

November 9, 2021

VIA ELECTRONIC MAIL

Luly E. Massaro, Division Clerk
Rhode Island Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket D-21-09 – Petition of PPL Corporation, PPL Rhode Island Holdings, LLC, National Grid USA, and The Narragansett Electric Company for Authority to Transfer Ownership of The Narragansett Electric Company to PPL Rhode Island Holdings, LLC and Related Approvals
Responses to Division Advocacy Section Data Requests – Set 1

Dear Ms. Massaro:

On behalf of National Grid USA and The Narragansett Electric Company (together, “National Grid”), enclosed is National Grid’s supplemental response to data request Division 1-36 of the first set of data requests issued by the Rhode Island Division of Public Utilities and Carriers (“Division”) Advocacy Section in the above-referenced proceeding.¹

Thank you for your attention to this matter. If you have any questions, please contact me at 401-784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

¹ Although this is a Division filing, consistent with Public Utilities Commission’s filing requirements during the COVID-19 emergency period, National Grid is submitting an electronic version of this filing. National Grid will provide the Division Clerk with five hard copies within 24 hours and, if needed, additional hard copies of the enclosures upon request.

Luly E. Massaro, Division Clerk
Docket D-21-09 – Responses to Advocacy Section Data Requests Set 1
November 9, 2021
Page 2 of 2

Enclosures

cc: Docket D-21-09 Service List (electronic only)
John Bell, Division
Leo Wold, Esq.
Christy Hetherington, Esq.
Scott H. Strauss, Esq. (electronic only)
Latif M. Nurani, Esq. (electronic only)
Amber L. Martin Stone, Esq. (electronic only)
Anree G. Little, Esq. (electronic only)

National Grid USA and The Narragansett Electric Company
Division 1-36 Supplemental

Request:

Please provide all Documents, including all reports, assessments, and analyses, in the possession of or prepared by or for PPL or PPL RI (including those provided by National Grid) related to the condition of the Narragansett gas and electric systems.

Original Response:

On June 15, 2021, counsel for PPL Corporation, PPL Rhode Island Holdings, LLC, National Grid USA, and The Narragansett Electric Company ("Narragansett" and collectively, the "Applicants"), and the Rhode Island Division of Public Utilities and Carriers' Advocacy Section ("Advocacy Section") met to discuss various discovery issues, which included, in particular, the scope of certain data requests, such as Data Request Division 1-36. On June 22, 2021, the Advocacy Section provided guidance to the Applicants relating to the scope of data requests, generally, and agreed that the Applicants may use their sound judgment and the rule of reason in crafting responses to data requests and providing responsive documents, taking into account the Advocacy Section's goal of protecting customers when determining scope and relevancy.

Based on this guidance, National Grid USA and Narragansett are providing the following documents relating to the condition of the Narragansett gas and electric systems, which it provided to PPL in response to questions from PPL during the due diligence process. For ease of reference, each document is identified by a corresponding file number.

- Attachment NG-DIV 1-36-1 – RI Underground Cable Replacement Strategy Study Report, December 2017, identified as "File 1.6.1.11"
- Attachment NG-DIV 1-36-2 – 3VO Program Rhode Island, identified as "File 1.6.1.12"
- Attachment NG-DIV 1-36-3 CONFIDENTIAL – Central Rhode Island East Area Study, September 2017, identified as "File 1.6.1.13"
- Attachment NG-DIV 1-36-4 CONFIDENTIAL – East Bay Area Study, 2015, identified as "File 1.6.1.14"
- Attachment NG-DIV 1-36-5 – Form 3A Recloser Replacement Study NE, identified as "File 1.6.1.15"
- Attachment NG-DIV 1-36-6 – Planning Review Process, identified as "File 1.6.1.16"

PPL CORPORATION, PPL RHODE ISLAND HOLDINGS, LLC,
NATIONAL GRID USA, and THE NARRAGANSETT ELECTRIC COMPANY
Docket No. D-21-09
National Grid USA and The Narragansett Electric Company's
Responses to Division's First Set of Data Requests
Issued on June 8, 2021

