

C1 8847

SEQUENCE NO. (DENV USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE

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

COUNTY NUMBER A 49228

ST/CO USE ONLY

DATE RECEIVED grid

DATE WELL COMPLETED

010194

Depth of Well 200 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL"

HO-94-0104

OWNER: Russia OCEA; STREET OR RFD: last name BERRY RD first name; TOWN: COCKE WOOD; SUBDIVISION: SECTION LOT 2

WELL LOG Not required for driven wells. STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING.

Table with columns: DESCRIPTION, FEET (FROM, TO), Check if water bearing. Rows include Top Soil, Brown Shale, Tan slate, Brown slate, Blue slate, Brown slate, Blue slate.

GROUTING RECORD. WELL HAS BEEN GROUTED (Y). TYPE OF GROUTING MATERIAL: CEMENT CM, BENTONITE CLAY BC. NO. OF BAGS 31, NO. OF POUNDS 105.

CASING RECORD. MAIN CASING TYPE: ST. Nominal diameter top (main) casing 6 inches. Total depth of main casing 71 feet.

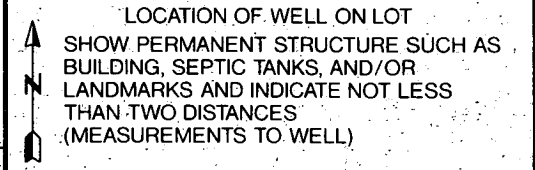
OTHER CASING (if used) diameter inch, depth (feet) from to.

SCREEN RECORD. screen type or open hole: ST. SLOT SIZE 1 2 3. DIAMETER OF SCREEN 56 to 60 (NEAREST INCH).

DEPTH (nearest ft.) grid for screen record.

PUMPING TEST. HOURS PUMPED 3. PUMPING RATE 12 gal. per min. METHOD USED TO MEASURE PUMPING RATE: Bucket. WATER LEVEL (distance from land surface) BEFORE PUMPING 70, WHEN PUMPING 70. TYPE OF PUMP USED (for test): S submersible.

PUMP INSTALLED. DRILLER WILL INSTALL PUMP YES (circled). IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE. CAPACITY: GALLONS PER MINUTE, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT (circle appropriate box and enter casing height).



A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED. ELECTRIC LOG OBTAINED. 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 IDENT. NO. DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

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

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

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER). T (E.R.O.S.), W-Q (74, 75, 76).

TELESCOPE CASING, LOG INDICATOR, OTHER DATA.

**B 1** 07755 SEQUENCE NO. (DP USE ONLY)

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

STATE OF MARYLAND  
PERMIT TO DRILL WELL  
please print or type

STATE PERMIT NUMBER  
40-94-0104  
fill in this form completely

**B 3** OWNER INFORMATION

Date Received (APA) [ ] [ ] [ ] [ ] [ ] [ ]

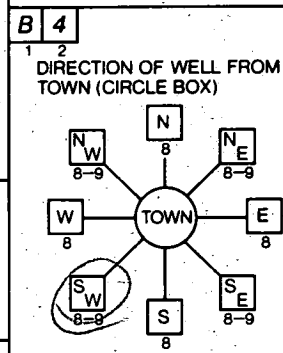
8 13  
ROSSER OLGA  
15 Last Name Owner First Name 34  
75612 BUSHY PARK RD  
36 Street or RFD 55  
WOODKLINE MD 21797  
57 Town 70 State 72 Zip 76

**B 3** LOCATION OF WELL

1 2  
HOWARD  
8 COUNTY 21  
CATTAIL RUN  
23 SUBDIVISION 42  
SECTION 44 46 LOT 2 50  
COOKSVILLE  
52 NEAREST TOWN 71  
MILES FROM TOWN (enter 0 if in town) 2 MI  
73 76 77 78

**B 4** DRILLER INFORMATION

George F. Easterday 40  
Driver's Name 77 License No. 80  
L.F. EASTERDAY Inc  
Firm Name  
111 Airy MD 21771  
Address  
George F. Easterday 6-1394  
Signature Date



**B 4** NEAR WHAT ROAD

BUSHY PARK Rd  
11 30  
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
NORTH  
WEST EAST  
SOUTH  
34 1000 37  
DISTANCE FROM ROAD  
ENTER FT or MI FT  
38 39

**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)

HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)  
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)  
 PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)  
 TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard A 49228  
COUNTY NAME COUNTY NO.  
STATE SIGNATURE INSERT S  
DATE ISSUED 061794 Co. Will 6/16/95  
43 48 CO SIGNATURE EXP. DATE  
NORTH GRID 539000 EAST GRID 0784000  
50 55 57 63

APPROXIMATE DEPTH OF WELL 200 FEET  
24 28

APPROXIMATE DIAMETER OF WELL 6 INCH  
NEAREST INCH

METHOD OF DRILLING (circle one)

