

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.

1 2 3 4 5 6
 (THIS NUMBER IS TO BE PUNCHED
 IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER A 40839

ST/CO USE ONLY
 DATE RECEIVED
 MM DD YY
8 13

DATE WELL COMPLETED
 MM DD YY
7/6/04

Depth of Well
 22 200 26 OK 10/25/04
 (TO NEAREST FOOT)

PERMIT NO.
 FROM "PERMIT TO DRILL WELL"
HO - 94 - 3972
 28 29 30 31 32 33 34 35 36 37

OWNER Garcia
 STREET OR RFD 3100 McNeal Rd TOWN Woodbine
 SUBDIVISION 14/19/246 SECTION _____ LOT _____

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	
Top Soil	0	2	
Clay	2	6	
Brown Shale	6	40	
Brown Slate	40	70	✓
Tan Slate	70	80	
Brown Slate	80	82	✓
Tan Slate	82	86	
Gray Slate	86	200	

GROUTING RECORD yes no
 Y N
 44 44

WELL HAS BEEN GROUTED (Circle Appropriate Box)

TYPE OF GROUTING MATERIAL (Circle one)
 CEMENT **CM** BENTONITE CLAY **BC**

NO. OF BAGS 33 NO. OF POUNDS 3300
 45 46 45 46

GALLONS OF WATER 198

DEPTH OF GROUT SEAL (to nearest foot)
 from 0 ft. to 75 ft.
 48 TOP 52 ft. to 54 BOTTOM 58 ft.
 (enter 0 if from surface)

C 3
 1 2

PUMPING TEST

HOURS PUMPED (nearest hour) 3
 8 9

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

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)
 BEFORE PUMPING 30 ft.
 17 20
 WHEN PUMPING 34 ft.
 22 25

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

CASING RECORD

casing types insert appropriate code below

ST STEEL **CO** CONCRETE
 PL PLASTIC **OT** OTHER

MAIN CASING TYPE
 ST Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 80
 60 61 63 64 66 70

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. 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
 - below } 2 (nearest foot)
 49 50 51

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

SCREEN RECORD
 screen type or open hole insert appropriate code below

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

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED Y N

C 2
 1 2

DEPTH (nearest ft.)
HO 78 200

E	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
A	8	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	
C	23	24	26	28	30	32	34	36	38	39	41	43	45	47	49	51	53	55	57	59	61	63	
S	38	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	
R	38	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	
E	SLOT SIZE 1 _____ 2 _____ 3 _____																						
N	DIAMETER OF SCREEN (NEAREST INCH)																						
	_____ 56 _____ 60 _____																						
	from _____ to _____																						

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.

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

DRILLERS LIC. NO. MWD 040

DRILLERS SIGNATURE Beane F. Kasterling

LIC. NO. JS D 038

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

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

T (E.R.O.S.) _____ W Q _____

70 _____ 72 _____ 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

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)

Drilled on sketched

B 1 9789

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type W520438

STATE PERMIT NUMBER 110-94-3972 fill in this form completely

OWNER INFORMATION Date Received (APA) 06/24/04 9752 GARCIA CAROL 3100 MC NEAL ROAD WOODBINE, MD 21797

LOCATION OF WELL Howard CC# 8 COUNTY 21 Cavey Property 23 SUBDIVISION SECTION 44 46 LOT 48 50 pres Glenwood 52 NEAREST TOWN 71 MILES FROM TOWN 2 M 1 73 76 77 78

DRILLER INFORMATION George F. Easterday MW/VD 040 040 L. Franklin Easterday, Inc. 9265 Brown Church Rd., MT. Airy, Md. 21771 6/23/04

3100 Mc Neal Rd 11 NEAR WHAT ROAD 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH SOUTH WEST EAST DISTANCE FROM ROAD 34 300 37 Ft. ENTER FT OR MI 38 39 TAX MAP: 14 BLK 19 PARCEL 246

WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) 5 8 12 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500 14 20

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard A 40839 COUNTY NAME COUNTY NO STATE SIGNATURE INSERT S DATE ISSUED 6/30/04 CO SIGNATURE EXP. DATE 4/30/05 NORTH GRID 529 000 EAST GRID 784 000

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 300 FEET APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER 1. wells 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE E 78x4 N 53x29

METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary) CABLE REVerse-ROTary DRive-POINT other

REPLACEMENT OR 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 DEEPEAN 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 867 Union Chapel Rd McNeal Rd Glenwood

Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER G PERMIT No. 110-94-3972

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

7-7-04

8:30

FIELD DATA SHEET
 HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 94-3972
 Location of property (road) 3100 Mc Neal Rd
 Subdivision _____ Lot _____ Block 19 Plat 14 Sec. 246
 Well Driller Easterday Owner Carol Garcia

Depth of well 200 60gpm
 Distance of measuring point (M.P.) above ground 2 1/2 ft
 Static water level (S.W.L.) below M.P. 30 ft

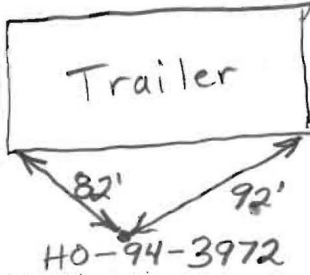
I. High rate pumping -- reservoir drawdown

Time pump started 8:30 Pumping rate 15gpm
 Total time _____ to reach pumping water level _____ 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 1 gallon bucket	FLOW METER READING (if used) Pump set 180'	CALCULATED FLOW (gallons per minute)
8:45	32 ft	4 sec		15 gpm
9:00	33 ft	4 sec		15 gpm
9:15	34 ft	4 sec		15 gpm
9:30	34 ft	4 sec		15 gpm
9:45	34 ft	4 sec		15 gpm
10:00	34 ft	4 sec		15 gpm
10:15	34 ft	4 sec		15 gpm
10:30	34 ft	4 sec		15 gpm
10:45	34 ft	4 sec		15 gpm
11:00	34 ft	4 sec		15 gpm
11:15	34 ft	4 sec		15 gpm
11:30	34 ft	4 sec		15 gpm
11:45	34 ft	4 sec		15 gpm

Wrap-On Pipe Heating Cable at Trailer



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 Line

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the installation. No work is to be covered until approved by the Health Department. All installations must conform with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 16.04.02 (Construction Regulations). Submission of a complete form is required prior to Use and Occupancy.

Company Name: KJD Plumbing & Heating Telephone #: 410-575-0917
Address: 1700 Ridge Road
WESTMIDDLER, MD 21157

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation. License # 3978
Name (Print) JOE DIXON
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: CARLOS GARCIA Telephone #: 410-489-0300
Subdivision: Lot #: HO-94-3972
Site Address: 3100 McNEAL ROAD
WILMINGTON, MD 21797

Submersible Pump Data Pitless Adapter Well Cap and Electric Conduit
Make: GRUENDL Make: MALSTON Two piece watertight cap
Model #: 106515 Model #: B BOX Screened, vented well cap
Pump Capacity 10 GPM Depth: 48" (36" min) Cap secured to casing
Well Yield 60 GPM NSF approved Conduit min 18" B.G.
Depth of well encountered at time of pump installation: 200 (feet) Conduit secured to well cap
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 199C Section 17.2.4
Torque arrestors or Cable guard are required - Must circle one
Safety rope, if used, attached to inside of well casing with eye bolt NA

