

10207

DEPARTMENT OF INSPECTIONS,
LICENSES & PERMITS
3430 COURT HOUSE DRIVE
ELLCOTT CITY, MD 21043
PERMITS (410) 313-2455
INSPECTIONS (410) 313-1850

**HOWARD COUNTY
RESIDENTIAL
HEATING-VENTILATION-AIR
CONDITIONING AND
REFRIGERATION PERMIT
APPLICATION**

HVACR PERMIT # **MIS000927**
BUILDING PERMIT #

BUILDING ADDRESS: SUITE/APT:
1755 Henryton Rd.
SUBDIVISION:
CENSUS TRACT: SECTION: AREA:
LOT: TAX MAP: PARCEL:
BLOCK: ZONE:
PROPERTY ID: MAP COORDINATES:
TYPE OF IMPROVEMENTS: USE:

OWNERS NAME: Austin Horman
ADDRESS: 1730 Henryton Rd.
CITY: marriotsville
STATE: MD **ZIP CODE:** 21104
HOME PHONE: **WORK PHONE:**
410-442-1831

	<u>CHECK ONE</u>	<u>HOW MANY</u>
SINGLE FAMILY DWELLING	<input type="checkbox"/>	<u>1</u> ZONES
SINGLE FAMILY TOWNHOUSE	<input type="checkbox"/>	___ ZONES
MULTI-FAMILY / HOTEL/MOTEL	<input type="checkbox"/>	___ ROOMS
ASSISTED LIVING HOMES (16 OR FEWER RESIDENTS)	<input type="checkbox"/>	___ ROOMS

COMPANY NAME: Total Comfort Heating & A/C
LICENSEE NAME: James E. Aaron
ADDRESS: 12009 Margaret Drive
CITY: Hagerstown
STATE: MD **ZIP CODE:** 21742
PHONE: 301-745-3700 **HVACR LICENSE NO:** HVACR 5833-01

- New**
- Heating and Air Conditioning
 - Heating System Only
 - Other Work (Describe):
 - Geo Thermal System
 - Ductless Mini Splits
 - Thru The Wall Systems
- Replacement**
- Heating
 - Air Conditioning
 - Heating and Air Conditioning *Geothermal*
- Additions and Alterations**
- Heating
 - Air Conditioning
 - Heating and Air Conditioning

****Replacement Geo Thermal Systems are not required; However, if a tax credit is being sought a permit is required****

Zones

Permit Fee = # of Zones x \$40 = 40.00
 Technology Fee (10% of Permit Fee) = 4.00
 Plus Application Fee \$50.00
 Total Fees Due = 94.00

Rooms

Permit Fee = # of Rooms x \$80 = _____
 Technology Fee (10% of Permit Fee) = _____
 Plus Application Fee \$50 \$50.00
 Total Fees Due = _____

I HAVE CAREFULLY EXAMINED AND READ THIS APPLICATION AND KNOW IT IS TRUE AND CORRECT. THE WORK DESCRIBED HEREIN WILL BE PERFORMED BY A STATE HVACR LICENSED PERSON(S), AND ALL WORK WILL BE PERFORMED IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS OF HOWARD COUNTY THE STATE OF MARYLAND.

James E. Aaron 9/9/15
SIGNATURE OF LICENSEE DATE
James E. Aaron
PRINT NAME OF LICENSEE
Jim@tchvac.net
Email Address

Validation

Check Number: 5921
 Cash: _____
 Receipt Number: 416857

RECEIVED

SEP 14 2015

LICENSES & PERMITS
DIVISION

Make check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

* Jim W. Wolf LEHS

MIS00927



Load Short Form
Entire House
TOTAL COMFORT HEATING & AC, INC.