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

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

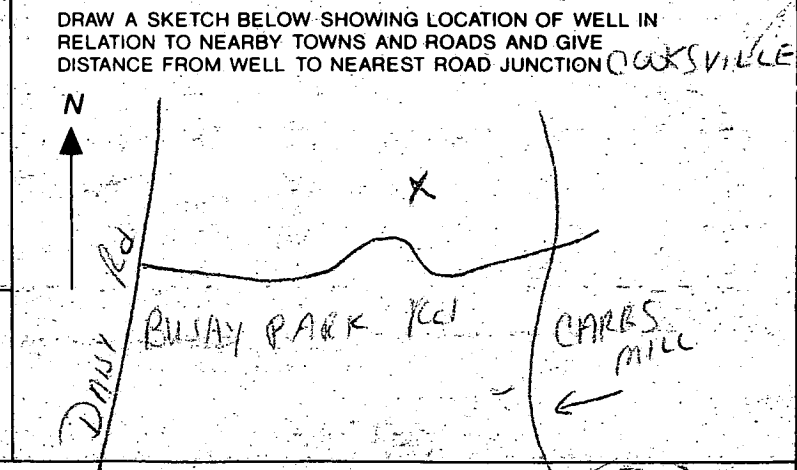
SOURCES OF DRILLING WATER  
1 well  
2.  
3.  
WRITE THE BOX NUMBER FROM THE MAP HERE

E 780  
N 530

7/10/94 5:17/94  
6:00 AM - 2:40 PM  
no msp 7/8/94  
10:30  
casing: 71'  
open hole: 64'  
# bags: 21  
Location OK  
tag checked DKS

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  
39  THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY  
 THIS WELL WILL DEEPEM AN EXISTING WELL  
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 52



Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER [ ] [ ] [ ] [ ] GAP [ ] [ ] [ ] [ ] 54 63  
FORCE 67 68 WRITE INITIALS IN BOX PERMIT No. 40-94-0104 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS SAMPLING FOR VOC'S AND METALS REQ'D. SEE ATTACHMENT (C)



William Donald Schaefer  
Governor

**Maryland Department of Natural Resources**  
**Water Resources Administration**

Tawes State Office Building  
Annapolis, Maryland 21401

Torrey C. Brown, M.D.  
Secretary

Robert D. Miller  
Director

*"A Commitment to Excellence in Managing Maryland's Water Resources"*

MEMORANDUM

To: Howard County Health Department, Environmental Health  
Section.

From: Matthew G. Pajerowski *MGP*  
Water Appropriation Permits Section

Date: March 15, 1994

Subj: Water Appropriation and Use Permit Application Number:  
HO94G001/1

This office is in receipt of the above referenced application, a copy of which is attached. The application was submitted without completion of the County Review Section. Would you please complete that section on the enclosed copy of the application and return it to this office. Also enclosed are other pertinent documents which are listed below.

Enclosures:

1. Copy of application.
2. Copy of portion of site plan.
3. Copy of portion of tax map 14.

A timely response would be appreciated. If a response has not been received within 14 days of the date of this memorandum, the Administration will resume processing the application.

APR 15 1994 11:22

Telephone: (410) 974-2456

DNR TTY for the Deaf: 301-974-3683



# APPLICATION FOR A PERMIT TO APPROPRIATE AND USE WATERS OF THE STATE

Water Resources Administration  
Water Supply Section  
Taves Office Building  
Annapolis, Maryland 21401

Surface Water     Groundwater     New Application     Change in Existing Permit

Number H094G0011

|                    |   |   |   |  |
|--------------------|---|---|---|--|
| <b>APPLICATION</b> | <u>MRS. OLGA S. ROSSER</u> (410) 422-1381<br><small>(Owner's Name) (Telephone Number)</small> |   |   |  |
|                    | <u>15612 BUSHY PARK RD.</u><br><small>(Owner's Address)</small>                               | <u>WOODBINE MD.</u><br><small>(Street) (Town) (State)</small> | <u>21797</u><br><small>(Zip Code)</small> |  |

|   |  |
|---|--|
| <p><b>WITHDRAWAL</b>    <b>GROUNDWATER</b></p> <p>Appropriate and use a yearly average of <u>500</u> gallons per day,<br/><small>(total annual use ÷ 365 days)</small></p> <p>and <u>700</u> gallons<br/><small>(highest total monthly use ÷ days in month)</small></p> <p>for the average day of the maximum month, from <u>2</u> well(s) having a diameter of <u>6"</u> inches, and a depth of <u>150</u> ft.<br/><small>(number) (estimate) (estimate)</small></p> | <p><b>SURFACE WATER</b></p> <p>Appropriate and use a yearly average of _____ gallons per day, and a maximum use of _____<br/><small>(total annual use ÷ 365 days)</small></p> <p>gallons in any one day, from: <u>FEB 28 1994</u><br/><small>(name of stream)</small></p> <p style="text-align: center;"><b>RECEIVED</b></p> <p style="text-align: center;">WATER RESOURCES ADMIN.<br/>WATER RIGHTS DIVISION</p> |
|---|--|

**PROJECT LOCATION**    NORTHWEST CORNER BUSHY PARK RD AND CARRS MILL RD.  
(Location - be specific)

County HOWARD    Subdivision or town CARRS MILL    Phone number N/A

Name and type of business 3-LOT RESIDENTIAL SUBDIVISION (1 EXIST. DWG.)

