

C1 12134 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

COUNTY NUMBER 13

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

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED 5 13 02

Depth of Well 350 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-94-3065

OWNER IKO last name FOX HUNT CT first name TOWN WEST FRIENDSHIP MD SUBDIVISION FOX CREEK SECTION LOT 25

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. Includes handwritten entries: BROWN SHALE 0-30, BLUE SLATE 30-300, BLUE SLATE 300-550. Includes note: 'THIS WELL WAS DEEPENED FROM 300' TO 550' AFTER IT WAS TEST PUMPED'. Includes note: 'WATER AT 48''.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) (N) TYPE OF GROUTING MATERIAL (C) (M) (B) (C) NO. OF BAGS 12 NO. OF POUNDS 1128 GALLONS OF WATER 72 DEPTH OF GROUT SEAL (to nearest foot) from 0 TOP 52 ft. to 39 BOTTOM 58 ft.

CASING RECORD

MAIN CASING TYPE (S) (T) (P) (L) (O) (T) Nominal diameter top (main) casing (nearest inch)! 6 Total depth of main casing (nearest foot) 40

OTHER CASING (if used)

Table for other casing with columns: diameter inch, depth (feet) from, to.

SCREEN RECORD

screen type or open hole (S) (T) (B) (R) (H) (O) (P) (L) (O) (T) (P) (L) (O) (T) (P) (L) (O) (T)

DEPTH (nearest ft.)

DEPTH (nearest ft.) 40 39 550. Includes slot size and diameter of screen information.

C 3

PUMPING TEST

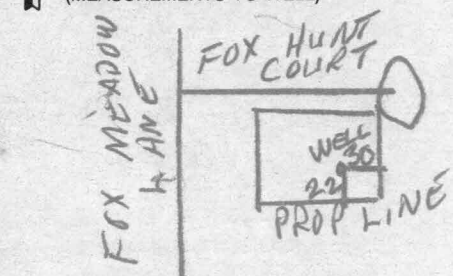
HOURS PUMPED (nearest hour) 1 PUMPING RATE (gal. per min.) 1.5 METHOD USED TO MEASURE PUMPING RATE TIME WATER LEVEL (distance from land surface) BEFORE PUMPING 42 ft. WHEN PUMPING 550 ft. TYPE OF PUMP USED (for test) (A) air (P) piston (T) turbine (C) centrifugal (R) rotary (O) other (describe below) (J) jet (S) submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES) (NO) IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS. TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35 PUMP HORSE POWER 37 41 PUMP COLUMN LENGTH (nearest ft.) 43 47 CASING HEIGHT (circle appropriate box and enter casing height) (A) above LAND SURFACE () below (nearest foot) 50 51

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y) (N)

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

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

DRILLERS LIC. NO. 1 MWD 139 DRILLERS SIGNATURE Robert C. Lino

LIC. NO. 1 MWD 536 DRILLERS SIGNATURE Robert C. Lino Jr.

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

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

TELESCOPE CASING LOG INDICATOR OTHER DATA

C1 0700 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY PLEASE TYPE

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

COUNTY NUMBER 13 Kg 9/22/01

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

ST/CO USE ONLY DATE Received MM DD YY DATE WELL COMPLETED MM DD YY Depth of Well 22 300 26 (TO NEAREST FOOT) PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-94-3006

OWNER TKO last name first name STREET OR RFD Fox Hunt Court TOWN West Friendship MD SUBDIVISION Fox Creek SECTION LOT 25

WELL LOG
Not required for driven wells

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

| DESCRIPTION (Use additional sheets if needed) | FEET | | check if water bearing |
|---|------|-----|------------------------|
| | FROM | TO | |
| BROWN SHALE | 0 | 30 | |
| BLUE MICA | 30 | 300 | ✓ |

WATER AT 48'

GROUTING RECORD yes no
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N
TYPE OF GROUTING MATERIAL (Circle one) CM CEMENT BC BENTONITE CLAY
NO. OF BAGS 12 NO. OF POUNDS 1128
GALLONS OF WATER 72
DEPTH OF GROUT SEAL (to nearest foot) from 0 TOP 48 52 ft. to 39 BOTTOM 54 58 ft. (enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
 ST STEEL CO CONCRETE
 PL PLASTIC OT OTHER
MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)
ST 6 40
60 61 63 64 66 70