- Attachment NG-DIV 1-36-7 CONFIDENTIAL – Providence Area Study Implementation Plan 2016 – 2030, September 2017, identified as “File 1.6.1.17”
- Attachment NG-DIV 1-36-8 – Rhode Island Study Areas, July 6, 2020, identified as “File 1.6.1.18”
- Attachment NG-DIV 1-36-9 CONFIDENTIAL –South County East Area Study, March 2018, identified as “File 1.6.1.19”
- Attachment NG-DIV 1-36-10 – Asset Age, identified as “File 1.6.1.3”
- Attachment NG-DIV 1-36-11 – Gas Asset Age, identified as “File 1.6.1.4”
- Attachment NG-DIV 1-36-12 – Question ID 1070052 FY 21-25 CAPEX Complex Project Sponsorship, identified as “File 1.6.1.61”
- Attachment NG-DIV 1-36-13 – Responses to Asset Age and Condition Questions, June 15, 2021
- Attachment NG-DIV 1-36-14 – CY19 - CY20 Gas O&M, identified as “File 1.1.2.147 Q85000351 Att. 1”
- Attachment NG-DIV 1-36-15 – New or Revised Gas Material Acceptance, identified as “File 1.1.2.148 Q85000351 Att. 2”
- Attachment NG-DIV 1-36-16 – Response to Question ID. 85000351, identified as “File 1.1.2.149”
- Attachment NG-DIV 1-36-17 – Electric Transmission and Distribution Asset Management, identified as “File 1.1.2.152”
- Attachment NG-DIV 1-36-18 CONFIDENTIAL – Response to Question ID. 85000191, identified as “File 1.6.1.202”
- Attachments NG-DIV 1-36-19-1 through 1-36-19-5 CONFIDENTIAL – Cumberland Documents, identified as “File 1.6.1.203 Att.8500191”
- Attachments NG-DIV 1-36-20-1 through 1-36-20-5 CONFIDENTIAL – Exeter Documents, identified as “File 1.6.1.203 Att. 85000191”

PPL CORPORATION, PPL RHODE ISLAND HOLDINGS, LLC,
NATIONAL GRID USA, and THE NARRAGANSETT ELECTRIC COMPANY
Docket No. D-21-09
National Grid USA and The Narragansett Electric Company's
Responses to Division's First Set of Data Requests
Issued on June 8, 2021

- Attachment NG-DIV 1-36-21 – Response to Question ID. 85000190, identified as “File 1.6.1.204”
- Attachment NG-DIV 1-36-22 – Responses to Asset Age & Condition Questions, June 15, 2021

Attachments NG-DIV 1-36-3, NG-DIV 1-36-4, NG-DIV 1-36-7, NG-DIV 1-36-9, NG-DIV 1-36-18, NG-DIV 1-36-19-1, and NG-DIV 1-36-20-2 contain confidential critical energy infrastructure information (“CEII”). Accordingly, National Grid USA and Narragansett are providing the confidential versions of these attachments pursuant to a Motion for Protective Treatment of Confidential Information and are providing redacted versions for the public filing.

Supplemental Response:

National Grid USA and Narragansett refer to the Advocacy Section's guidance discussed in their original response, above. National Grid USA and Narragansett have identified the following additional documents relating to the condition of the Narragansett gas and electric systems, which it provided to PPL in response to questions from PPL during the due diligence process.

- Attachment NG-DIV 1-36-23-Supp – RI Gas Distribution System PCB Sample Summary, identified as “File 1.6.1.52”
- Attachment NG-DIV 1-36-24-Supp – 2017 System Integrity Report, identified as “File 1.6.1.93”
- Attachment NG-DIV 1-36-25-Supp – 2018 System Integrity Report, identified as “File 1.6.1.94”
- Attachment NG-DIV 1-36-26-Supp – 2019 System Integrity Report, identified as “File 1.6.1.95”