ALL APPLICATIONS MUST INCLUDE A COPY OF A U.S.G.S. TOPOGRAPHIC OR SIMILAR MAP SHOWING PROJECT

|  |   |
|--|---|
| <p><b>PURPOSE</b></p> <p>The water will be used for:</p> <p><input type="checkbox"/> Community Water Supply</p> <p><input type="checkbox"/> Non-Potable supply (sanitary uses, not for drinking water)</p> <p><input checked="" type="checkbox"/> Potable Supply (drinking water, etc.)</p> <p><input type="checkbox"/> Cooling Water</p> <p><input type="checkbox"/> Irrigation</p> <p><input type="checkbox"/> Process Water</p> <p><input type="checkbox"/> Other _____<br/><small>(use/uses)</small></p> | <p><b>WASTEWATER TREATMENT AND DISPOSAL</b></p> <p><input type="checkbox"/> Public Sewer _____<br/><small>(name of system)</small></p> <p><input type="checkbox"/> Groundwater</p> <p><input type="checkbox"/> Subsurface (tilefield, seepage pit, etc.)</p> <p><input type="checkbox"/> Spray Irrigation</p> <p><input type="checkbox"/> Other, explain _____</p> <p><input type="checkbox"/> Surface Water _____<br/><small>(name of stream)</small></p> <p>Discharge Permit # _____<br/>or applied for _____</p> |
|--|---|

**SIGNATURE**

Please sign here: Charles R. Crocken P.E.  
(signature)

CHARLES R. CROCKEN    2/20/94  
(please print name, title, and date here)    ENGINEER

**THIS APPLICATION CANNOT BE PROCESSED WITHOUT SIGNATURE**

**APPROVAL BY COUNTY HEALTH DEPARTMENT OR DESIGNATED AGENCY**

**THIS SECTION NOT TO BE COMPLETED BY APPLICANT**

Is this Project consistent with the County Water and Sewerage Plan and local planning and zoning?

YES     NO, explain \_\_\_\_\_

Signature of county representative: J. S.    3/22/94  
(signature) (title) (date)

03700000 4-0 8

WATER ANALYSIS

Do not write above this line.

S  
A  
M  
P  
L  
E  
I  
D

Bottle Number HC-ROSS-N Name ROSSER, OLGA County HOWARD County Code 13

Source LOT 2 BUSHY PARK ROAD Date Category Code 4F

Collected: Date 7/7/94 Time 10:55 Collector & Phone B NIXON Submitter Code

CHECK (one per box)

|  |   |   |   |  |
|--|---|---|---|--|
| Drinking Water <input checked="" type="checkbox"/> | Community Non-community Private Other <input checked="" type="checkbox"/> | Source (raw water) Distribution (treated) MCL <input checked="" type="checkbox"/> | Emergency Routine Recheck Special <input checked="" type="checkbox"/> | Federal Project <input type="checkbox"/> |
|--|---|---|---|--|

F  
I  
E  
L  
D

Plant No. [ ] [ ] [ ] [ ] [ ] Sampling Station [ ] [ ] [ ] [ ] [ ] Preservation: Iced  Acid  Type of Acid H2SO4

pH 6.6 Chlorine: Free [ ] [ ] Total [ ] [ ] Specific Conductance [ ] [ ] [ ] [ ]

Notes to Lab/Remarks: P/O PUMP TEST - NEW WELL HC 94 0154

JPR 15

| CHECK TESTS                         | TESTS                               | CODES | ERROR CODE | G/L | RESULTS | DATE ANALYZED | ANALYST INITIALS |
|-------------------------------------|-------------------------------------|-------|------------|-----|---------|---------------|------------------|
|                                     | Alkalinity (Total)                  | 00410 |            |     |         |               |                  |
|                                     | Alkalinity, Ca CO <sub>3</sub> Sat. | 74023 |            |     |         |               |                  |
|                                     | Ammonia - N                         | 00608 |            |     |         |               |                  |
|                                     | Chloride                            | 00940 |            |     |         |               |                  |
|                                     | Color*                              | 00081 |            |     |         |               |                  |
|                                     | Conductance*, spec.                 | 00095 |            |     |         |               |                  |
|                                     | Dissolved Solids                    | 70300 |            |     |         |               |                  |
|                                     | Hardness                            | 00900 |            |     |         |               |                  |
|                                     | Fluoride                            | 00951 |            |     |         |               |                  |
|                                     | Nitrite, N                          | 00615 |            |     |         |               |                  |
| <input checked="" type="checkbox"/> | Nitrate - Nitrate, N                | 00630 |            |     | 3.4     | 7-12-94       | BR               |
|                                     | pH*, Ca CO <sub>3</sub> SAT         | 70311 |            |     |         |               |                  |
|                                     | Sulfate                             | 00945 |            |     |         |               |                  |
|                                     | Total Solids                        | 00500 |            |     |         |               |                  |
|                                     | Turbidity*                          | 00076 |            |     |         |               |                  |
|                                     | Other:                              |       |            |     |         |               |                  |

\* Results reported in Units, all others in milligrams per liter (ppm)

Number of Tests Requested 01

Section Chief Asoka I. Katumuluwa

Date Reported 13

Lab No. Date Received

080093 4-3 82

OS: 119 11 III 12  
**WATER ANALYSIS**

Do not write above this line.

