

C 1 2961 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.

ST/CO USE ONLY
DATE Received
MM 08 DD 12 YY 16

DATE WELL COMPLETED
MM 7 DD 13 YY 16

Depth of Well
22 500 26
(TO NEAREST FOOT)

COUNTY NUMBER
OK
PERMIT NO.
FROM "PERMIT TO DRILL WELL"
HO-15-0250

OWNER Shaw John
WELL SITE ADDRESS 1975 Old Frederick Road TOWN Woodbine md ZIP 21797
SUBDIVISION _____ 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	
Tan/Brown Ground	0	80	
Tan shale	80	90	
Gray/Green Schist	90	500	✓

GROUTING RECORD yes no
WELL HAS BEEN GROUTED (Circle appropriate Box)
TYPE OF GROUTING MATERIAL (Circle one)
CEMENT BENTONITE CLAY
NO. OF BAGS 11 NO. OF POUNDS _____
GALLONS OF WATER 220
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 98 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 PL Nominal diameter top (main) casing (nearest inch!) 6 Total depth of main casing (nearest foot) 100

OTHER CASING (if used)
EACH CASING 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 OT OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0
WELL HYDROFRACTURED yes no

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. MWD 576
 DRILLERS SIGNATURE Rubell
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. JSD 095
 SIGNATURE William Hertz

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

C 2 DEPTH (nearest ft.)

1	2	3	4	5	6
8	9	11	15	17	21
23	24	26	30	32	36
38	39	41	45	47	51

DIAMETER OF SCREEN 6 (NEAREST INCH)
from _____ to _____

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 88

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

C 3 **PUMPING TEST**

HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min.) 1.7

METHOD USED TO MEASURE PUMPING RATE Pump/water bucket

WATER LEVEL (distance from land surface)
 BEFORE PUMPING 47 ft.
 WHEN PUMPING 223 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 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
 - below } 2 (nearest foot)

LATITUDE 39.335343
 LONGITUDE 77.034691
 (DEFAULT COORD. WGS 84)

NOTES:

B 1	30164	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type	STATE PERMIT NUMBER Ho-15-0250 <small>70 fill in this form completely 79</small>
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OWNER INFORMATION

Date Received (APA) 05 16 16

8 MM DD YY 13

15 Last Name Shaw Owner First Name John 34

36 Street or RFD 14975 old Frederick Road 55

57 Town Woodbine md 70 State 21297 Zip 76

LOCATION OF WELL

B 3

8 COUNTY Howard 21

23 SUBDIVISION _____ 42

SECTION 44 46 LOT 48 50

52 NEAREST TOWN Woodbine 71

DRILLER INFORMATION

Driller's Name Randall Alexander 76 License No. MWD 576 81

Firm Name Alexander's well Drilling

Address 125 W-main st. P.O. Box 443
Fairfield PA 17320

Signature Randall alex Date 5/9/16

SOURCES OF DRILLING WATER

B 4

1. well water

2. _____

3. _____

11 STREET ADDRESS 14975 old Frederick Rd. 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 200' 37 DISTANCE FROM ROAD

ENTER FT OR MI 38 39

TAX MAP: 8 BLK: 9 PARCEL 22

WELL INFORMATION

1 2

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

AVERAGE DAILY QUANTITY NEEDED 300
(GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

INDUSTRIAL, COMMERCIAL, DEWATERING

PUBLIC WATER SUPPLY WELL

TEST, OBSERVATION, MONITORING

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard COUNTY NAME COUNTY NO. 13

STATE SIGNATURE _____ INSERT S → 41

DATE ISSUED 5/19/16 CO SIGNATURE Sub. Call: EXP. DATE 5/19/17

43 MM DD YY 48

APPROXIMATE DEPTH OF WELL 300 FEET

24 28

APPROXIMATE DIAMETER OF WELL 6 INCH

NEAREST

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)

37 CABLE REVERSE-ROTary DRIVE-POINT

other _____

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS

THIS WELL WILL DEEPEM AN EXISTING WELL

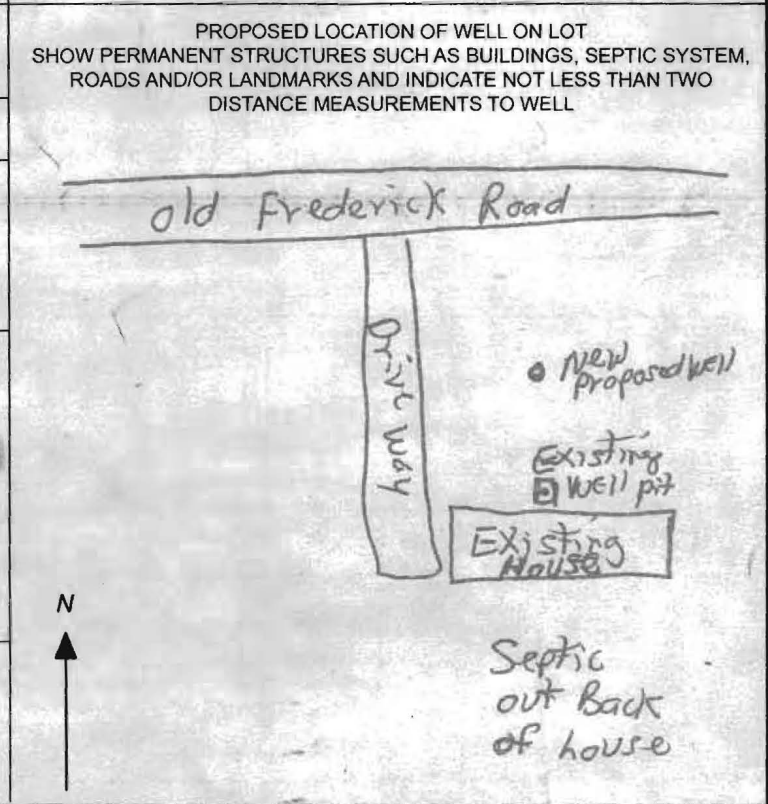
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52