Gas District Name	abbreviations for gas distribution		District	Acceptable Pipe types	
	districts	Towns			
Bristol Warren Gas	BWG	Barrington	PGM	Cast Iron	CI
Newport Gas	NG	Bristol	BWG	Bare Steel	BS
Providence Gas (Burriville)	PGB	Burriville	PGB	Plastic	PL
Providence Gas (Main)	PGM	Central Falls	VG	Wrapped Steel	WS
Providence Gas (Tiverton)	PGT	Coventry	PGM		
South County Gas	SCG	Cranston	PGM		
Valley Gas	VG	Cumberland	VG		
		East Greenwich	PGM		
		East Providence	PGM		
		Exeter	PGM		
		Glocester	PGM		
		Hopkinton	SCG		
		Johnston	PGM		
		Lincoln	VG		
		Middletown	NG		
		Narragansett	PGM		
		Newport	NG		
		North Kingstown	PGM		
		North Providence	PGM		
		North Smithfield	VG		
		Pawtucket	VG		
		Portsmouth	NG		
		Providence	PGM		
		Scituate	PGM		
		Smithfield	PGM		
		South Kingstown	PGM		
		Tiverton	PGT		
		Warren	BWG		
		Warwick	PGM		
		West Greenwich	PGM		
		West Warwick	PGM		
		Westerly	SCG		
		Woonsocket	VG		
					Town without service
					Charlestown
					Foster
					Jamestown
					Little Compton
					New Shoreham
					Richmor

