To:

Howard County  
Env. Health

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

961380 MAR 21 11

Do not write above this line

**LABORATORY ANALYSIS REQUEST**

HOTG15BB950259Well

Bottle No: 1 Plant/Site Name: Turnberry Grove-Lot 16 County: Howard

Sample Source: Heather Glen Way Clarksville Location: Well # HO-95-0259  
Street Town or City (well no., lab sink, sample tap, etc.)

Sampler ID: 7485BB PWSID:  Plant ID:

Collector: Brian Baker (410)313-2643  
(include telephone number)

Date Collected: 3/21/2006 Time Collected: 9:00 a.m. p.m.

Field Preserved:  Yes  No Preservative Used:  1:1 HCl-Ascorbic acid  Na<sub>2</sub>SO<sub>4</sub>  6 mg NH<sub>4</sub>Cl

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

Specify Program:  SDWA  NPDES  CWA  RCRA  Consumer Products  Other \_\_\_\_\_

Test Requested:  Trihalomethanes  Volatiles  Semi-volatiles  Haloacetic Acids

FIELD DATA :                 
pH Free Cl Total Cl

Field Blank Bottle No.: HOTG15BB950259Field  
Trip Blank Bottle No.: HOTG15BB950259Trip

Initial Yield Test  
Remarks: ~~Tested~~ Please Run Full Scan Including MTBE

Section Chief: [Signature] Date Reported: 4/7/06

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

Form Revised 12/00  
DHMH 4362

RECEIVED  
HOWARD COUNTY HEALTH DEPT  
ENVIRONMENTAL CHEMISTRY  
APR 10 2006 10:06 AM



Florida Radiochemistry Services, Inc.

Analysis Report

Lab Sample I.D. 0603163-01

0603163-02

Client I.D. HO-11428-20ST

HO-TG15BB950259

Gross Alpha 19.1  
Error +/- 2.7  
MDL 2.1  
EPA Method 900.0  
Prep Date 03/21/06  
Analysis Date 03/22/06  
Analyst MJN

17.8  
2.1  
0.8  
900.0  
03/21/06  
03/22/06  
MJN

Gross Beta 11.2  
Error +/- 1.5  
MDL 1.9  
EPA Method 900.0  
Prep Date 03/21/06  
Analysis Date 03/22/06  
Analyst MJN

18.8  
1.6  
1.7  
900.0  
03/21/06  
03/22/06  
MJN

Units

pCi/l

pCi/l

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:** 961380 HOTG15BB950259WELL      **Method:** EPA 524.2  
**Date Analyzed:** 04/04/06

<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>	<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>
<u>TRIHALOMETHANES</u>				<u>UNREGULATED</u>			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
<u>REGULATED</u>				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	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: Richard Miller, Jr.

Date Approved: 4/7/06

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: 961380 FB  
 Date Analyzed: 04/04/06

Method: EPA 524.2

Contaminants	DL*	MCL*	Result*	Contaminants	DL*	MCL*	Result*
<b>TRIHALOMETHANES</b>				<b>UNREGULATED</b>			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
<b>REGULATED</b>				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	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-Jud Date Approved: 4/7/06

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: 961380 TB  
 Date Analyzed: 04/04/06