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

APPROX. PERMIT NUMBER _____ G _____

PERMIT No. Ho-15-0250

70 71 72 73 74 75 76 77 78 79



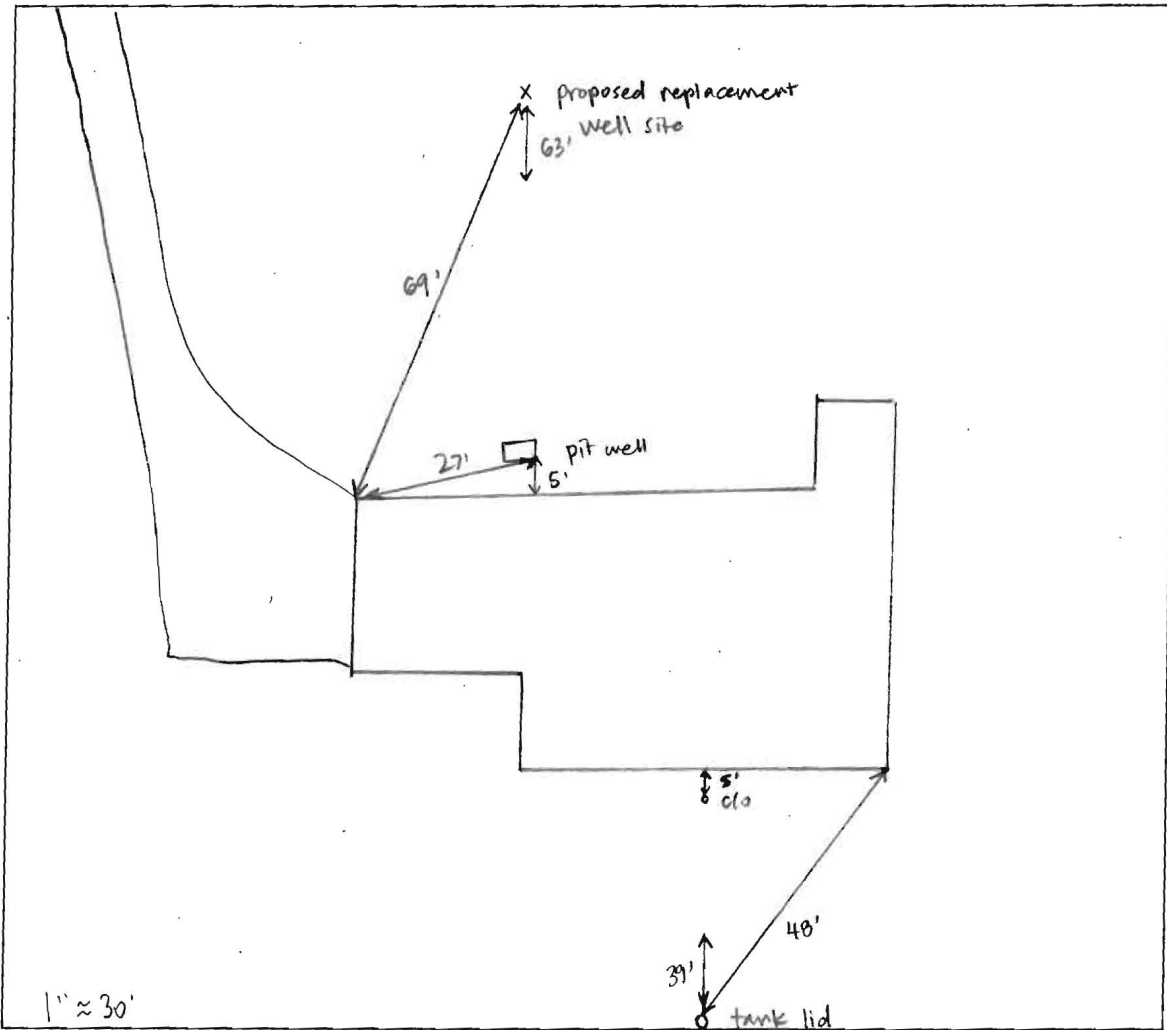
SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED- Existing well must be sealed.