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
7/7/2015			Morris	Savoy	Providence	PGM	6	PL	0	1	15H0407-01
7/7/2015			Morris	Savoy	Providence	PGM	6	PL	0	1	15H0407-02
7/10/2015		680	Hope	Lewis	Providence	PGM	6	CI	4.3	1	15H0403-01
7/10/2015		680	Hope	Lewis	Providence	PGM	6	CI	0	1	15H0403-02
7/13/2015			Sumter	Niagria	Providence	PGM	6	PL	26	4	15H0408-01
7/14/2015			Sumter	Niagria	Providence	PGM	6	PL	16	2	15H0408-02
7/14/2015			Vasser	Morris	Providence	PGM	6	CI	0	1	15H0414-01
7/14/2015			Vasser	Morris	Providence	PGM	6	CI	0	1	15H0414-02
7/17/2015			Hope	Braman	Providence	PGM	6	CI	0.31	0.2	15H400-01
7/17/2015			Hope	Braman	Providence	PGM	6	CI	0.25	0.2	15H400-02
7/21/2015			Gooding	Hope	Bristol	BWG	6	CI	1	1	15H0402-01
7/21/2015			Gooding	Hope	Bristol	BWG	6	CI	28	10	15H0402-02
7/22/2015			Brightridge	Warren	East Providence	PGM	6	CI	170	20	15H0413-01
7/22/2015			Brightridge	Warren	East Providence	PGM	6	CI	160	20	15H0413-02
7/23/2015			Fenmoor	Warren	East Providence	PGM	6	CI	26	4	15H0411-01
7/23/2015			Fenmoor	Warren	East Providence	PGM	6	CI	62	10	15H0411-02
7/23/2015		80	Argol	Smart	Providence	PGM	6	CI	1.5	1	15I1297-01
7/23/2015		80	Argol	Smart	Providence	PGM	6	CI	0.31	1	15I1297-02
7/23/2015			Main	Brown	Warren	BWG	10	CI	82	20	15H0406-01
7/23/2015			Main	Brown	Warren	BWG	10	CI	37	10	15H0406-02
7/30/2015		131	Gentin	Isabella	Providence	PGM	6	PL	0	1	15H0410-01
7/30/2015		131	Gentin	Isabella	Providence	PGM	6	PL	0	1	15H0410-02
7/31/2015		95	Modena	Forbes	Providence	PGM	6	PL	0	1	15H0409-01
7/31/2015		95	Modena	Forbes	Providence	PGM	6	PL	0	1	15H0409-02
8/3/2015		61	Ardmore	Forbes	Providence	PGM	6	CI	1.9	1	15I0529-01
8/3/2015		61	Ardmore	Forbes	Providence	PGM	6	CI	1.7	1	15I0529-02
8/12/2015		593	Hunt	Liberty	Central Falls	VG	4	CI	0	1	16H0944-01
8/12/2015		593	Hunt	Liberty	Central Falls	VG	4	CI	0	1	16H0944-02
8/18/2015			Summer	Central	Lincoln	VG	6	CI	0	1	16H0943-01
8/18/2015			Summer	Central	Lincoln	VG	6	CI	0	1	16H0943-02
8/19/2015		180	George	Brook	Providence	PGM	8	PL	3200	400	15I0521-01
8/19/2015		180	George	Brook	Providence	PGM	8	PL	1500	200	15I0521-02
8/24/2015			Brook	George	Providence	PGM	12	CI	430	100	15I0525-01
8/24/2015			Brook	George	Providence	PGM	12	CI	390	100	15I0525-02
8/31/2015			Brightridge		East Providence	PGM	6	CI	2.1	1	15I0528-01
8/31/2015			Brightridge		East Providence	PGM	6	CI	0	1	15I0528-02
9/1/2015			West	Warren	East Providence	PGM	6	CI	0.74	1	15I0513-01
9/1/2015			West	Warren	East Providence	PGM	6	CI	49	1	15I0513-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
9/2/2015			High	Union	Bristol	BWG	6	PL	0	1	15I0515-01
9/2/2015			High	Union	Bristol	BWG	6	PL	0	1	15I0515-02
9/3/2015			Brightridge	Outlook	East Providence	PGM	6	CI	23	4	15I0518-01
9/3/2015			Brightridge	Outlook	East Providence	PGM	6	CI	30	4	15I0518-02
9/3/2015		180	George	Brook	Providence	PGM	6	BS	9000	1000	15I1298-01
9/3/2015		180	George	Brook	Providence	PGM	6	BS	12000	1000	15I1298-02
9/4/2015			Warren	Brown	East Providence	PGM	6	CI	26	5	15I0524-01
9/4/2015			Warren	Brown	East Providence	PGM	6	CI	32	5	15I0524-02