**SAMPLED**

Bottle Number HO-ROSS-T Name ROSSER, OZGA County HOWARD County Code 13

Source LOT 2 CATTAIL RUN BUSHY PARK RD WOODBINE Date Category Code 4F

Collected: Date 7/7/94 Time 10 50 Collector & Phone B NIXON 313-2644 Submitter Code

**CHECK (one per box)**

|  |   |  |                                    |
|--|---|--|------------------------------------|
| Drinking Water <input checked="" type="checkbox"/> | Community <input type="checkbox"/>          | Source (raw water) <input checked="" type="checkbox"/> | Emergency <input type="checkbox"/> |
| Landfill <input type="checkbox"/>                  | Non-community <input type="checkbox"/>      | Distribution (treated) <input type="checkbox"/>        | Routine <input type="checkbox"/>   |
| Stream <input type="checkbox"/>                    | Private <input checked="" type="checkbox"/> | MCL <input type="checkbox"/>                           | Recheck <input type="checkbox"/>   |
| Other <input type="checkbox"/>                     | Other <input checked="" type="checkbox"/>   |  | Special <input type="checkbox"/>   |

Federal Project

**FIELD**

Plant No.  Sampling Station  Preservation: Iced  Acid  Type of Acid NONE

pH 6.6 Chlorine: Free  Total  Specific Conductance

Notes to Lab/Remarks: HO 94 0104

*JPR*

| CHECK TESTS                         | TESTS                               | CODES | ERROR CODE | G/L | RESULTS | DATE ANALYZED | ANALYST INITIALS |
|-------------------------------------|-------------------------------------|-------|------------|-----|---------|---------------|------------------|
| <input type="checkbox"/>            | Alkalinity (Total)                  | 00410 |            |     |         |               |                  |
| <input type="checkbox"/>            | Alkalinity, Ca CO <sub>3</sub> Sat. | 74023 |            |     |         |               |                  |
| <input type="checkbox"/>            | Ammonia - N                         | 00608 |            |     |         |               |                  |
| <input type="checkbox"/>            | Chloride                            | 00940 |            |     |         |               |                  |
| <input type="checkbox"/>            | Color*                              | 00081 |            |     |         |               |                  |
| <input type="checkbox"/>            | Conductance*, spec.                 | 00095 |            |     |         |               |                  |
| <input type="checkbox"/>            | Dissolved Solids                    | 70300 |            |     |         |               |                  |
| <input type="checkbox"/>            | Hardness                            | 00900 |            |     |         |               |                  |
| <input type="checkbox"/>            | Fluoride                            | 00951 |            |     |         |               |                  |
| <input type="checkbox"/>            | Nitrite, N                          | 00615 |            |     |         |               |                  |
| <input type="checkbox"/>            | Nitrate - Nitrate, N                | 00630 |            |     |         |               |                  |
| <input type="checkbox"/>            | pH*, Ca CO <sub>3</sub> SAT         | 70311 |            |     |         |               |                  |
| <input type="checkbox"/>            | Sulfate                             | 00945 |            |     |         |               |                  |
| <input type="checkbox"/>            | Total Solids                        | 00500 |            |     |         |               |                  |
| <input checked="" type="checkbox"/> | Turbidity*                          | 00076 |            | L   | 0.5     | 7-8-94        | J. L.            |
| <input type="checkbox"/>            | Other:                              |       |            |     |         |               |                  |

\* Results reported in Units, all others in milligrams per liter (ppm)

Number of Tests Requested 01

Section Chief Asoka I. K...

Date Reported JUL 8 1994

**Volatile Organics**  
**EPA Method 524.2**

Client: HOWARD COUNTY HEALTH DEPT/CARRS MILL RD  
 Client Sample ID: HO-ROSSER-BK  
 SPECTRALYTIX Sample ID: HCH94-020-94070138      Sample Type: Water  
 Date Sampled : 07/07/94                              Date Received: 07/08/94  
 Date Analyzed: 07/11/94                              Analyst: E Kebede