SITE INSPECTION SHEET

OWNER: John Shaw PHONE #: _____
ADDRESS: 14975 Old Frederick Rd. CONTRACTOR: Alexander's Well Drilling
WELL TAG #: _____
SUBDIVISION: _____ LOT: _____ COUNTY #: _____
PROPOSAL: Drill a new well for addition to go on front of house

LOCATION DIAGRAM



COMMENTS: Proposed replacement site is fine. Homeowner should know that septic work will be required with addition. May want to submit floor plans to HCHD prior to starting project.

DATE: 5/18/16 INSPECTOR: Sarah Collins

OK
 8/12/16SC

 WATER WELL HYDROFRACTURE REPORT

WELL TAG NUMBER H0 15 0150 DATE WORK PERFORMED (mm/dd/yyyy) 7/8/16

WELL SITE ADDRESS 14975 old Frederick Road Woodbine md 21797

TAX MAP 8 BLK 9 PARCEL 22 LATITUDE 3 9.335343 LONGITUDE 7 7.034691

CASING DEPTH 100 FT CASING TYPE (circle) ST OR PVC DIAMETER 6

WELL DEPTH 500 FT WATER LEVEL BEFORE FRAC 47 FT YIELD BEFORE FRAC 0.25 GPM

PACKER SETTINGS (circle) SINGLE or MULTIPLE SET DEPTH OF SHALLOWEST PACKER 120 FT

SOURCE OF WATER well

OBSERVATIONS

SET NUMBER	TOP ZONE (FT)	BOTTOM ZONE (FT)	MAX PRESSURE (PSI)	WATER VOLUME USED (GALLONS)
1 <u>120'</u>	<u>120</u>		<u>1100</u>	<u>1300</u>
2				
3				
4				
5				

WATER LEVEL AFTER FRAC 47 FT YIELD AFTER FRAC 1.7 GPM

NOTE: YIELD TEST PROCEDURES CAN BE FOUND UNDER COMAR 26.04.04.26.G.

REGULATIONS FOR HYDROFRACTURING OF WATER WELLS CAN BE FOUND IN COMAR 26.04.04.28. FAILURE TO FOLLOW REGULATORY PROCEDURES WILL CONSTITUTE RECEIVING A WRITTEN VIOLATION WHICH MAY RESULT IN PENALTIES DESCRIBED IN COMAR 26.04.04.38.

This Notice is provided pursuant to §10-624 of the States Government Article of the Maryland code. The Personal Information Requested on this form is intended to be used in processing this form pursuant to COMAR 26.04.04. Failure to provide the information requested may result in the form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment ("MDE") a public agency and subject to the Maryland Public Information Act. This form may be made available on the internet via MDE a website and subject to inspection or copying. In whole or in part, by the public and other government agencies. If not protected by Federal or State law.

DRILLER SIGNATURE William Hertz MWD LIC # 576
550 095

Randall Alexander Well Drilling And Water Pump Service

126 West Main Street
Fairfield Pa. 17320

Fax: 717-642-9864

Field Data Sheet

Well H0-15-0150

Email: alexanderswell.comcast.net

Page 1 of 1
Phone : 717-642-5963

Owner John Show Location of Property 14975 old Fredericks Road
(be specific) Woodbine

Subdivision _____ Section _____ Lot # _____
Well Driller Alexander Well Drilling Depth of Well 500 Ma
2175

Distance of Measuring Point (M.P.) below M.P. _____
Static Water Level (S.W.L.) below M.P. 47
High Rate Pumping -- reservoir drawdown _____
Time Pump Started 8:15 AM
Pumping Rate 12

Well was Hydro Fro
1300 Gal. of water was
pumped out before pump
test was
performed

Total Time 30 min to reach pumping water level 224 feet below M.P.
I. Recovery pump test data - observations to be recorded every 15 minutes.

Time	Water Level below M.P.	Pumping Rate Time to fill <u>gal</u> bkt	Flow Meter Reading (if used)	Calculated Flow (gallons per minute)
845	224	35 sec.		1.7
900	224	35		1.7
915	224	35		1.7
930	224	35		1.7
945	224	35		1.7
1000	224	35		1.7
1015	224	35		1.7
1030	224	35		1.7
1045	224	35		1.7
1100	224	35		1.7
1115	224	35		1.7
1130	224	35		1.7
1145	224	35		1.7
1200	224	35		1.7
1215	224	35		1.7
1230	223	35		1.7
1245	223	35		1.7
100	223	35		1.7
115	223	35		1.7

130. 223 35 1.7
Form BH-40/45 223 35 1.7
200 223 35 1.7
215 223 35 1.7
230 223 35 1.7 1.7 1.7

Randall Alexander Well Drilling And Water Pump Service
 126 West Main Street
 Fairfield Pa. 17320
 Fax: 717-642-9864
Field Data Sheet