9/9/2015			South Main	High	Burriville	PGB	6	PL	0	1	15I0519-01
9/9/2015			South Main	High	Burriville	PGB	6	PL	0	1	15I0519-02
9/11/2015		108	Bliss		East Providence	PGM	6	PL	2.2	1	15I1295-01
9/11/2015		108	Bliss		East Providence	PGM	6	PL	1.8	1	15I1295-02
9/15/2015		295	Juniper		East Providence	PGM	6	CI	0	1	15I1294-01
9/15/2015		295	Juniper		East Providence	PGM	6	CI	0	1	15I1294-02
9/16/2015		100	Arlington	Juniper	East Providence	PGM	6	CI	0	1	15I1296-01
9/16/2015		100	Arlington	Juniper	East Providence	PGM	6	CI	0	1	15I1296-02
9/16/2015			Larch	Juniper	East Providence	PGM	6	CI	0	1	15I1299-01
9/16/2015			Larch	Juniper	East Providence	PGM	6	CI	0.39	1	15I1299-02
9/17/2015			Larch	Juniper	East Providence	PGM	6	BS	6.1	2	15I1290-01
9/17/2015			Larch	Juniper	East Providence	PGM	6	BS	6.2	2	15I1290-02
9/18/2015			Berlky St. South	Juniper	East Providence	PGM	6	CI	0.41	1	15I1292-01
9/18/2015			Berlky St. South	Juniper	East Providence	PGM	6	CI	0.35	1	15I1292-02
9/18/2015			Bently	Juniper	Newport	NG	6	CI	0.72	1	15I1300-01
9/18/2015			Bently	Juniper	Newport	NG	6	CI	0	1	15I1300-02
9/22/2015		398	Juniper	Public	East Providence	PGM	6	PL	8.1	1	15I1291-01
9/22/2015		398	Juniper	Public	East Providence	PGM	6	PL	3.2	1	15I1291-02
9/23/2015			South Broadway	Bliss	East Providence	PGM	6	CI	23	2	15I1293-01
9/23/2015			South Broadway	Bliss	East Providence	PGM	6	CI	69	2	15I1293-02
9/25/2015			Northup	Edward	Providence	PGM	12	PL	0	1	15I1301-01
9/25/2015			Northup	Edward	Providence	PGM	12	PL	0	1	15I1301-02
9/29/2015		18	Taylor	Simpson	North Providence	PGM	6	CI	0.91	1	15I1302-01
9/29/2015		18	Taylor	Simpson	North Providence	PGM	6	CI	0.51	1	15I1302-02
9/29/2015		85	Longwood	Isabella	Providence	PGM	6	CI	5.7	1	15J1377-01
9/29/2015		85	Longwood	Isabella	Providence	PGM	6	CI	0.47	1	15J1377-02
10/5/2015		180	Enfield	Naples	Providence	PGM	6	CI	0	1	15J1370-01
10/5/2015		180	Enfield	Naples	Providence	PGM	6	CI	0	2	15J1370-02
10/7/2015		1512	Mendon Road	Scott	Cumberland	VG	6	bs	0	1	16H0946-01
10/7/2015		1512	Mendon Road	Scott	Cumberland	VG	6	bs	0	1	16H0946-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
10/21/2015		59	Madison Ave	Holland St	Cranston	PGM	6	CI	9.3	5	15J1374-01
10/21/2015		59	Madison Ave	Holland St	Cranston	PGM	6	CI	25	10	15J1374-02
10/26/2015			Weybosett	Dorrance	Providence	PGM	6	CI	20	10	15J1373-01
10/26/2015			Weybosett	Dorrance	Providence	PGM	6	CI	0.68	1	15J1373-02
10/28/2015			Broadway	Williams St.	East Providence	PGM	6	CI	43	8	15K0865-01
10/28/2015			Broadway	Williams St.	East Providence	PGM	6	CI	0.99	0.2	15K0865-02
10/29/2015			Elmwood Ave	Plenty	Providence	PGM	12	CI	67	10	15K0866-01
10/29/2015			Elmwood Ave	Plenty	Providence	PGM	12	CI	48	10	15K0866-02
10/30/2015		120	John St.	Williams St.	East Providence	PGM	6	CI	1.8	1	15K0867-01
10/30/2015		120	John St.	Williams St.	East Providence	PGM	6	CI	19	1	15K0867-02
11/2/2015			Northup Ave	Edwards St.	Providence	PGM	6	CI	2	1	15K0868-01
11/2/2015			Northup Ave	Edwards St.	Providence	PGM	6	CI	1.3	1	15K0868-02
11/4/2015		537	Atwells Ave	Harris Ave	Providence	PGM	12	CI	16	4	15K0869-01