| <u>Analyte</u>                  | <u>Result</u> | <u>Detection Limit</u> | <u>Units</u> |
|---------------------------------|---------------|------------------------|--------------|
| Benzene                         | ND            | 1                      | µg/L         |
| Bromobenzene                    | ND            | 1                      | µg/L         |
| Bromodichloromethane            | ND            | 1                      | µg/L         |
| Bromoform                       | ND            | 1                      | µg/L         |
| Bromomethane                    | ND            | 1                      | µg/L         |
| Carbon Tetrachloride            | ND            | 1                      | µg/L         |
| Chlorobenzene                   | ND            | 1                      | µg/L         |
| Chloroethane                    | ND            | 1                      | µg/L         |
| Chloroform                      | ND            | 1                      | µg/L         |
| Chloromethane                   | ND            | 1                      | µg/L         |
| cis 1,2-Dichloroethene          | ND            | 1                      | µg/L         |
| 2-Chlorotoluene                 | ND            | 1                      | µg/L         |
| 4-Chlorotoluene                 | ND            | 1                      | µg/L         |
| Dibromochloromethane            | ND            | 1                      | µg/L         |
| 1,2-Dibromochloropropane (DBCP) | ND            | 1                      | µg/L         |
| 1,2-Dibromoethane (EDB)         | ND            | 1                      | µg/L         |
| Dibromomethane                  | ND            | 1                      | µg/L         |
| Dichlorobenzene, total          | ND            | 1                      | µg/L         |
| Bromochloromethane              | ND            | 1                      | µg/L         |
| trans 1,2-Dichloroethene        | ND            | 1                      | µg/L         |
| Trichlorofluoromethane          | ND            | 1                      | µg/L         |
| 1,1-Dichloroethane              | ND            | 1                      | µg/L         |
| 1,1-Dichloroethene              | ND            | 1                      | µg/L         |
| Tert-Butylbenzene               | ND            | 1                      | µg/L         |
| Sec-Butylbenzene                | ND            | 1                      | µg/L         |
| 1,2-Dichloroethane              | ND            | 1                      | µg/L         |
| 1,2-Dichloroethene, total       | ND            | 1                      | µg/L         |
| N-Propylbenzene                 | ND            | 1                      | µg/L         |
| Hexachlorobutadiene             | ND            | 1                      | µg/L         |
| 1,2-Dichloropropane             | ND            | 1                      | µg/L         |
| 1,3-Dichloropropane             | ND            | 1                      | µg/L         |
| 2,2-Dichloropropane             | ND            | 1                      | µg/L         |
| 1,1-Dichloropropene             | ND            | 1                      | µg/L         |
| cis-1,3-Dichloropropene         | ND            | 1                      | µg/L         |
| trans-1,3-Dichloropropene       | ND            | 1                      | µg/L         |

ND = Compound not detected at or above the listed detection limit.

**Volatile Organics****EPA Method 524.2**

(continued)

Client: HOWARD COUNTY HEALTH DEPT/CARRS MILL RD

Client Sample ID: HO-ROSSER-BK

SPECTRALYTIX Sample ID: HCH94-020-94070138 Sample Type: Water

Date Sampled : 07/07/94

Date Received: 07/08/94

Date Analyzed: 07/11/94

Analyst: E Kebede

---

| <u>Analyte</u>            | <u>Result</u> | <u>Detection<br/>Limit</u> | <u>Units</u> |
|---------------------------|---------------|----------------------------|--------------|
| Ethylbenzene              | ND            | 1                          | µg/L         |
| Methylene Chloride        | ND            | 1                          | µg/L         |
| Styrene                   | ND            | 1                          | µg/L         |
| 1,1,1,2-Tetrachloroethane | ND            | 1                          | µg/L         |
| 1,1,2,2-Tetrachloroethane | ND            | 1                          | µg/L         |
| Tetrachloroethene         | ND            | 1                          | µg/L         |
| Toluene                   | ND            | 1                          | µg/L         |
| 1,1,1-Trichloroethane     | ND            | 1                          | µg/L         |
| 1,1,2-Trichloroethane     | ND            | 1                          | µg/L         |
| Trichloroethene           | ND            | 1                          | µg/L         |
| 1,2,3-Trichloropropane    | ND            | 1                          | µg/L         |
| Vinyl Chloride            | ND            | 1                          | µg/L         |
| Xylene (total)            | ND            | 1                          | µg/L         |
| Isopropylbenzene          | ND            | 1                          | µg/L         |
| P-Isopropyltoluene        | ND            | 1                          | µg/L         |
| N-Butylbenzene            | ND            | 1                          | µg/L         |
| 1,3,5-Trimethylbenzene    | ND            | 1                          | µg/L         |
| 1,2,4-Trimethylbenzene    | ND            | 1                          | µg/L         |
| 1,2,4-Trichlorobenzene    | ND            | 1                          | µg/L         |
| 1,2,3-Trichlorobenzene    | ND            | 1                          | µg/L         |
| Naphthalene               | ND            | 1                          | µg/L         |

Units of µg/L are equivalent to ppb.

ND = Compound not detected at or above the listed detection limit.