Well HO-15-01
 Email: alexande
 comcast.net

Page 1 of 1
 Phone : 717-642-5963

Owner John Show Location of Property 14975 old Frederic
 (be specific) Wood

Subdivision _____ Section _____ Lot # _____

Well Driller Alexander Well Drilling Depth of Well 500

Distance of Measuring Point (M.P.) below M.P. _____

Static Water Level (S.W.L.) below M.P. 47

High Rate Pumping -- reservoir drawdown _____

Time Pump Started 8:15 AM

Pumping Rate 12

Total Time 30 min to reach pumping water level 224

Well was Hyd
 1300 Gal. of water n
 pumped out before
 test was
 Prof

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

Time	Water Level below M.P.	Pumping Rate Time to fill / gal bkt	Flow Meter Reading (if used)	Calculated Flow (gallons per minute)
845	224	35 sec.		1.7
900	224	35		1.7
915	224	35		1.7
930	224	35		1.7
945	224	35		1.7
1000	224	35		1.7
1015	224	35		1.7
1030	224	35		1.7
1045	224	35		1.7
1100	224	35		1.7
1115	224	35		1.7
1130	224	35		1.7
1145	224	35		1.7
1200	224	35		1.7
1215	224	35		1.7
1230	223	35		1.7
1245	223	35		1.7
100	223	35		1.7
115	223	35		1.7

Form EH-40/45
 130 223 35 1.7
 200 223 35 1.7
 215 223 35 1.7
 230 223 35 1.7 1.7

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: T & R Plumbing and Heating Telephone #: 301-498-7776
Address: 3370 Florence Rd.
Woodbine, MD 21797

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Timothy Joseph Rollman License# 7079

***A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.**

Name of Property Owner: Shaw Telephone #: 443-812-3056
Subdivision: _____ Lot #: 22 Well Tag #: HO-15-0250
Site Address: 14975 Old Frederick Rd.
Woodbine, MD 21797

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Myers</u>	Make: <u>1028061</u>	Two piece watertight cap: _____
Model #: <u>P42B0010A2-02</u>	Model#: <u>PA100NL</u>	Screened, vented well cap: _____
Pump Capacity <u>5</u> GPM	Depth: _____ (36" min)	Cap secured to casing: _____
Well Yield: <u>1.7</u> GPM	NSF/WSC approved: _____	Conduit min 18" B.G.: _____
Depth of well encountered at time of pump installation: _____ (feet)		Conduit secured to well cap: _____

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors, Cable guards, or other acceptable method used— Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

Piping to house

Type: _____

PSI: _____ (160 psi min)

Depth of supply line: _____ (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: _____

Length of sleeve(5' minimum from foundation): _____

Sleeve 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: 7/16/16 Date Insp. Approved: 7/20/16 Inspector: SC

Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade	<u>✓</u>
Two piece cap installed and attached to casing securely	<u>✓</u>
Elec. conduit extends at least 18" below grade/attached to cap properly	<u>✓</u>
Safety rope not outside of well cap/casing	<u>✓</u>
Correct well tag attached properly and casing 8" above finished grade	<u>✓</u>
Water supply line sleeved adequately at house connection	<u>✓</u>
Adequate grout observed below pitless adapter	<u>✓</u>

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION
 1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784

 WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENT AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

OK
 8/12/16SC

DATE WELL ABANDONED: 7-26-16 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) _____

* PERMIT NUMBER OF REPLACEMENT WELL _____

HO-15-0150

* PERSON ABANDONING WELL: William Hertz JSD 095
Randall Alexander well drilling

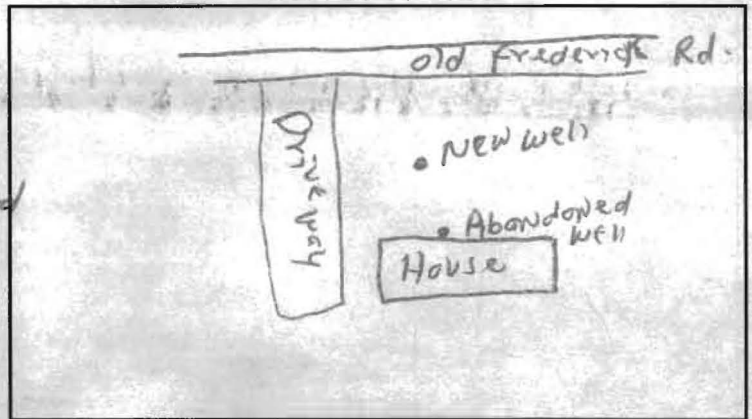
WELL DRILLERS LICENSE NUMBER: 576

CIRCLE: MWD/MSD/MGD

* OWNER'S NAME: John Shaw

SITE LOCATION MAP

* WELL LOCATION:
 COUNTY: Howard
 NEAREST TOWN: Woodbine
 TAX MAP 8 BLOCK 9 PARCEL 22
 SUBDIVISION: _____
 SECTION: _____ LOT: _____
 NEAREST ROAD: 14975 Old Frederick Road



* TYPE OF WELL BEING ABANDONED:

- DRILLED _____ JETTED
- _____ BORED/AUGERED _____ HAND DUG
- _____ OTHER (specify) _____

* USE CODE:

- DOMESTIC _____ MUNICIPAL/PUBLIC
- _____ IRRIGATION _____ INDUSTRIAL
- _____ TEST/OBSERVATION _____ GEOTHERMAL

* TYPE OF CASING:

- STEEL _____ PLASTIC
- _____ CONCRETE _____ OTHER (specify) _____

* SIZE OF CASING: 6 INCHES IN DIAMETER

* DEPTH OF WELL: 75 FEET DEEP

* WAS ANY CASING REMOVED? YES _____ NO
 if yes, length removed, in feet: was in a well pit

* WAS CASING RIPPED OR PERFORATED? YES _____ NO

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
Bentonite Grout	75	5
VOLUME OF MATERIAL USED		
9-50 Lb. Bags Grout 180 Gal. water		

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN Randall Alexander

LICENSE # 576

CIRCLE ONE MWD/MSD/MGD

DATE 7/26/16

MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
1900 Washington Blvd. Baltimore, Maryland 21230 (410) 537-3784

WATER WELL HYDROFRACTURE REPORT

WELL TAG NUMBER H0 15 0150 DATE WORK PERFORMED (mm/dd/yyyy) 7/8/16

WELL SITE ADDRESS 14975 old frederick road woodbine md 21797

TAX MAP 8 BLK 9 PARCEL 22 LATITUDE 39.335343 LONGITUDE 77.034691

CASING DEPTH 100 FT CASING TYPE (circle) ST OR (PVC) DIAMETER 6

WELL DEPTH 500 FT WATER LEVEL BEFORE FRAC 47 FT YIELD BEFORE FRAC 0.25 GPM

PACKER SETTINGS (circle) (SINGLE) or MULTIPLE SET DEPTH OF SHALLOWEST PACKER 120 FT

SOURCE OF WATER well

OBSERVATIONS

SET NUMBER	TOP ZONE (FT)	BOTTOM ZONE (FT)	MAX PRESSURE (PSI)	WATER VOLUME USED (GALLONS)
1	<u>120'</u>	<u>120</u>	<u>1100</u>	<u>1300</u>
2				
3				
4				
5				

WATER LEVEL AFTER FRAC 47 FT YIELD AFTER FRAC 1.7 GPM

NOTE: YIELD TEST PROCEDURES CAN BE FOUND UNDER COMAR 26.04.04.28.G.

REGULATIONS FOR HYDROFRACTURING OF WATER WELLS CAN BE FOUND IN COMAR 26.04.04.28. FAILURE TO FOLLOW REGULATORY PROCEDURES WILL CONSTITUTE RECEIVING A WRITTEN VIOLATION WHICH MAY RESULT IN PENALTIES DESCRIBED IN COMAR 26.04.04.38.

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R. M. [Signature] DRILLER SIGNATURE LIC # MWD 576



Bureau of Environmental Health

8930 Stanford Blvd, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org

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

July 19, 2016

Homeowner
14975 Old Frederick Road
Woodbine, MD 21797

RE: **Replacement Well Sampling**
14975 Old Frederick Road
#HO-15-0250

Dear Homeowner,

According to our records, your replacement well has been connected to the dwelling. We request that you contact the Community Hygiene Program at **(410) 313-1773** to schedule initial water sampling for the above referenced replacement well, as required by the Maryland Well Construction Regulation (*COMAR 26.04.04*). This sampling includes testing for bacteria, nitrates, turbidity, and sand. There is currently **no charge** for the sampling and it is to your benefit to have it tested.

Sampling of the new well should be collected from the primary indoor drinking tap, but if suitable scheduling is not possible, the sample may be taken from an outside tap to complete your sampling obligation. However, the potential for unsuccessful sample results increases when samples are collected from taps exposed to the outside environment. If sampling has already been performed by an outside lab, please help us by forwarding the results of the samples to our office.

The old well must be abandoned and sealed by a well driller as per *COMAR 26.04.04.36*. Documentation should be submitted to the Health Department once this task has been completed.

Feel free to contact me with any questions.

Sincerely,

A handwritten signature in black ink that reads 'Sarah Collins'.

Sarah Collins, L.E.H.S.
Well and Septic Program
SCollins@howardcountymd.gov
410-313-6287

Cc: Community Hygiene Program
File



State of Maryland
 DHMH-Laboratories Administration
 Division of Environmental Chemistry
INORGANICS ANALYTICAL LABORATORY
 1770 Ashland Avenue, Baltimore, Maryland 21205
 Robert Myers, Ph.D., Director



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
 8930 STANFORD BLVD
 COLUMBIA, MD 21045

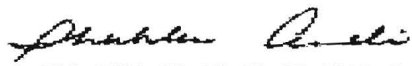
Lab Project NoE17000076 Date Coll. 07/06/2016 Date Received 07/07/2016 Submitted By:Collins

Field ID: HO-15-0250
 Lab No.: E17000076001

<u>Analyte</u>	<u>Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
Chloride	SM 4500-Cl E	59	mg/L	07/11/2016
Total Dissolved Solids	SM 2540C	240	mg/L	07/08/2016

Comments:

Approved by:



Approval date: 07/14/2016

*The following methods are included in our A2LA Scope of Accreditation: EPA150.1, EPA 353.2, EPA 375.2, SM4500F C, SM 4500-CN G & QCM-CN, QCM-CN.