11/4/2015		537	Atwells Ave	Harris Ave	Providence	PGM	12	CI	24	4	15K0869-02
11/4/2015		333	Harris Ave	Granger St.	Providence	PGM	12	CI	7.2	1	15K0870-01
11/4/2015		333	Harris Ave	Granger St.	Providence	PGM	12	CI	7.8	1	15K0870-02
11/6/2015		225	Narragansett Ave	Sherman	East Providence	PGM	6	CI	6.5	2	15K0864-01
11/6/2015		225	Narragansett Ave	Sherman	East Providence	PGM	6	CI	1.3	1	15K0864-02
11/19/2015			Hartford	Laurel Hill	Providence	PGM	6	CI	8.1	1	16A0080-01
11/19/2015			Hartford	Laurel Hill	Providence	PGM	6	CI	15	2	16A0080-02
11/19/2015			Heath	Hartford	Providence	PGM	6	PL	0	1	16A0086-01
11/19/2015			Heath	Hartford	Providence	PGM	6	PL	0.93	1	16A0086-02
11/23/2015		95	Hartford		Providence	PGM	6	CI	210	100	16A0082-01
11/23/2015		95	Hartford		Providence	PGM	6	CI	170	100	16A0082-02
12/3/2015			Diman	Angell	Providence	PGM	6	CI	12	5	16A0081-01
12/3/2015			Diman	Angell	Providence	PGM	6	CI	42	10	16A0081-02
12/4/2015		310	Westminster	Mathewson	Providence	PGM	12	ci	35	12	16A0079-01
12/4/2015		310	Westminster	Mathewson	Providence	PGM	12	ci	17	6	16A0079-02
12/14/2015		1054	Green End		Middletown	NG	8	WS	2.49	1	16A0083-01
12/14/2015		1054	Green End		Middletown	NG	8	WS	62	8	16A0083-02
12/14/2015			Governor	Angell	Providence	PGM	4	CI	2.1	1	16A0078-01
12/14/2015			Governor	Angell	Providence	PGM	4	CI	7.3	1	16A0078-02
12/16/2015			Briar	Upper College	South Kingstown	PGM	6	BS	11	5	16A0084-01
12/16/2015			Briar	Upper College	South Kingstown	PGM	6	BS	7.1	5	16A0084-02
12/18/2015			Post	Devils Foot	North Kingstown	PGM	8	PL	3.28	1	16A0085-01
12/18/2015			Post	Devils Foot	North Kingstown	PGM	8	PL	1.4	1	16A0085-02
12/28/2015			URI		South Kingstown	PGM	6	WS	1.2	1	16A0087-01
12/28/2015			URI		South Kingstown	PGM	6	WS	2.2	1	16A0087-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
1/7/2016		87	Ruin	Nelson	East Providence	PGM	6	CI	1.3	1	16A0093-01
1/7/2016		87	Ruin	Nelson	East Providence	PGM	6	CI	1.8	1	16A0093-02
1/13/2016			Bently	Juniper	East Providence	PGM	6	CI	6.3	2	16A1010-01
1/13/2016			Bently	Juniper	East Providence	PGM	6	CI	1.8	1	16A1010-02
1/13/2016		72	Bliss	Charity	East Providence	PGM	6	bs	4.5	2	16A0991-01
1/13/2016		72	Bliss	Charity	East Providence	PGM	6	bs	4.3	2	16A0991-02
3/31/2016			Hamlet Ave	Davidson	Woonsocket	VG	12	BS	0.33	1	16H0947-01
3/31/2016			Hamlet Ave	Davidson	Woonsocket	VG	12	BS	0.26	1	16H0947-02
4/14/2016			Oregon	Olympia	Pawtucket	VG	6	ci	1.6	1	16F0322-01
4/14/2016			Oregon	Olympia	Pawtucket	VG	6	ci	1.3	1	16F0322-02
5/6/2016			Oregon	Dewey	East Providence	PGM	6	CI	1.2	1	16F0324-01
5/6/2016			Oregon	Dewey	East Providence	PGM	6	CI	0.95	1	16F0324-02
5/13/2016			Dewey	Oregon	Pawtucket	VG	6	CI	1.8	1	16F0317-01
5/13/2016			Dewey	Oregon	Pawtucket	VG	6	CI	1.3	1	16F0317-02
5/16/2016			Natick	Wilber	Cranston	PGM	8	BS	7	2	16E1154-01
5/16/2016			Natick	Wilber	Cranston	PGM	8	BS	9.9	2	16E1154-02
5/16/2016			Bourne	Brown	North Providence	PGM	6	CI	4.7	2	16E1153-01
5/16/2016			Bourne	Brown	North Providence	PGM	6	CI	1.4	1	16E1153-02
5/16/2016		169	Pearl	West Clifford	Providence	PGM	6	CI	0	1	16F0315-01
5/16/2016		169	Pearl	West Clifford	Providence	PGM	6	CI	0	1	16F0315-02