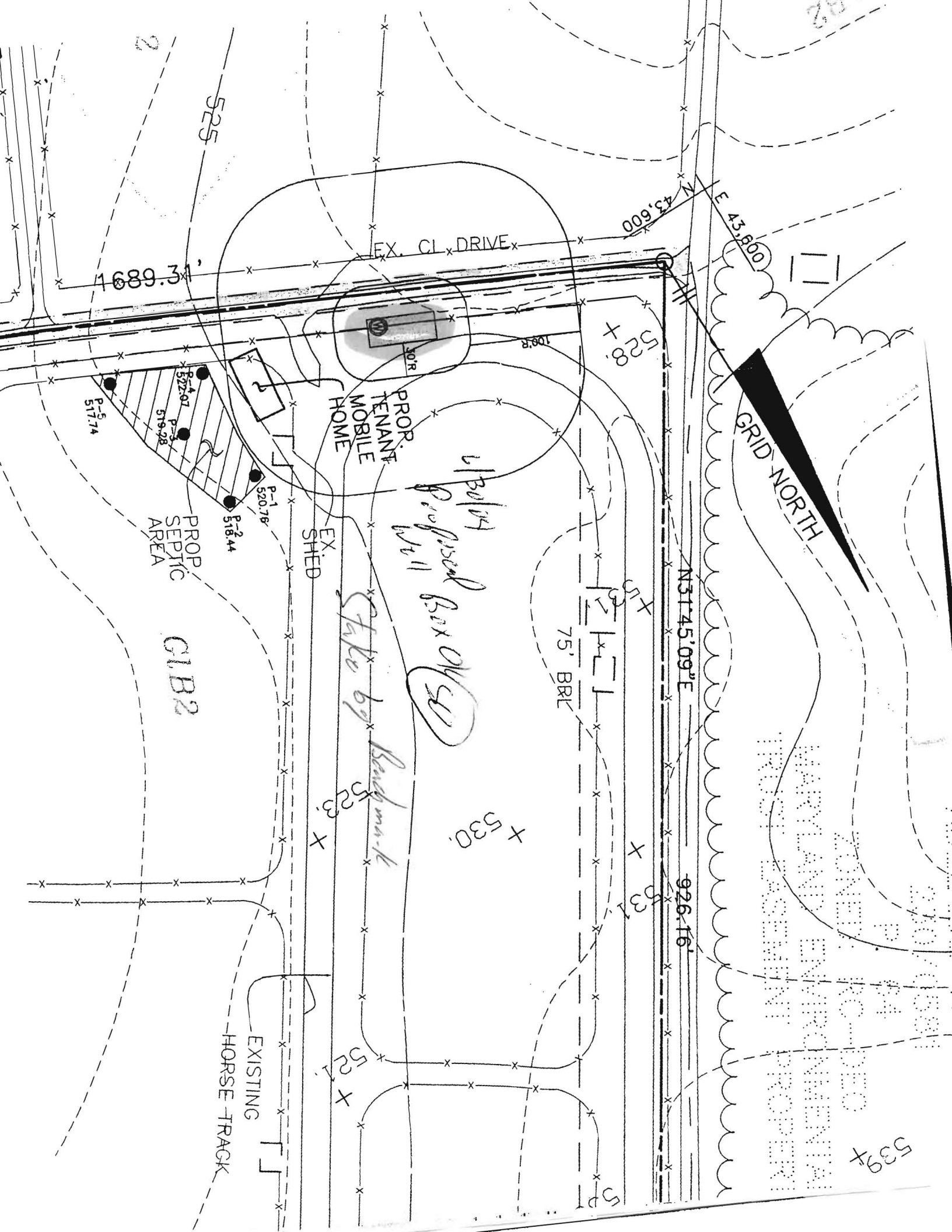
Piping to house House Connection
Type: PLASTIC (CREWLINE) PVC sleeved to undisturbed soil at wall penetration:
PSI 160 (160 psi min) Approximate length of sleeve _____ Per Code
Depth of supply line _____ (36" min) Sleeve caulked and sealed properly To Detail

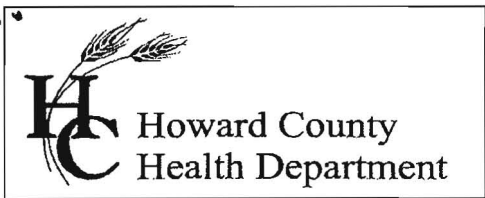
The water supply line is required to be at least ten feet from the septic tank, pump chamber, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact Health Department for approval prior to installation.

Signature of Company representative responsible for installation: [Signature] date: 10/28/04

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

Date Insp. Requested:	Date Insp. Approved:	<u>11/3/04</u> (68)
Inspection Data:	Pitless adapter and water supply line at least 36" below grade	<input checked="" type="checkbox"/>
	Two piece cap installed and attached to casing securely	<input checked="" type="checkbox"/>
	Elec. conduit extends at least 18" below grade/attached to cap properly	<input checked="" type="checkbox"/>
	Safety rope installed inside of well casing	<input checked="" type="checkbox"/>
	Correct well tag attached properly and casing 8" above finished grade	<input checked="" type="checkbox"/>
	Water supply line sleeved adequately at house connection	<input checked="" type="checkbox"/>





7178 Columbia Gateway Drive, Columbia Maryland 21046
(410) 313-1771 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penn E. Borenstein, M.D., M.P.H., Health Officer

May 23, 2005

Carlos & Carol Garcia
3100 McNeal Road
Woodbine, MD 21797

RE: Cavey Property, Pres Parcel A
3100 McNeal Road
Woodbine, MD 21797
BP #: B00149546
Well Permit # HO-94-3972

Dear Sir:

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 5/23/2005. Final approval of the well line connection to the dwelling was approved on 11/3/2004.**

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 water sample results were found to be in compliance with COMAR water quality standards.

INTERIM CERTIFICATE OF POTABILITY

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-94-3972. 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.