Job:
 Date: Sep 09, 2015
 By:

12009 MARGARET DR., HAGERSTOWN, MD 21742 Phone: 301-745-3700 Fax: 301-745-3778 Web: www.tchvac.net License: 5833-01

Project Information

For: AUSTIN HORMAN
 1730 HENRYTON RD., MARRIOTSVILLE, MD 21104

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	18	91	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	52	16	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	44	37		

HEATING EQUIPMENT

Make Climate Master
 Trade TRANQUILITY 27
 Model TTV/TTH/TTD038
 AHRI ref 490266

Efficiency 3.96 COP
 Heating input 8.3 kW
 Heating output 28302 Btuh
 Temperature rise 29 °F
 Actual air flow 894 cfm
 Air flow factor 0.028 cfm/Btuh
 Static pressure 0 in H2O
 Space thermostat

COOLING EQUIPMENT

Make Climate Master
 Trade TRANQUILITY 27
 Cond TTV/TTH/TTD038
 Coil
 AHRI ref 490266

Efficiency 19.54 EER
 Sensible cooling 27572 Btuh
 Latent cooling 11816 Btuh
 Total cooling 39388 Btuh
 Actual air flow 894 cfm
 Air flow factor 0.045 cfm/Btuh
 Static pressure 0 in H2O
 Load sensible heat ratio 0.88

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
1st Floor	1400	18082	15237	498	683
BASEMENT	1400	14401	4719	396	211
Entire House	2800	32483	19956	894	894
Other equip loads		0	0		
Equip. @ 0.96 RSM			19158		
Latent cooling			2829		
TOTALS	2800	32483	21986	894	894

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Project Information

For: AUSTIN HORMAN
1730 HENRYTON RD., MARRIOTSVILLE, MD 21104

Notes:

Design Information

Weather: Andrews AFB, MD, US

Winter Design Conditions

Outside db 18 °F
Inside db 70 °F
Design TD 52 °F

Summer Design Conditions

Outside db 91 °F
Inside db 75 °F
Design TD 16 °F
Daily range M
Relative humidity 50 %
Moisture difference 37 gr/lb

Heating Summary

Structure 29228 Btuh
Ducts 3254 Btuh
Central vent (0 cfm) 0 Btuh
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 32483 Btuh

Sensible Cooling Equipment Load Sizing

Structure 18518 Btuh
Ducts 1438 Btuh
Central vent (0 cfm) 0 Btuh
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.96
Equipment sensible load 19158 Btuh

Infiltration

Method	Simplified	
Construction quality	Average	
Fireplaces	0	
	Heating	Cooling
Area (ft ²)	2800	2800
Volume (ft ³)	14700	14700
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	78	39

Latent Cooling Equipment Load Sizing

Structure 1979 Btuh
Ducts 849 Btuh
Central vent (0 cfm) 0 Btuh
Equipment latent load 2829 Btuh
Equipment total load 21986 Btuh
Req. total capacity at 0.70 SHR 2.3 ton

Heating Equipment Summary

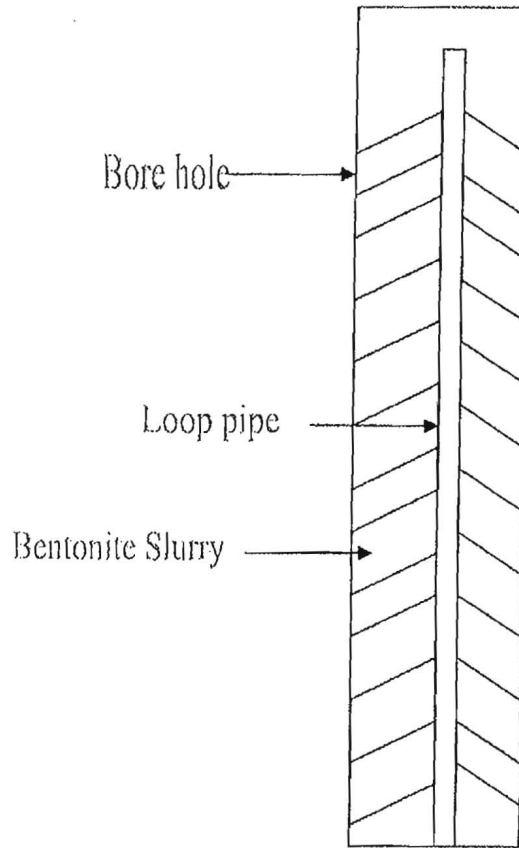
Make	Climate Master	
Trade	TRANQUILITY 27	
Model	TTV/TTH/TTD038	
AHRI ref	490266	
Efficiency	3.96 COP	
Heating input	8.3 kW	
Heating output	28302 Btuh	
Temperature rise	29 °F	
Actual air flow	894 cfm	
Air flow factor	0.028 cfm/Btuh	
Static pressure	0 in H2O	
Space thermostat		