OTHER CASING (if used)
E A C H diameter depth (feet) inch from to
C A S I N G

SCREEN RECORD
screen type or open hole (insert appropriate code below)
 ST STEEL BR BRASS HO OPEN HOLE
 PL PLASTIC OT OTHER
DEPTH (nearest ft.)
HO 39 300
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED Y N

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

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

DRILLERS LIC. NO. M MD 139
Robert Cline
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. MWD 536
Robert Cline

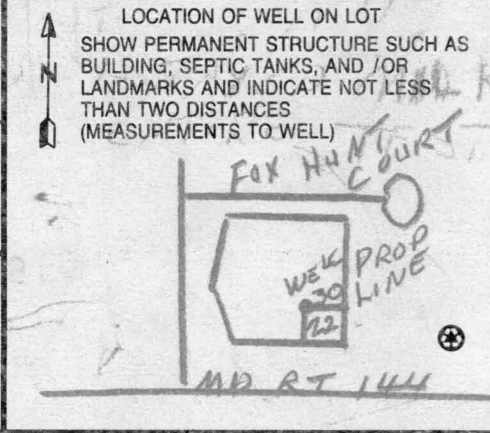
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

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

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

C 3
PUMPING TEST
HOURS PUMPED (nearest hour) 6
PUMPING RATE (gal. per min.) 1.3
METHOD USED TO MEASURE PUMPING RATE TIME
WATER LEVEL (distance from land surface) BEFORE PUMPING 42 ft. WHEN PUMPING 148 ft.
TYPE OF PUMP USED (for test)
 S submersible
 A air P piston T turbine
 C centrifugal R rotary O other (describe below)
 J jet

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. 29
CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35
PUMP HORSE POWER 37 41
PUMP COLUMN LENGTH (nearest ft.) 43 47
CASING HEIGHT (circle appropriate box and enter casing height) + above } LAND SURFACE (nearest foot) 1
 - below }



B 1 0631

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND PERMIT TO DRILL WELL please print or type

STATE PERMIT NUMBER HO-94-3005 4

OWNER INFORMATION Date Received (APA) 02/21/01 IKO-Dennant Development 3403 Olandwood Court, Suite 101 Olney, MD 20832

LOCATION OF WELL B 3 Howard County 21 Fox Creek 42 SECTION 44 46 LOT 30 25 West Friendship 71 MILES FROM TOWN 1 M

DRILLER INFORMATION Robert L. Cline M W D 139 Cline & Duvall, Inc. 8093 Hillmark Ct., Frederick, MD 21704 Robert L. Cline 2-20-01

B 4 1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) Fox Hunt Court 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH SOUTH WEST EAST DISTANCE FROM ROAD 100 ft. TAX MAP: 15 BLK: PARCEL 183

WELL INFORMATION B 2 APPROX. PUMPING RATE (GAL. PER MIN.) 5 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 300

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard 13 COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S DATE ISSUED 04/02/01 CO SIGNATURE EXP. DATE NORTH GRID 535 000 EAST GRID 0817 000

USE FOR WATER (CIRCLE APPROPRIATE BOX) D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) I INDUSTRIAL, COMMERCIAL, DEWATERING P PUBLIC WATER SUPPLY WELL T TEST, OBSERVATION, MONITORING G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 250 FEET APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST TOWN

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 8107 N 5305

METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jettied & DRIVEN AIR-ROTary AIR-PE Percussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPEM AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

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

Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER H02001G001 PERMIT No. HO-94-3005

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

9/21/01

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 94-3005
 Location of property (road) Fox Hunt Court
 Subdivision Fox Creek Lot 25 Block Plat Sec.
 Well Driller Cline & Duvall Owner IKO

Depth of well 300
 Distance of measuring point (M.P.) above ground 1
 Static water level (S.W.L.) below M.P. 42

I. High rate pumping -- reservoir drawdown

Time pump started 8:30 Pumping rate 10
 Total time 30 MIN to reach pumping water level 148 ft. below M.P.