This document contains confidential health information that is privileged, confidential and exempt from disclosure under law. If you have received this information in error, please call (410) 767-6190 and arrange for return or destruction.



State of Maryland
DHMH-Laboratories Administration
Division of Environmental Chemistry
TRACE METALS LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project No: E17000080 Date Coll.: 07/06/2016 Date Received 07/07/2016 Submitted By: Collins

Field ID: HO-15-0250
Lab No.: E17000080001

<u>Method</u>	<u>Element</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
EPA 200.7	Sodium	19.30	ppm	07/13/2016

Comments:

Approved by: *Justin Choi*

Approval date: 07/14/2016

**The following methods are included in our A2LA Scope of Accreditation: EPA 200.7, EPA 200.8, EPA 245.1.

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MD DHMH Laboratories Administration
1770 Ashland Avenue
Baltimore City, MD 21205

Lab No. Date Received



E1700080001

Received: 07/07/2016

Metals HO-15-0250

Do not write above this line

Send Report To: Bert Nixon
Howard Co. Health Dept.
Bureau of Environmental Health

ENVIRONMENTAL METALS SECTION

201 W. Preston Street, Baltimore, Maryland 21201

Robert A. Myers Ph.D. Director

3930 Stanford Blvd

Columbia, MD 21045

LABORATORY ANALYSIS REQUEST

Please Print

PS 4
07-07-16

D

Sample ID No: HO-15-0250 Site Name: Shaw Property County: Howard

Sample Source: 14975 Old Frederick Rd. Woodbine Collector: S. Collins
Street Town or City Name

Date Collected: 7/6/2016 Time Collected: 10:30 a.m. p.m. Phone #: 410-313-6287

Sample Preserved By: Field ESRL WMRL Central Lab

Preservative Used: HNO₃ pH = 2

Sample Type: Drinking Water Landfill Source (Raw Water) Liquid
Data Category: Community Stream Distribution (Treated) Solid
Code: Non-Community Sediment Other _____
 Private

Specify Program: SDWA NPDES CWA RCRA Consumer Products Other _____

Type of Sample Preparation: Total Metals Total Metals TCLP Dissolved Metals
(field preparation required)

Remarks: Sample collected during yield test

✓	Element	Results (ppm)	✓	Element	Results (ppm)
	Antimony (Sb)			Copper (Cu)	
	Arsenic (As)			Lead (Pb)	
	Barium (Ba)			Silver (Ag)	
	Beryllium (Be)			Zinc (Zn)	
	Cadmium (Cd)			Aluminum (Al)	
	Chromium (Cr)			Iron (Fe)	
	Mercury (Hg)			Manganese (Mn)	
	Nickel (Ni)			Calcium (Ca)	
	Selenium (Se)			Magnesium (Mg)	
	Sodium (Na) <u>210</u>			Potassium (K)	
	Thallium (Tl)			Uranium (U)	

Lab Supervisor: _____

Date Reported: ___/___/___

•Phone: (410) 767-6186

•Fax: (410) 333-5122

DHMH 4432 (4/13)

SUBMITTER'S COPY

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION
 1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784

 WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- COUNTY ENVIRONMENT AGENCY (contact MDE, WMA if address needed)
- WELL OWNER
- MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 7-26-16 (month/day/year)

• PERMIT NUMBER OF ABANDONED WELL (if any) _____

• PERMIT NUMBER OF REPLACEMENT WELL _____

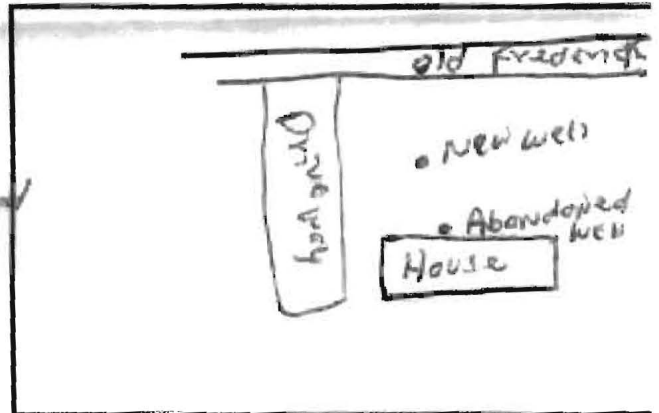
• PERSON ABANDONING WELL: William Hertz 550 095
Randall Alexander Well Drilling