Cooling Equipment Summary

Make	Climate Master	
Trade	TRANQUILITY 27	
Cond	TTV/TTH/TTD038	
Coil		
AHRI ref	490266	
Efficiency	19.54 EER	
Sensible cooling	27572 Btuh	
Latent cooling	11816 Btuh	
Total cooling	39388 Btuh	
Actual air flow	894 cfm	
Air flow factor	0.045 cfm/Btuh	
Static pressure	0 in H2O	
Load sensible heat ratio	0.88	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

GEOHERMAL WELL DESIGN



Owner Austin Huron

Location 1755 Kensington Road

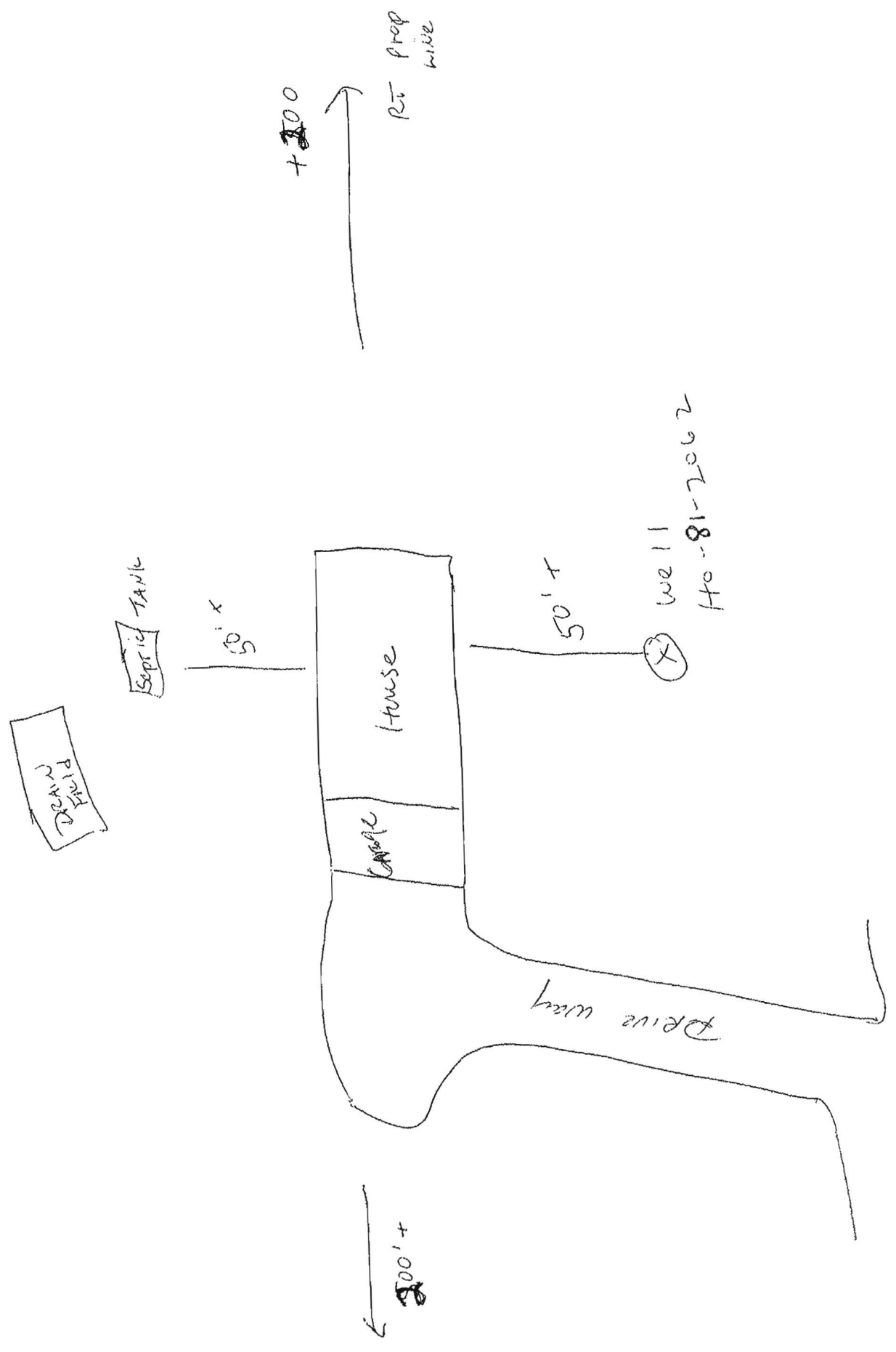
Number of wells 1

Depth 450 Loop Size 1 1/4

Grout Material-----Bentonite Slurry from bottom to G.L.

site plan to accompany HVAC permit # M15 000727

FORMAN PROPERTY 1755 HUNRYTON ROAD 72 ACRE PARCEL



C 1 26093

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED 9-29-15

Depth of Well 450 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-81-2062

OWNER HORMAN, AUSTIN WELL SITE ADDRESS 1755 HENRYTON RD TOWN MARIOTTVILLE

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 (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Includes handwritten notes: 'Grey mica 190 450', 'Deepened from 190 - 450', 'Installed loop and filled in with Bentonite'.

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N. TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC. NO. OF BAGS NO. OF POUNDS. GALLONS OF WATER. DEPTH OF GROUT SEAL (to nearest foot).

CASING RECORD

OTHER CASING (if used) diameter inch depth (feet) from to. MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot).

SCREEN RECORD

screen type or open hole (insert appropriate code below) ST STEEL BR BRASS PL PLASTIC HO OPEN HOLE OT OTHER. DEPTH (nearest ft.)

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9. PUMPING RATE (gal. per min.) 11 15. METHOD USED TO MEASURE PUMPING RATE. WATER LEVEL (distance from land surface) BEFORE PUMPING 17 20 ft. WHEN PUMPING 22 25 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,ST,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) 49 above LAND SURFACE 49 below (nearest foot) 50 51.

