

Exhibit No.:
Issue: *Need for distribution system
rehabilitation*
Witness: *David A. Spratt*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Direct Testimony*
Case No.: *WR-2017-0259*
Date Testimony Prepared: *October 13, 2017*

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

WATER AND SEWER DEPARTMENT

DIRECT TESTIMONY

OF

DAVID A. SPRATT

INDIAN HILLS UTILITY OPERATING COMPANY, INC.

CASE NO. WR-2017-0259

Jefferson City, Missouri
October 2017

1 **DIRECT TESTIMONY**

2 **OF**

3 **DAVID A. SPRATT**

4 **INDIAN HILLS UTILITY OPERATING COMPANY, INC.**

5 **CASE NO. WR-2017-0259**

6 Q. Please state your name and business address.

7 A. David A. Spratt, 200 Madison Street, Suite 500, Jefferson City, MO 65101.

8 Q. By whom are you employed and in what capacity?

9 A. I am a Utility Operations Technical Specialist II in the Water and Sewer
10 Department (“Staff”) for the Missouri Public Service Commission (“Commission”).

11 Q. Please describe your educational background, work experience, training, and any
12 cases in which you have previously filed testimony before this Commission.

13 A. My credentials are attached to this direct testimony as Schedule DAS-d1.

14 Q. What is the purpose of your direct testimony?

15 A. The purpose of my direct testimony is to describe the ongoing need for water
16 distribution system rehabilitation at Indian Hills Utility Operating Company, Inc. (“Indian Hills”
17 or “Company”) and Staff’s position on service connection replacements versus repairs.

18 Q. Please describe the system improvements Indian Hills has made since acquiring
19 the system?

20 A. The Company has made a variety of improvements, some to comply with the
21 Missouri Department of Natural Resources (DNR) guidelines. The Company replaced the drop
22 pipe and the 25 horsepower (hp) well pump located at well #1. A new 263,000 gallon storage
23 tank was installed to replace the old 20,000 gallon storage tank, which did not meet DNR

1 “Minimum Design Standards for Missouri Community Water Systems” (“design guide”
2 Publication 2489) 1.1.2 (d) (3) (ii) located on page 3 of the publication. The previous tank had
3 outlived its useful life and did not provide sufficient storage. The previous storage tank was
4 buried on three sides which did not meet design guide 7.0.3(d) located on page 168 of the
5 publication. The Company drilled a second well to comply with DNR design guide requirement
6 3.2.1.2 located on page 28 of the publication, which states that a water system serving more than
7 500 people “shall have more than one well”. The Company constructed well #3 very similarly to
8 well #1. The well house at well #1 was in great need of repair and was not of sufficient size
9 for the motors and monitoring equipment that have been installed. Each well house was built
10 with a separate room to house the chlorine. Liquid chlorine in drums has to be vented and that
11 gas is highly corrosive. Keeping the chlorine contained can extend the life of the metal inside
12 the well houses.

13 Q. Please explain your familiarity with the water system at Indian Hills.

14 A. I have been performing inspections on the water system and responding to
15 customer complaints involving water leaks for approximately five years.

16 Q. Does this system have a problem with water leaks?

17 A. Yes. Since 2011, there have been at least 40 documented leak complaints called
18 in to Staff that have been recorded in EFIS. Some of the leaks are in the water mains but others
19 are in the service connections.

20 Q. What is a service connection?

21 A. The service connection is section of the pipe connecting the water main to the
22 water meter.

1 Q. What are the issues with leaks at the service connection?

2 A. The water distribution system is approximately 50 years old. Due to lack of
3 capital improvements on the system, many of the mains, service lines, and service connections
4 are original to the system. Many of the current leaks that the Company has observed show signs
5 of at least one previous repair. The Company and Staff's observations of these leaks indicate
6 that the previous owners' repairs were substandard and made with substandard material and are
7 causing further issues. The Company has presented Staff with a report indicating the number of
8 leaks repaired and service connections replaced since taking over the utility. That report has
9 been attached to this testimony as Schedule DAS-d2.