WELL DRILLERS LICENSE NUMBER: 576
 CIRCLE: MWD/M

• OWNER'S NAME: John Shaw

• WELL LOCATION:
 COUNTY: Howard
 NEAREST TOWN: Woodbine
 TAX MAP 8 BLOCK 9 PARCEL 22
 SUBDIVISION: _____
 SECTION: _____ LOT: _____
 NEAREST ROAD: 14975 Old Frederick Road

SITE LOCATION MAP



• TYPE OF WELL BEING ABANDONED:

- DRILLED _____ JETTED
 _____ BORED/AUGERED _____ HAND DUG
 _____ OTHER (specify) _____

• USE CODE:

- DOMESTIC _____ MUNICIPAL/PUBLIC
 _____ IRRIGATION _____ INDUSTRIAL
 _____ TEST/OBSERVATION _____ GEOTHERMAL

• TYPE OF CASING:

- STEEL _____ PLASTIC
 _____ CONCRETE _____ OTHER (specify) _____

• SIZE OF CASING: 6 INCHES IN DIAMETER

• DEPTH OF WELL: 75 FEET DEEP

• WAS ANY CASING REMOVED? YES _____ NO
 If yes, length removed, in feet: _____ was in a well pit

• WAS CASING RIPPED OR DEFORMED? YES _____ NO

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	
Bentonite Grout		75
VOLUME OF MATERIAL USED		
9-50 Lb. Bags G		
180 Gal. water		