5/17/2016			Don	Pawtucket	East Providence	PGM	6	CI	6.3	2	16E1151-01
5/17/2016			Don	Pawtucket	East Providence	PGM	6	CI	4.8	2	16E1151-02
5/18/2016		141	Colonial		Cranston	PGM	6	CI	0	1	16E1152-01
5/18/2016		141	Colonial		Cranston	PGM	6	CI	0	1	16E1152-02
5/23/2016		78	Kent	Clyde	East Providence	PGM	6	PL	0	1	16E1155-01
5/23/2016		78	Kent	Clyde	East Providence	PGM	6	PL	0	1	16E1155-02
5/23/2016			Byron	Oregon	Pawtucket	VG	6	CI	0.4	0.2	16F0312-01
5/23/2016			Byron	Oregon	Pawtucket	VG	6	CI	0.95	0.2	16F0312-02
5/23/2016			Byron	Oregon	Pawtucket	VG	6	CI	0.72	0.2	16F0318-01
5/23/2016			Byron	Oregon	Pawtucket	VG	6	CI	0.37	0.2	16F0318-02
5/24/2016		2580	Pawtucket Ave	Walmer	East Providence	PGM	8	CI	39	8	16F0311-01
5/24/2016		2580	Pawtucket Ave	Walmer	East Providence	PGM	8	CI	18	4	16F0311-02
5/25/2016			Woonasquatucket	Halsey	North Providence	PGM	8	CI	5.6	1	16F0314-01
5/25/2016			Woonasquatucket	Halsey	North Providence	PGM	8	CI	18	4	16F0314-02
5/25/2016		85	West Clifford	Pearl	Providence	PGM	6	PL	0.44	0.2	16F0316-01
5/25/2016		85	West Clifford	Pearl	Providence	PGM	6	PL	0.95	0.2	16F0316-02
5/27/2016		101	Winter	Central	Lincoln	VG	6	CI	0	1	SC23707-01
5/27/2016		101	Winter	Central	Lincoln	VG	6	CI	0	1	SC23707-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
5/31/2016			Bay View	High	Bristol	BWG	10	CI	21	8	16F0321-01
5/31/2016			Bay View	High	Bristol	BWG	10	CI	39	10	16F0321-02
5/31/2016		426	Friendship	Somersset	Providence	PGM	6	PL	1.2	1	16F0310-01
5/31/2016		426	Friendship	Somersset	Providence	PGM	6	PL	2.4	1	16F0310-02
5/31/2016		2248	post	Strawberry Field	Warwick	PGM	6	PL	24000	2000	16F0320-01
5/31/2016		2248	post	Strawberry Field	Warwick	PGM	6	PL	6000	2000	16F0320-02
6/1/2016		444	Friendship	Mornign Star ROW	Providence	PGM	6	PL	0	1	16F0319-01
6/1/2016		444	Friendship	Mornign Star ROW	Providence	PGM	6	PL	0	1	16F0319-02
6/1/2016			Post	Greene	Warwick	PGM	6	bs	86	20	16F0323-01
6/1/2016			Post	Greene	Warwick	PGM	6	bs	64	20	16F0323-02
6/2/2016		100	Newport	New	East Providence	PGM	8	BS	5.5	5	16F0325-01
6/2/2016		100	Newport	New	East Providence	PGM	8	BS	3	3	16F0325-02
6/2/2016		47	Somerset	Pine	Providence	PGM	6	CI	0	5	16F0326-01
6/2/2016		47	Somerset	Pine	Providence	PGM	6	CI	0	5	16F0326-02
6/2/2016			Bailey	Ballou	Woonsocket	VG	6	CI	0.46	1	SC23713-01
6/2/2016			Bailey	Ballou	Woonsocket	VG	6	CI	0.35	1	SC23713-02
6/3/2016		45	Portland	Pine	Providence	PGM	6	CI	0	5	16F0327-01
6/3/2016		45	Portland	Pine	Providence	PGM	6	CI	0	10	16F0327-02
6/6/2016			Pearl	Pine	Providence	PGM	6	CI	0	1	SC23706-01
6/6/2016			Pearl	Pine	Providence	PGM	6	CI	0	1	SC23706-02
6/6/2016			Bailey	Ballou	Woonsocket	VG	6	CI	0	1	SC23737-01
6/6/2016			Bailey	Ballou	Woonsocket	VG	6	CI	0	1	SC23737-02
6/8/2016			Oregon	Pollard	Pawtucket	VG	6	CI	2.31	1	SC23709-01
6/8/2016			Oregon	Pollard	Pawtucket	VG	6	CI	1.89	1	SC23709-02
6/8/2016			Gano	Pitman	Providence	PGM	6	PL	8.18	1	SC23712-01
6/8/2016			Gano	Pitman	Providence	PGM	6	PL	2.66	1	SC23712-02
6/9/2016			Watch hill	Timothy	Westerly	SCG	6	BS	0	1	SC23711-01