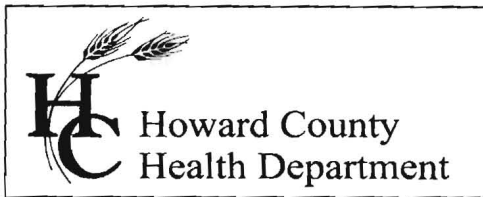
This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this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

Date of Water Samples: 2/10/2005 & 2/28/2005
Date of Well Completion: 7/6/2004

Approving Authority,

Stuart Oster, R. S.
Well & Septic Program

cc: Building Inspector's Office
Community Health Services
File



7178 Columbia Gateway Drive, Columbia MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

February 11, 2005

MEMORANDUM

TO: Bruce Forejt
Dept. of Inspections, Licenses & Permits

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

RE: Permit Number: B00149546
Address: 3100 McNeal Road

On 2/9/05, Mr. Garcia contacted this office in regards to his ICOP. I notified him that we needed a passing potable water test. The results were received today and the well has high turbidity. This can easily be lowered with the installation of an approved treatment device. After the device is installed, another water sample will need to be submitted. If this passes, we will issue the ICOP. We typically give the homeowner 15 days to correct a situation like this, however I was not sure how that fits into your time schedule. Any question, contact me at X-1788.

Cc: Thomas Huskins
File

CASSELL TESTING, INC.

ENVIRONMENTAL SAMPLING AND TESTING
 10940 BEAVER DAM ROAD, HUNT VALLEY, MD 21030-2211
 (410) 252-7742

REPORT DATE: Feb 28, 2005

County Howard

Lab Number 05-0865

Sample Iced Yes
 Residual Cl₂ <0.1 mg/L Yes

cc: County Health Dept. Yes

CERTIFICATE OF ANALYSIS

Maryland State Certified Water Quality
 Laboratory No. 116

REQUESTER: Mr. Carlos Garcia
 3100 McNeille Road
 Woodbine, Maryland 21797-7702

Property Sampled: U&O: 3100 McNeille Road, 21797-7702, Retest for Turbidity

Station Sampled: Powder room tap

Tax Map #:

Date/Time Sampled: Feb 28, 2005 9:55 am

Parcel #:

Owner, Telephone No.: Garcia

Sampler: 6724GP

Subdivision Name: Cavey Property

Lot Number: Par A

Building Permit No.: B00149346

Well Number: HO-94-3972

Observation: 2-Piece Cap
 Satisfactory

RESULTS OF ANALYSIS:

PARAMETER	RESULT	METHOD	*MCL/**SMCL	
Turbidity	9.4 NTU	EPA 180.1	*10 NTU	Pass

Treatment/Conditioning: Sediment filter



Sharon K. Cassell

*MCL = Maximum Contamination Level
 **SMCL = Secondary Maximum Contamination Level

CASSELL TESTING, INC.

ENVIRONMENTAL SAMPLING AND TESTING
 10940 BEAVER DAM ROAD, HUNT VALLEY, MD 21030-2211
 (410) 252-7742

REPORT DATE: Feb 11, 2005

County Howard

Lab Number 05-0670

Sample Iced Yes

Residual Cl₂ <0.1 mg/L Yes

cc: County Health Dept. Yes

CERTIFICATE OF ANALYSIS

Maryland State Certified Water Quality
 Laboratory No. 115

REQUESTER: Mr. Carlos Garcia
 3100 McNeille Road
 Woodbine, Maryland 21797-7702

Property Sampled: U&O: 3100 McNeille Road, 21797-7702

Station Sampled: Powder room tap

Tax Map #:

Date/Time Sampled: Feb 10, 2005 12:20 pm

Parcel #:

Owner, Telephone No.: Garcia

Sampler: 52265B

Subdivision Name: Cavey Property

Lot Number: Par A

Building Permit No.: B00149546

Well Number: HQ-94-3972

Observation: 2-Piece Cap
 Satisfactory

RESULTS OF ANALYSIS:

PARAMETER	RESULT	METHOD	*MCL/**SMCL	
Nitrate	6.7 mg/L as N	SM 4500D	*10 mg/L as N	Pass
Turbidity	13.7 NTU	EPA 180.1	*10 NTU	HIGH
pH	5.5 Units	EPA 150.1	**6.5-8.5 Units	***
Sand	Negative		Negative	
Iron	0.6 mg/L as Fe		**0.3 mg/L as Fe	
Total Coliform	Absent	SM 9223B	*Absent	SAFE
E. coli (18 Hour Test)	Absent	SM 9223B	*Absent	SAFE

Note: The high turbidity in this water sample is most likely caused by the elevated iron level.

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

Heather R. Beam

Heather R. Beam

*MCL = Maximum Contamination Level
 **SMCL = Secondary Maximum Contamination Level