**Volatile Organics  
EPA Method 524.2**

Client: HOWARD COUNTY HEALTH DEPT/CARRS MILL RD  
 Client Sample ID: HO-ROSSER-7  
 SPECTRALYTIX Sample ID: HCH94-020-94070139      Sample Type: Water  
 Date Sampled : 07/07/94      Date Received: 07/08/94  
 Date Analyzed: 07/11/94      Analyst: E Kebede

| <u>Analyte</u>                  | <u>Result</u> | <u>Detection Limit</u> | <u>Units</u> |
|---------------------------------|---------------|------------------------|--------------|
| Benzene                         | ND            | 1                      | µg/L         |
| Bromobenzene                    | ND            | 1                      | µg/L         |
| Bromodichloromethane            | ND            | 1                      | µg/L         |
| Bromoform                       | ND            | 1                      | µg/L         |
| Bromomethane                    | ND            | 1                      | µg/L         |
| Carbon Tetrachloride            | ND            | 1                      | µg/L         |
| Chlorobenzene                   | ND            | 1                      | µg/L         |
| Chloroethane                    | ND            | 1                      | µg/L         |
| Chloroform                      | ND            | 1                      | µg/L         |
| Chloromethane                   | ND            | 1                      | µg/L         |
| cis 1,2-Dichloroethene          | ND            | 1                      | µg/L         |
| 2-Chlorotoluene                 | ND            | 1                      | µg/L         |
| 4-Chlorotoluene                 | ND            | 1                      | µg/L         |
| Dibromochloromethane            | ND            | 1                      | µg/L         |
| 1,2-Dibromochloropropane (DBCP) | ND            | 1                      | µg/L         |
| 1,2-Dibromoethane (EDB)         | ND            | 1                      | µg/L         |
| Dibromomethane                  | ND            | 1                      | µg/L         |
| Dichlorobenzene, total          | ND            | 1                      | µg/L         |
| Bromochloromethane              | ND            | 1                      | µg/L         |
| trans 1,2-Dichloroethene        | ND            | 1                      | µg/L         |
| Trichlorofluoromethane          | ND            | 1                      | µg/L         |
| 1,1-Dichloroethane              | ND            | 1                      | µg/L         |
| 1,1-Dichloroethene              | ND            | 1                      | µg/L         |
| Tert-Butylbenzene               | ND            | 1                      | µg/L         |
| Sec-Butylbenzene                | ND            | 1                      | µg/L         |
| 1,2-Dichloroethane              | ND            | 1                      | µg/L         |
| 1,2-Dichloroethene, total       | ND            | 1                      | µg/L         |
| N-Propylbenzene                 | ND            | 1                      | µg/L         |
| Hexachlorobutadiene             | ND            | 1                      | µg/L         |
| 1,2-Dichloropropane             | ND            | 1                      | µg/L         |
| 1,3-Dichloropropane             | ND            | 1                      | µg/L         |
| 2,2-Dichloropropane             | ND            | 1                      | µg/L         |
| 1,1-Dichloropropene             | ND            | 1                      | µg/L         |
| cis-1,3-Dichloropropene         | ND            | 1                      | µg/L         |
| trans-1,3-Dichloropropene       | ND            | 1                      | µg/L         |

ND = Compound not detected at or above the listed detection limit.

Volatile Organics  
EPA Method 524.2  
(continued)

Client: HOWARD COUNTY HEALTH DEPT/CARRS MILL RD

Client Sample ID: HO-ROSSER-7

SPECTRALYTIX Sample ID: HCH94-020-94070139 Sample Type: Water

Date Sampled : 07/07/94

Date Received: 07/08/94

Date Analyzed: 07/11/94

Analyst: E Kebede

| <u>Analyte</u>            | <u>Result</u> | <u>Detection<br/>Limit</u> | <u>Units</u> |
|---------------------------|---------------|----------------------------|--------------|
| Ethylbenzene              | ND            | 1                          | µg/L         |
| Methylene Chloride        | ND            | 1                          | µg/L         |
| Styrene                   | ND            | 1                          | µg/L         |
| 1,1,1,2-Tetrachloroethane | ND            | 1                          | µg/L         |
| 1,1,2,2-Tetrachloroethane | ND            | 1                          | µg/L         |
| Tetrachloroethene         | ND            | 1                          | µg/L         |
| Toluene                   | ND            | 1                          | µg/L         |
| 1,1,1-Trichloroethane     | ND            | 1                          | µg/L         |
| 1,1,2-Trichloroethane     | ND            | 1                          | µg/L         |
| Trichloroethene           | ND            | 1                          | µg/L         |
| 1,2,3-Trichloropropane    | ND            | 1                          | µg/L         |
| Vinyl Chloride            | ND            | 1                          | µg/L         |
| Xylene (total)            | ND            | 1                          | µg/L         |
| Isopropylbenzene          | ND            | 1                          | µg/L         |
| P-Isopropyltoluene        | ND            | 1                          | µg/L         |
| N-Butylbenzene            | ND            | 1                          | µg/L         |
| 1,3,5-Trimethylbenzene    | ND            | 1                          | µg/L         |
| 1,2,4-Trimethylbenzene    | ND            | 1                          | µg/L         |
| 1,2,4-Trichlorobenzene    | ND            | 1                          | µg/L         |
| 1,2,3-Trichlorobenzene    | ND            | 1                          | µg/L         |
| Naphthalene               | ND            | 1                          | µg/L         |

Units of µg/L are equivalent to ppb.

