	ORIGINAL	
AQUARION WATER COMPANY OF NEW HA	WRSHIP Ease No. DW 12-024	
	Exhibit No. <u>20</u>	
	Witness	
Aquarion Water Company's Response to Record I	equest NOT REMOVE FROM FILE	

Date of Response: May 31, 2013

Witness: Carl McMorran

REQUEST: Reference Prefiled Direct Testimony of Carl McMorran, page 62 of 171 lines 1 -5. Please state the volume of water identified with the seventeen (17) leaks found

by the DES-hired contracter in 2011.

Date Request Received: May 23, 2013

Record Request No. 1

RESPONSE: The estimated leakage attributable to the seventeen leaks as determined by Health Consultants Incorporated was, in the aggregate, 149 gallons per minute or 214,560 gallons per day. Aquarion provided a copy of Health Consultants Incorporated's final report to the New Hampshire Department of Environmental Services as Attachment C to its response to data request Staff 1-31 in this matter. The relevant excerpt of that report is attached hereto as Attachment A. Record Request # 1 Attachment A Aquarion Water Company of NH DW 12-085 Page 1 of 1 Staff 1-31 Attachment C Aquarion Water Company DW 12-085

344-AQ-23087-025

**REFERENCE NUMBER** 

TOTAL DAYS 26

HEATH.
ICONSULTANTS

Summary of

## WATER LEAK CONTROL SURVEY

FOR

Water Use & Conservation

HAMPTON, NH

CITY AND STATE

AQUARION WATER CO.

DISTRICT OR DIVISION

DONALD KELLER

DATE STARTED 03/30/2011

Conducted by our Consultant(s)

DATE COMPLETED 05/13/2011

CLASSIFICATION		Including Final Report & Maj ESTIMATED LEAKAGE		
	NUMBER	K GPM	K_GPD K_GP	YAF/Y
1	3	70	100,800	36,792,000
2	7	63	90,720	33,112,800
3	7	16	23,040	8,409,600
TOTALS	17	149	214,560	78,314,400

GPM = Gallons/Minute

GPD = Gallons/Day

17

GPY ≈ Gallons/Year

AF/Y = Acre Free/Year

SOURCE OF LEAKAGE	NUMBER	GPM	% OF TOTAL NO.	% OF TOTAL EST. GPM
MAINS	4	80	23	54
SERVICES	8	53	47	35
VALVES	1	10	6	7
HYDRANTS	4	6	24	4
TOTALS	17	149	100	100

## TYPE OF SURVEY PERFORMED Comprehensive

MILES OF MAIN INSPECTED 123.06

NUMBER OF SERVICES INSPECTED

(If applicable)

NUMBER OF LEAK INDICATIONS \_\_\_\_

Leak Indication Classification

Leak indication classification is not an exact science despite the use of modern instruments as well as training and experience by the Consultant, it is impossible to determine the exact condition of underground piping without actually exposing it. In view of this limitation, our classification (including estimated volume loss) is intended as an aid in scheduling repairs based upon information available, the Consultant's judgment, and site conditions at the time the report is prepared. Variable factors beyond our control may alter this classification at any time. Once the leak is exposed for repair, the Utility may wish to revise the volume loss estimate in order to establish a more accurate estimate of actual water loss.

Grade 1 (C)	15+	to		GPM
Grade 2 (B)	5	to_	15	GPM
Grade 3 (A)	< 5	_to_		GPM

## SPECIAL CASES

Contact Heath Consultants Incorporated for further information regarding any Special Cases such as emergency assistance, inspecting river/canal crossings, analysis/audit of in-house leakage programs, third party verification, hands-on training, etc.

Our Consultants will be available on a 24 hour notice to assist you.