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

| TIME (in 15 minute intervals) | WATER LEVEL below M.P. | PUMPING RATE time to fill 5 gallon bucket | FLOW METER READING (if used) | CALCULATED FLOW (gallons per minute) |
|-------------------------------|------------------------|---|------------------------------|--------------------------------------|
| 8:30 | 42 | 30 SECONDS | | 10 |
| 8:45 | 99 | 30 " | | 10 |
| 8:58 | 147 | 30 " | | 10 |
| 9:00 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 9:15 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 9:30 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 9:45 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 10:00 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 10:15 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 10:30 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 10:45 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 11:00 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 11:15 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 11:30 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 11:45 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 12:00 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 12:15 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 12:30 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 12:45 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 1:00 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 1:15 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 1:30 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 1:45 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 2:00 | 148 | 3 MIN. 45 SEC | | 1.3 |
| HD-224 2:15 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 2:30 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 2:45 | 148 | 3 MIN. 45 SEC | | 1.3 |
| 3:00 | 148 | 3 MIN. 45 SEC | | 1.3 |

**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: Vansant Plumbing Telephone #: 301.829.0444
Address: 301 Main St
Mt Airy MD 21771

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

License # and name of individual responsible for the field installation:
Name (Print): Larry Vansant License# 169316

*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: UV Adams Telephone #: 410.379.5956
Subdivision: 400 Creek Lot #: 25 Well Tag #: HO-94-3065
Site Address: 12328 400 Meadowlark
Ellicott City MD 21043

| | | |
|---|----------------------------|--|
| Submersible Pump Data | Pitless Adapter | Well Cap and Electric Conduit |
| Make: <u>Grundfos</u> | Make: <u>Campbell</u> | Two piece watertight cap: <input checked="" type="checkbox"/> |
| Model #: <u>SG 31042</u> | Model #: <u>310X</u> | Screened, vented well cap: <input checked="" type="checkbox"/> |
| Pump Capacity: _____ GPM | Depth: <u>43</u> (36" min) | Cap secured to casing: <input checked="" type="checkbox"/> |
| Well Yield: <u>1.5</u> GPM | NSF approved: _____ | Conduit min 18" B.G.: <input checked="" type="checkbox"/> |
| Depth of well encountered at time of pump installation: <u>500</u> (feet) | | Conduit secured to well cap: <input checked="" type="checkbox"/> |

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque wrenches or Cable guards are required - Must circle one
Safety rope, if used, attached to inside of well casing with eye bolt NO

Piping to house
Type: polyethylene
PSI: 200 (160 psi min)
Depth of supply line: 12 (36" min)

House Connection
PVC sleeved to undisturbed soil at wall penetration: 15
Approximate length of sleeve: 15
Sleeve caulked and sealed properly: yes

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: _____ date: 10.27.03

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

Date Insp. Requested: 10/3/03 Date Insp. Approved: 10/3/03 (50) SRK

- 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



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

November 4, 2003

NVR Inc.
2200 Defense Hwy., Suite 301
Crofton, MD 21114

SENT VIA FACSIMILE 410-379-2430

RE: Fox Creek, Lot 25
12328 Fox Meadow Lane
BP # B00139288
Well Permit #HO-94-3065

Dear Sirs:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on October 29, 2003.**

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

The raw nitrate sample results were previously documented to be 15.2 ppm. **A nitrate device has been installed to treat the excessive nitrate contamination. The nitrate treatment device appears to be operating properly as evidenced by the water sample results reported on November 3, 2003, which indicates a nitrate level of 4.3 ppm.**

COMAR 26.04.04.09 prohibits approval of any water supply with a nitrate-nitrogen contaminant level in excess of 10 parts per million. **This department will grant a permanent deviation to that section of the regulation on condition that the nitrate removal system effectively maintains the nitrate-nitrogen contaminant level of 10 ppm or less.**

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 laboratory certified for water testing perform a yearly nitrate analysis. (Certified to test for nitrates)
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of the above condition.

INTERIM CERTIFICATE OF POTABILITY
(Permanent Deviation for Nitrates)

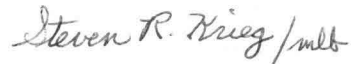
This certifies that **the initial** sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-94-3065. **Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.** Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological and nitrate tests, which may be taken by the health department within six months of the date of this letter. Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.

Date of Water Sample(s): October 29, 2003 & November 3, 2003

Date of Well Completion: May 13, 2002

Respectfully,



Steven R. Krieg
Registered Environmental Sanitarian
Approving Authority
Well and Septic Program

mlb
cc: Building Inspector's office,
 Community Environmental Health Program
 File