10 Q. What is the Company's current method for reducing water leaks within the
11 water system?

12 A. The Company believes it is better for system integrity to replace service
13 connections as leaks are discovered rather than repair the service connections.

14 Q. Does Staff agree that replacing service connections is a better alternative than
15 service line repairs?

16 A. Yes.

17 Q. Please explain why Staff agrees with this approach.

18 A. As mentioned above, the service connections installed and/or repaired by previous
19 owners were made with substandard material. Thus the previously repaired connections are
20 unable to withstand the increase in water pressure provided by the Indian Hills due to overall
21 system improvements, discussed above, made by the Company to comply with DNR guidelines.
22 Photos are attached to my direct testimony as Schedule DAS-d3 showing where multiple repairs

Direct Testimony of
David A. Spratt

1 have been made to service connections. It is Staff's opinion that it would be less expensive to
2 replace a service connection while the ditch is open and the backhoe is on site than to dig in the
3 same spot numerous times and make minor repairs. The Company has suggested replacing all of
4 the service connections over a period of time to be able to schedule the work, annualize the cost,
5 and reduce the number of leaks.

6 Q. Does this conclude your direct testimony?

7 A. Yes, it does.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

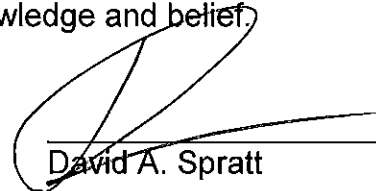
In The Matter of The Rate Increase Request Of)
Indian Hills Utility Operating Company, Inc.) Case No. WR-2017-0259

AFFIDAVIT OF DAVID A. SPRATT

State of Missouri)
) ss
County of Cole)

COMES NOW David A. Spratt, and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached *Direct Testimony*; and that the same is true and correct according to his best knowledge and belief.


Further the Affiant sayeth not.



David A. Spratt

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of October, 2017.



NOTARY PUBLIC

DIANNA L. VAUGHT Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: June 28, 2019 Commission Number: 15207377

David A. Spratt

I am a Utility Operations Technical Specialist II in the Water & Sewer Department, in the Commission Staff of the Missouri Public Service Commission. I have been employed by the Missouri Public Service Commission since April of 2008. My primary duties include, but are not limited to, utility operation inspection of water and sewer facilities that are regulated by the PSC.

Educational background and Work Experience

I earned a Bachelor of Arts in History and a minor Political Science in 1995 from Lincoln University in Jefferson City, MO. I also earned a Master of Public Administration degree from the University of Missouri – Columbia in 1999. During my time with the PSC I have received the following operator certificates from the Department of Natural Resources: D level drinking water treatment certificate, D level wastewater certificate, and DS-I water distribution. I have inspected numerous water and wastewater treatment facilities. I have also worked on a variety of complaint cases. I testified as an expert witness in case WC-2011-0409.

TOTAL LEAK REPAIR AND REPLACEMENT LOG

Leak No.	Address	Notes
1	1648 Lakeshore	
2	816 Lakeshore	
3	2239 Lakeshore	
4	2272 Lakeshore	
5	2014 Lakeshore	
6	1658 Lakeshore	
7	474 Lakeshore	
8	1746 Lakeshore	
9	593 Lakeside	
10	1920 Lakeshore	
11	Lot 960 on Whitefawn	
12	2270 Lakeshore	
13	1936 Lakeshore	
14	737 Squaw	
15	826 Lakeshore	
16	1089 Whitehawk	
17	1744 Lakeshore	
18	1524 Lakeshore	
19	1618 Lakeshore	
20	1339 Lakeshore	
21	2136 Lonewolf	
22	2446 Sanchez	
23	858 Lakeshore	
24	1306 Lakeshore	
25	327 Oak	
26	1800 Lakeshore Drive	
27	1340 Shawnee	
28	2250 Lakeshore	
29	141 Hickory	
30	1668 Lakeshore	
31	721 Squaw	
32	1837 lakeshore	
33	2014 Lakeshore Drive	
34	580 Lakeside	
35	122 Hickory	
36	1683 Lakeshore	
37	1868 Lakeshore	
38	2210 Lakeshore	
39	1156 Pawnee	
40	2213 Lakeshore	
41	551 Lakeside	
42	2142 Whitefawn	
43	1896 Lakeshore	
44	1459 Sequoia	
45	1504 Lakeshore	
46	1652 Lakeshore	
47	1378 Osage	7/11 & 7/19
48	1857 Lakeshore	
49	1740 Lakeshore	