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES Y NO 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.: MW040 DRILLERS SIGNATURE: George F. Estabrook (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO.: WRO064

Table with columns: E A C H S R E E N, 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. Includes SLOT SIZE 1 2 3 and DIAMETER OF SCREEN (NEAREST INCH) 56 60.

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.

LATITUDE 39.322365 LONGITUDE 76.925717 (DEFAULT COORD. WGS 84) NOTES:

Wolf, Kevin

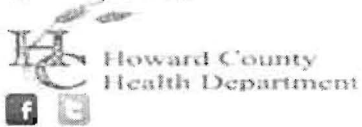
From: Wolf, Kevin
Sent: Wednesday, September 30, 2015 10:02 AM
To: 'jim@tchvac.net'
Subject: 1730 Henryton Road HVAC M15000927

James,

I have this permit up for review in our office. I do not see a well permit issuance for this address. Is this permit for horizontal loop? Replacement of the HVAC unit? Please confirm.

Thanks,

Kevin M. Wolf, LEHS
Groundwater Mgmt. Sec. Supervisor
Well & Septic Program
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, MD 21045
(o) 410-313-2645
(f) 410-313-2648



kwolf@howardcountymd.gov

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C 1 26093

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER HORMAN, AUSTIN WELL SITE ADDRESS 1755 HENRYTON TOWN MARRIOTTVILLE

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

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC

CASING RECORD casing types insert appropriate code below MAIN CASING TYPE

SCREEN RECORD screen type or open hole (insert appropriate code below) SCREEN RECORD

PUMPING TEST HOURS PUMPED (nearest hour) PUMPING RATE (gal. per min.) METHOD USED TO MEASURE PUMPING RATE

NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED

DEPTH (nearest ft.) A C H S R E E N SLOT SIZE 1 2 3 DIAMETER OF SCREEN

PUMP INSTALLED DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29

CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

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 040 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 WR0064

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

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

TELESCOPE CASING LOG INDICATOR OTHER DATA