WELLX TROL

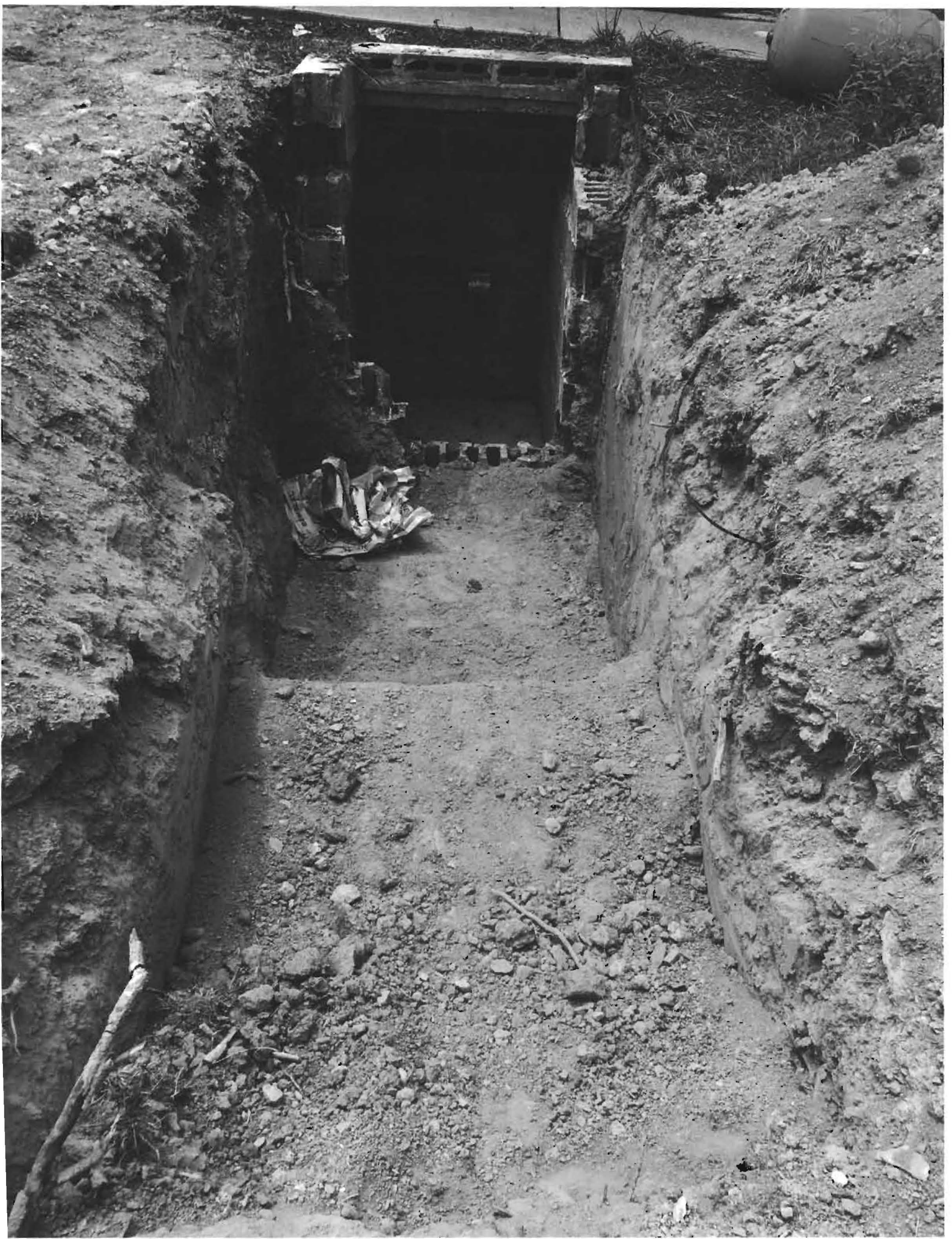
150 psi Tuf-Kote HG

AMTROL



CS

WARNING
CAUTION
INSTALLATION
OPERATION
MAINTENANCE



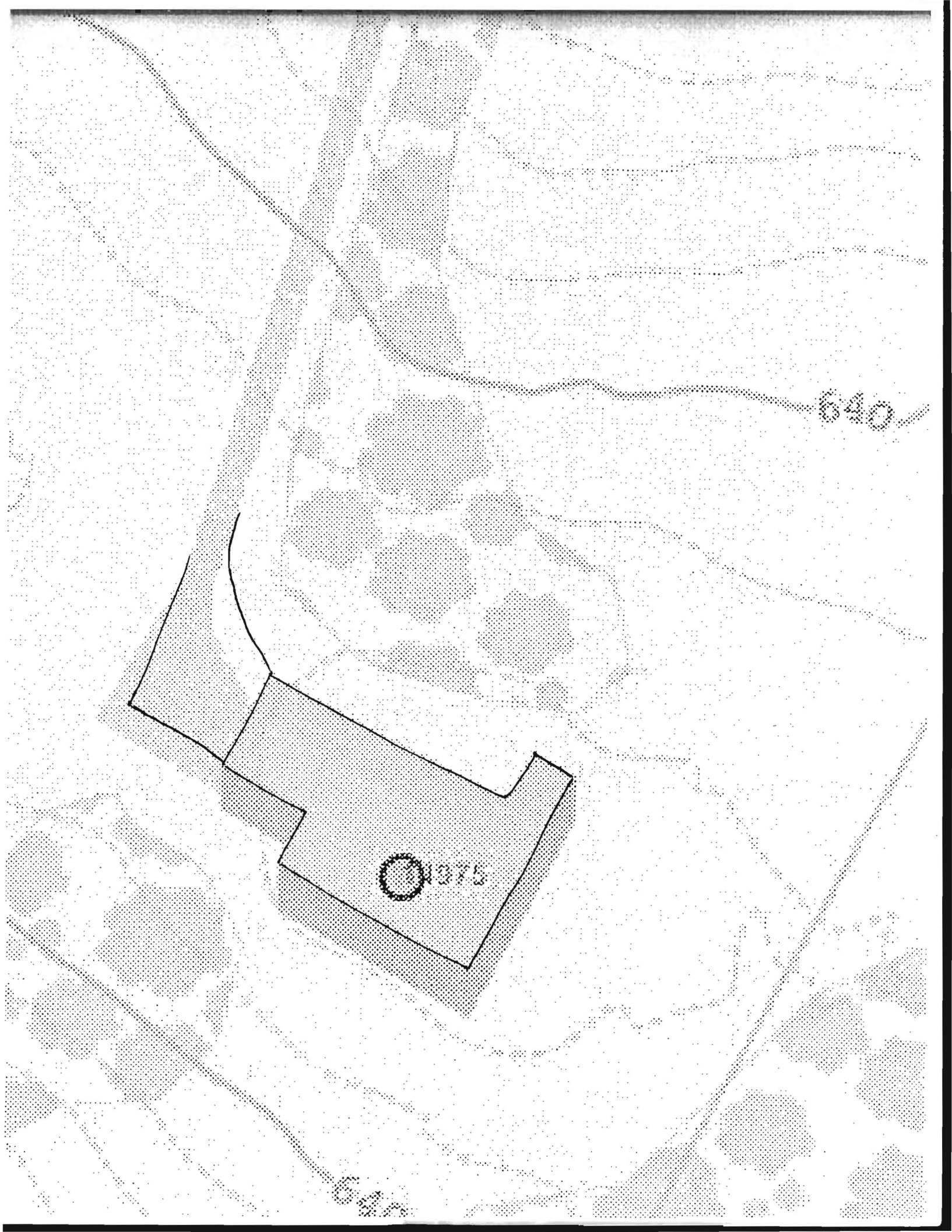
FILE INQUIRY NOTES

DATE	RESULTS OF REVIEW FOR FILE
7/1/16	Spoke with Randy Alexander via phone. They drilled to 500' and hit 13 gpm of water. They'd like to frac today. Only well within 100' is existing pit well to be sealed once water is hit with replacement well. Okay to frac replacement well. (SC)
7/6/16	Alexander's on site for yield test. Used 1100 gal for fracturing - only pumped down 700 gal. then started yield test for 1/2 hr. (Added another 200 gal). Told them to pump down another 200 gal (= 1100 total) before starting yield test. Collected sodium chloride + TDS samples at 10:30 am. (SC)
7/6/16	Bill from Alexander's called - they actually used 1300 gal for frac. They'll pump out 1300 gal today and do yield test another day. (SC)
7/13/16	On site for yield test around noon. Static 47', 224' measuring point, 1 gal in 35 secs. started pump test at 8:45 am. Well grouted earlier - used 9 bags bentonite. (SC)









640

375

640