TOTAL LEAK REPAIR AND REPLACEMENT LOG

50 533 Lakeside
51 632 Lakeshore
52 923 Lakeshore
53 1857 Lakeshore
54 913 Lakeshore
55 475 Lakeshore
56 1976 Lakeshore
57 1996 Lakeshore
58 811 Lakeshore
59 649 Lakeshore
60 715 Lakeshore
61 1954 Lakeshore
62 2274 Lakeshore
63 1712 Navaho
64 875 Lakeshore
65 595 Lakeside
66 1844 Lakeshore
67 2417 Sanchez
68 555 Lakeside
69 2113 Lone wolf
70 1854 Lakeshore
71 1868 Lakeshore
72 2116 White fawn
73 2417 Sanchez
74 1958 Lakeshore
75 251 Oak
76 308 Oak
77 1837 Lakeshore
78 1252 lakeshore leak in meter pit
79 453 Lakeshore
80 1930 Lakeshore
81 1925 Lakehsore
82 1344 Shawnee
83 2269 Lakeshore Leak in front of property
84 2665 Seminole leak in the road
85 1996 Lakeshore
86 2206 Lakeshore
87 2274 Lakeshore
88 2508 Alleghany
89 8 Indian Hills
90 1279 Lakeshore
91 1922 Lakeshore
92 1958 Lakeshore
93 863 Lakeshore
94 843 Lakeshore
95 826 Lakeshore
96 1788 Lakeshore
97 700 Lakeshore
98 875 Lakeshore

TOTAL LEAK REPAIR AND REPLACEMENT LOG

99 708 Squaw	leak in ditch
100 2224 lakeshore	
101 1270 Lakehsore	
102 2221 Lakeshore	
103 128 Hickory	
104 2417 Sanchez	
105 1512 Lakeshore	
106 2219 Lakeshore	leak in the road
107 2213 Lakeshore	Leak in the pit
108 738 Squaw	
109 879 Lakeshore	
110 1870 Lakeshore	
111 817 Cochise	leak in meter
112 2222 Lakeshore	
113 914 Lakeshore	
114 1956 Lakeshore	
115 704 Squaw	
116 1608 Sequoya	
117 875 Lakeshore	
118 1516 Lakeshore	leak in meter pit
119 599 Lakeside	leak out by road
120 1786 Lakeshore	
121 821 Cochise	
122 66 Indian Hills	
123 514 Lakeside	leak in meter pit
124 879 Lakeshore	
125 833 Cochise	leak in street
126 1610 Lakeshore	
127 1976 Lakeshore	
128 1638 Lakeshore	
129 2250 Lakeshore	
130 1212 Lakeshore	
131 592 Lakeside	Leak in meter pit
132 1545 Lakeshore	leak between neighbors
133 765 Squaw	this was a home owner leak and we moved his pit at no cost to him because he didn't like his service under his driveway. Older gentlemen that we were helping out.
134 721 Squaw	
135 1570 Lakeshore	
136 1980 Lakeshore	
137 474 Lakeshore	
138 539 Lakeside	
139 715 Squaw	
140 1947 Lakeshore	
141 1864 Lakeshore	
142 1856 Lakeshore	
143 1282 Lakeshore	
144 1058 Whitehawk	
145 851 lakeshore	