ND = Compound not detected at or above the listed detection limit.



# Commercial Testing & Engineering Co.

Environmental Laboratory Services

## LABORATORY ANALYSIS REPORT

Howard County Health Department

Laboratory Number BK144

Respectfully Submitted:

HO-ROSS-T1 LOT 2 BUSHY PARK ROAD  
CARRS MILL ROAD

Date Sampled 07/07/94 10:50  
Date Received 07/07/94

Sampled by CLIENT

071894 1100

ANALYSIS FOR REQUESTED PARAMETERS  
ALL RESULTS ARE REPORTED ON AN AS RECEIVED BASIS

| PARAMETER       | RESULT | MDL | UNIT | METHOD   | ANALYZED          |
|-----------------|--------|-----|------|----------|-------------------|
|                 |        |     |      |          | DATE/TIME/ANALYST |
| Turbidity (lab) | 20     | 0.1 | NTU  | EPA180.1 | 07/09/94 10:40 KV |

ND - Not Detected at a concentration greater than the MDL (Method Detection Limit).

Methods for Chemical Analysis of Water and Waste, EPA-600/4-79-020, March 1983.



# Commercial Testing & Engineering Co.

Environmental Laboratory Services

## LABORATORY ANALYSIS REPORT

Howard County Health Department

Laboratory Number BK145

Respectfully  
Submitted:

HO-ROSS-DISS LOT 2 PUMP TEST  
CARRS MILL ROAD

Date Sampled 07/07/94 10:40  
Date Received 07/07/94

Sampled by CLIENT

R071894 1106

ANALYSIS FOR REQUESTED PARAMETERS  
ALL RESULTS ARE REPORTED ON AN AS RECEIVED BASIS

| PARAMETER                | RESULT | MDL    | UNIT | METHOD   | ANALYZED       |         |
|--------------------------|--------|--------|------|----------|----------------|---------|
|                          |        |        |      |          | DATE/TIME      | ANALYST |
| Aluminum [Al] (soluble)  | ND     | 0.01   | mg/L | EPA213.2 | 07/14/94 13:30 | ED      |
| Antimony [Sb] (soluble)  | ND     | 0.005  | mg/L | EPA204.2 | 07/18/94 07:30 | ED      |
| Arsenic [As] (soluble)   | ND     | 0.005  | mg/L | EPA206.2 | 07/13/94 17:30 | CS      |
| Beryllium [Be] (soluble) | ND     | 0.002  | mg/L | EPA210.2 | 07/15/94 14:00 | ED      |
| Cadmium [Cd] (soluble)   | ND     | 0.0005 | mg/L | EPA213.2 | 07/11/94 21:00 | ED      |
| Chromium [Cr] (soluble)  | ND     | 0.005  | mg/L | EPA218.2 | 07/15/94 16:00 | ED      |
| Copper [Cu] (soluble)    | ND     | 0.001  | mg/L | EPA220.2 | 07/18/94 10:00 | ED      |
| Lead [Pb] (soluble)      | ND     | 0.005  | mg/L | EPA239.2 | 07/18/94 07:30 | ED      |
| Mercury [Hg] (soluble)   | ND     | 0.0005 | mg/L | EPA245.1 | 07/11/94 08:00 | DP      |
| Nickel [Ni] (soluble)    | ND     | 0.005  | mg/L | EPA249.2 | 07/18/94 09:15 | ED      |
| Selenium [Se] (soluble)  | ND     | 0.005  | mg/L | EPA270.2 | 07/13/94 18:45 | CS      |
| Silver [Ag] (soluble)    | ND     | 0.0025 | mg/L | EPA272.2 | 07/11/94 16:30 | ED      |
| Thallium [Tl] (soluble)  | ND     | 0.001  | mg/L | EPA279.2 | 07/15/94 17:30 | ED      |
| Zinc [Zn] (soluble)      | 0.014  | 0.008  | mg/L | EPA289.1 | 07/18/94 09:00 | SH      |

Methods for Chemical Analysis of Water and Waste, EPA-600/4-79-020, March 1983.

ND - Not Detected at a concentration greater than the MDL (Method Detection Limit).