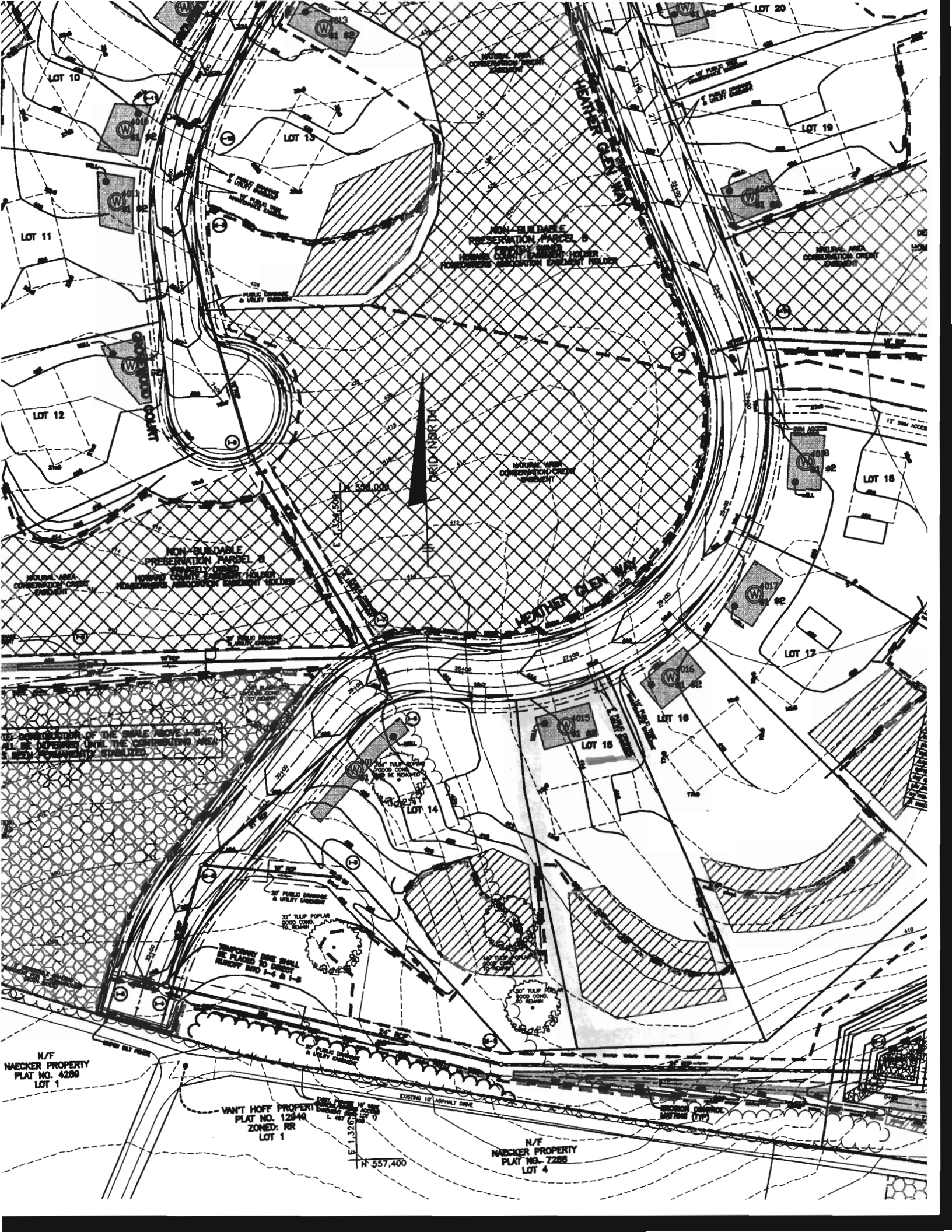
Method: EPA 524.2

<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>	<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>
<u>TRihalOMETHANES</u>				<u>UNREGULATED</u>			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
<u>REGULATED</u>				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	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: *Richard Miller*

Date Approved: 4/7/06



LOT 10

LOT 13

LOT 19

LOT 11

LOT 12

LOT 18

LOT 17

LOT 16

LOT 15

LOT 14

N/F  
NACKER PROPERTY  
PLAT NO. 4289  
LOT 1

WANT HOFF PROPERTY  
PLAT NO. 12948  
ZONED: RR  
LOT 1

N/F  
NACKER PROPERTY  
PLAT NO. 7288  
LOT 4

NON-BUILDABLE  
PRESERVATION PARCEL B  
CRIPPER BERRY  
HUNTER COUNTY FORESTRY HOLDING  
PERMANENT PROTECTION EASEMENT HELD BY

NON-BUILDABLE  
PRESERVATION PARCEL B  
HUNTER COUNTY FORESTRY HOLDING  
PERMANENT PROTECTION EASEMENT HELD BY

NATURAL AREA  
CONSERVATION CREDIT  
EASEMENT

NATURAL AREA  
CONSERVATION CREDIT  
EASEMENT

THE DIRECTION OF THE DRIVE ABOVE IS TO  
ALL BE DEFERRED UNTIL THE CONSERVATION AREA  
& BERRY PERMANENTLY ESTABLISHED

TEMPORARY DRIVE SHALL  
BE PLACED TO SERVICE  
RISERFF BLDG 1-4 & 1-5

N 557,400

EXISTING 10' ASPHALT DRIVE

EXISTING DRIVE  
W/STREET LIGHT

DO

1994

12' SIDE ACCESS

EXISTING DRIVE  
W/STREET LIGHT

EXISTING DRIVE  
W/STREET LIGHT