TOTAL LEAK REPAIR AND REPLACEMENT LOG

146 1073 Whitehawk
 147 1947 Lakeshore
 148 514 Lakeside
 149 1578 Lakeshore
 150 1856 Lakeshore
 151 2509 Alleghany
 152 1618 Lakeshore
 153 1659 Whitehawk
 154 2034 Big Bear water seeping from around meter pit
 155 721 Squaw leak in the meter pit. Called in by Robert Petry on 1/21, 1/23, 1/27
 156 366 Walnut
 157 753 Squaw Called in as 760 Squaw with leak by the driveway
 158 2006 Lakeshore
 159 1056 Whitehawk called in as 1070 Whitehawk
 160 117 Hickory
 161 713 Squaw
 162 2006 Lakeshore
 163 593 Lakeside leak going in their yard. Called in by Dolan on 2/4/17, 2/9/17 and Rita May on 2/7/17, 2/8/17
 164 1638 Lakeshore Leak coming from across the road to his front house.
 165 1743 Lakeshore leak between meter and road
 166 1342 Shawnee
 167 1683 Lakeshore leak for the fifth time
 168 756 Squaw Called in by Scott Denney 2/10 and Colin Frost on 2/13/17 and Mark Avery on 2/27/17
 169 1067 White Hawk Leak called in by Josh Rawson as a busted water main.
 170 2269 Lakeshore by Don Kalista as leak in front of house on 2/28, 3/1, 3/2 and Kelly Christenson on 3-2-17
 171 1679 Lakeshore water leak called in by Bob Grady
 172 853 Lakeshore
 173 1342 Shawnee Tom Bond and he might have a water leak on 3/10/17 and 3/15 that no one has come by
 174 593 Lakeshore called in by Dolan at 597 on 2/23/17, 2/28/17, 3/3/17 as leak from up the road and by Rita May on 2/27/17 and Christine Rinck on 3-9-17 four times
 175 1628 Sequoya Robert Gray and neighbor has a leak and leaking into yard
 176 851 Lakeshore Al Brandl on 851 Lakeshore
 177 1866 Lakeshore Bob Voss and leak in his front yard. Yard feels spongy
 178 580 Lakeside Carol Kumbera on 3/29 to report leak and 4/5/17 and has been calling for a weak now and 4/11/17
 179 1644 Sequoya Robert Gray and there are two bad leaks
 180 1169 Pawnee Ronald Mueller and water is running and needs to turn off 4/13/17 twice
 181 1322 Lakeshore William lee and leak from the street
 182 1244 Lakeshore Frank K and water leak in his yard 4/20 and 4/24
 183 1370 Lakeshore
 184 1320 Lakeshore Michael King and leak is funning down driveway from street on 4/27 & 5/16
 185 1201 Lakeshore
 186 1378 Osage Don Eichberger and leak is coming from across the road
 187 1322 Lakeshore William Lee and leak from across the road
 188 763 Squaw Jeanette Pitman with water leak bubbling up from the street and Karen Bell on 4-5-17 & William Bell on 4/26