1258 Greenbrier Street, Charleston, WV 25311 — Tel: (304) 346-0725 Fax: (304) 346-0761  
4643 Benson Avenue, Baltimore, MD 21227 — Tel: (410) 247-7400 Fax: (410) 247-7402

4440 Glen Este-Withamsville Road, Suite 900, Cincinnati, OH 45245 — Tel: (513) 752-9696 Fax: (513) 752-2614



# Commercial Testing & Engineering Co.

Environmental Laboratory Services

## LABORATORY ANALYSIS REPORT

Howard County Health Department

Laboratory Number BK146

Respectfully  
Submitted:

HO-ROSS-M1  
CARRS MILL ROAD

Date Sampled 07/07/94 10:45  
Date Received 07/07/94

Sampled by CLIENT

071894 1100

ANALYSIS FOR REQUESTED PARAMETERS  
ALL RESULTS ARE REPORTED ON AN AS RECEIVED BASIS

| PARAMETER              | RESULT | MDL    | UNIT | METHOD   | ANALYZED          |
|------------------------|--------|--------|------|----------|-------------------|
|                        |        |        |      |          | DATE/TIME/ANALYST |
| Aluminum [Al] (total)  | 0.03   | 0.01   | mg/L | EPA202.2 | 07/14/94 13:30 ED |
| Antimony [Sb] (total)  | ND     | 0.005  | mg/L | EPA204.2 | 07/18/94 07:30 ED |
| Arsenic [As] (total)   | ND     | 0.005  | mg/L | EPA206.2 | 07/15/94 08:30 ED |
| Beryllium [Be] (total) | ND     | 0.002  | mg/L | EPA210.2 | 07/15/94 14:00 ED |
| Cadmium [Cd] (total)   | ND     | 0.0005 | mg/L | EPA213.2 | 07/11/94 21:00 ED |
| Chromium [Cr] (total)  | ND     | 0.005  | mg/L | EPA218.2 | 07/15/94 16:00 ED |
| Copper [Cu] (total)    | 0.001  | 0.001  | mg/L | EPA220.2 | 07/18/94 10:00 ED |
| Lead [Pb] (total)      | ND     | 0.005  | mg/L | EPA239.2 | 07/18/94 07:30 ED |
| Mercury [Hg] (total)   | ND     | 0.0005 | mg/L | EPA245.1 | 07/11/94 08:00 DP |
| Nickel [Ni] (total)    | 0.007  | 0.005  | mg/L | EPA249.2 | 07/18/94 09:15 ED |
| Selenium [Se] (total)  | ND     | 0.005  | mg/L | EPA270.2 | 07/13/94 18:45 CS |
| Silver [Ag] (total)    | ND     | 0.0025 | mg/L | EPA272.2 | 07/11/94 16:30 ED |
| Thallium [Tl] (total)  | ND     | 0.001  | mg/L | EPA279.2 | 07/15/94 17:30 ED |
| Zinc [Zn] (total)      | ND     | 0.008  | mg/L | EPA289.1 | 07/18/94 09:00 SH |

Methods for Chemical Analysis of Water and Waste, EPA-600/4-79-020, March 1983.

ND - Not Detected at a concentration greater than the MDL (Method Detection Limit).



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HOWARD COUNTY HEALTH DEPARTMENT

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Joyce M. Boyd, M.D., County Health Officer

July 19, 1994

Ms. Olga Rosser  
15612 Bushy Park Road  
Woodbine, MD 21797

RE: Water Sample Results

Dear Ms. Rosser:

To verify general groundwater quality for the well serving Lot 2 (tag #HO-94-0104), a series of samples were collected during the pump test on July 7, 1994. Sample analyses included volatile organic compounds (VOC's), select metal parameters, Nitrate and turbidity.

The sample submitted to Spectralytix for VOC analysis was free of all tested compounds to limit of detection for the test method employed. With respect to these compounds, your well water supply appears safe for consumption.

The sample submitted to Commercial Testing & Engineering (CTE) for total and soluble metal analysis revealed the following:

| <u>Total</u> |             |       | <u>Soluble</u> |             |      |
|--------------|-------------|-------|----------------|-------------|------|
| Compound     | Level (ppm) | MCL   | Compound       | Level (ppm) | MCL  |
| Aluminum     | 0.03        | 0.05* | Zinc           | 0.014       | 5.0* |
| Copper       | 0.001       | 1.0*  |                |             |      |
| Nickel       | 0.007       | 0.1   |                |             |      |

\*Denotes Federally Non-Enforceable Secondary Drinking Water Guidelines For Aesthetic Purposes

No other tested metals were observed to the method detection limit for the protocols employed.

A sample submitted to the State Laboratory for evaluation of Nitrates, revealed a level of 3.4 parts per million (ppm). This is below the current MCL of 10 ppm.

Finally, split samples for turbidity were sent to the State Laboratory and CTE. Results of this testing are <0.5 nephelometric turbidity units (NTU's) and 20 NTU's. The current performance standard is .5 - 1.0 NTU's. Though the results appear dissimilar, the general clarity of the submitted samples suggest the lower value is more reflective of the actual samples.

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Bureau of Environmental Health  
3525-H Ellicott Mills Drive Ellicott City, Maryland 21043-4544  
Water and Sewerage, Permits (410) 313-2640 Community Environmental Health (410) 313-2642  
Director (410) 313-2645 TDD (410) 313-2323

July 19, 1994

A copy of each test report is enclosed for your information.

If you should have any questions, you may contact me at 313-2644.

Very truly yours,



Bert Nixon, Director  
Community Env. Health Program

BN/vf

Enclosures

cc: Evelyn Tomlin  
Craig Williams