TOTAL LEAK REPAIR AND REPLACEMENT LOG

189 704 Squaw	Cliff with two leaks
190 760 Squaw	Scott Denney leak in front of his house on the road
191 1676 Lakeshore	Marshall Harrell and leak in the street
192 2634 Seminole Road	Terry L and leak from area around pit
193 1 Indian Hills	Leak in ditch along highway - Could not find a leak. Vac truck and seemed to dry up. Will let sit for a while
194 1743 Lakeshore	leak between meter and road
195 1800 Lakeshore	Melanie Spiff on 5/30 & 6/1/17 leak around meter
196 2209 Lakeshore	
197 2206 Lakeshore	Eugene Seemes - leak at vacant lot
198 209 Hickory	Matthew Harris - leak at meter
199 2658 Seminole	
200 853 Cochise	Greg Dart - leak in meter 5/30 & 6/6 & 6/12
201 1996 Lakeshore	leak in street
202 644 Lakeshore	
203 2014 Lakeshore	Scott Rockafellow on 5/31 leak in street and Gary Bood on 6/2/17
204 2809 Highway DD	Leak on his property
205 547 Lakeside	leak around meter
206 1980 Lakeshore	leak in road
207 721 Squaw	Robert Petry and leak between meter and street & 6/12 & 6/20
208 549 Lakeside	Weingart and leak by mailbox
209 1739 Lakeshore	Ron R and leak by the water meter
210 1878 Lakeshore	Christine Mahon (1875) leak in front of 1878 & 6/12
211 1778 Lakeshore	Virginia Hoeken - leak up by the road
212 665 Lakeshore	John Lowry - leak around 665 area
213 859 Lakeside	David Patton - leak in street
214 1726 Lakeshore	Kenneth McClellan - leak in the street
215 1996 Lakeshore	David May - leak in called 2 weeks ago and waiting on service
216 2167 Lonewolf	Robert Bommel - water coming down ditch from meter
217 2645 Seminol	Christ Ford - leak out at meter 6/19 & 6/27
218 1644 Sequoya	Wanda Reeves - leak above the house 7/7 & 7/10 & Michelle Cason - 7/7
219 1868 Lakeshore	Bob Schwartz - leak in front of house
220 1397 Lakeshore	Mike Jackson - leak in front of house
221 1600 block lakeshore	Mike Jackson - leak at 1600 block 7/8 & Robert Gray on 7/10
222 1164 Pawnee	operator found - fix leak at meter pit
223 2200 Sanchez	Jody - leak has turned to fountain 7/10 & 7/12 but she called it 2440 Sanchez
224 715 Squaw	Jerry Harris - leak in street 7/10 & 7/17 & Jim Rothberg leak in lateral 7/16 & Lois Henderson on 7/17
225 2509 Alleghany	Operator found - replace leaking service with new meter
226 857 Cochise	Susan Holt - leak is bubbling 7/12 & 7/15 Replace service
227 1348 Shawnee	Eldon Jones - leak at meter
228 1 Indian Hills	John Baumann - minor leak in Highway DD ditch.
229 2167 Lonewolf	Robert Bommel - Water leak
230 1380 Osage Road	Don Eichberger - leaking for several days and previous hasn't fixed problem
231 777 Squaw Road	Tina Kumbera - meter is leaking.
232 8 Indian Hills	Contractor found - replace water service
233 470 Lakeshore	Contractor found - replace water service
234 580 Lakeside	Carol Kumbera - leak on service line 7/24 & Debbie Dolan on 7/28
235 875 Lakeshore	Mary Beth Huffmann - leak on service line out of street

TOTAL LEAK REPAIR AND REPLACEMENT LOG

236 1382 Osage Sharon Haydon - leak right by meter
 237 630 Lakeshore Amos Pogue - Leak in this area
 238 2456 Sanchez replaced service

#	Address	Total Service Line Replacement List
1		2229 Lakeshore
2		2215 Lakeshore
3		2008 Lakeside
4		1926 Lakeside
5		1908 Lakeshore
6		1874 Lakeshore
7		1872 Lakeshore
8		1862 Lakeshore
9		1860 Lakeshore
10		1862 Lakeshore
11		1860 Lakeshore
12		1862 Lakeshore
13		1860 Lakeshore
14		1795 Lakeshore
15		1752 Lakeshore
16		1732 Lakeshore
17		1730 Lakeshore
18		1727 Lakeshore
19		1724 Lakeshore
20		1723 Lakeshore
21		1716 Lakeshore
22		1715 Lakeshore
23		1646 Lakeshore
24		1631 Lakeshore
25		1560 Lakeshore
26		1533 Lakeshore
27		1509 Lakeshore
28		1363 Lakeshore
29		1236 Lakeshore
30		917 Lakeshore
31		862 Lakeshore
32		860 Lakeshore
33		847 Lakeshore
34		804 Lakeshore
35		636 Lakeshore
36		632 Lakeshore
37		607 Lakeshore
38		585 Lakeshore
39		583 Lakeshore
40		583 Lakeshore
41		575 Lakeshore
42		525 Lakeshore
43		502 Lakeshore
44		428 Lakeshore

IH . Battle Water Main
Furny GIVE ON SADDLE SERVICE CONNECTIONS



IH
Typical
Pride
Service
Repair



I4
TYPICAL
PRISM
SERVICE
REPAIR



IH - TYPICAL PRIOR SERVICE REMAIN