6/9/2016			Watch hill	Timothy	Westerly	SCG	6	BS	0	1	SC23711-02
6/11/2016		99	Spring		Lincoln	VG	6	CI	0	1	SC23736-01
6/12/2016		100	Spring		Lincoln	VG	6	CI	0	1	SC23736-02
6/13/2016			Dorrance	Friendship	Providence	PGM	16	CI	0	1	SC23705-01
6/14/2016			Dorrance	Friendship	Providence	PGM	16	CI	0	1	SC23705-02
6/15/2016			Oregon	Manitree	Pawtucket	VG	6	CI	0.35	1	SC23719-01
6/15/2016			Oregon	Manitree	Pawtucket	VG	6	CI	0	1	SC23719-02
6/15/2016			Angell	Governor	Providence	PGM	6	CI	0.49	1	SC23715-01
6/15/2016			Angell	Governor	Providence	PGM	6	CI	1.47	1	SC23715-02
6/16/2016			Eagle	Valley	Providence	PGM	6	CI	74.2	1	SC23775-01
6/16/2016			Eagle	Valley	Providence	PGM	6	CI	72.5	1	SC23775-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
6/20/2016			High	Highland	South Kingstown	PGM	6	bs	0	1	16H0948-01
6/20/2016			High	Highland	South Kingstown	PGM	6	bs	0.55	1	16H0948-02
6/22/2016			Control	Sumner	Lincoln	VG	6	CI	0	1	SC23725-01
6/22/2016			Control	Sumner	Lincoln	VG	6	CI	0	1	SC23725-02
6/27/2016		10	Weybosett	Post Office Ct	Providence	PGM	6	CI	18.1	1	SC23726-01
6/27/2016		10	Weybosett	Post Office Ct	Providence	PGM	6	CI	11.8	1	SC23726-02
6/28/2016			Farrar	Budlong	Cranston	PGM	6	BS	0.22	1	SC23717-01
6/28/2016			Farrar	Budlong	Cranston	PGM	6	BS	0.58	1	SC23717-02
6/28/2016		23	Campbell	Arcadia	East Providence	PGM	6	PL	18.39	1	SC23702-01
6/28/2016		23	Campbell	Arcadia	East Providence	PGM	6	PL	3.59	1	SC23702-02
6/30/2016		1039	Reservoir		Cranston	PGM	6	CI	1.1	1	16H0950-01
6/30/2016		25	Seascape	Leal	Middletown	NG	6	PL	0	1	SC23704-01
6/30/2016		25	Seascape	Leal	Middletown	NG	6	PL	0	1	SC23704-02
7/17/2016			Main	Heaton	Pawtucket	VG	6	CI	0.53	1	16I0110-01
7/17/2016			Main	Heaton	Pawtucket	VG	6	CI	0.53	1	16I0110-02
7/22/2016		76	Valleybrook	Seabrook	East Providence	PGM	6	PL	1.3	1	16H0953-01
7/22/2016		76	Valleybrook	Seabrook	East Providence	PGM	6	PL	4.8	1	16H0953-02
7/26/2016		166	Brown	Martin	East Providence	PGM	6	CI	14	2	16H0951-01
7/26/2016		166	Brown	Martin	East Providence	PGM	6	CI	17	2	16H0951-02
7/26/2016		209	Plainfield	Walnut	Providence	PGM	8	CI	0	1	16H0954-01
7/26/2016		209	Plainfield	Walnut	Providence	PGM	8	CI	0	1	16H0954-02
7/27/2016		1600	Chalkstone	Brinkley	Providence	PGM	12	CI	4.7	1	16H0955-01
7/27/2016		1600	Chalkstone	Brinkley	Providence	PGM	12	CI	9	1	16H0955-02
8/1/2016			Gano	India	Providence	PGM	6	CI	0	1	16H0958-01
8/1/2016			Gano	India	Providence	PGM	6	CI	0	1	16H0958-02
8/4/2016			Elmwood Ave		Providence	PGM	6	CI	0	1	16H0961-01
8/4/2016			Elmwood Ave		Providence	PGM	6	CI	0	1	16H0961-02
8/5/2016			Elmwood Ave		Providence	PGM	6	CI	0	1	16H0962-01
8/5/2016			Elmwood Ave		Providence	PGM	6	CI	0	1	16H0962-02
8/9/2016		71	Sumner	Central	Lincoln	VG	6	CI	0	1	16I0107-01
8/9/2016		71	Sumner	Central	Lincoln	VG	6	CI	0	1	16I0107-02
8/9/2016			Martin	Angell	Providence	PGM	6	CI	66	10	16H0949-01
8/9/2016			Martin	Angell	Providence	PGM	6	CI	140	20	16H0949-02
8/11/2016			Friendship	Richmond	Providence	PGM	6	CI	1.1	1	16H0959-01
8/11/2016			Friendship	Richmond	Providence	PGM	6	CI	0.64	1	16H0959-02
8/17/2016		1265	Reservoir	Woodbine	Cranston	PGM	6	CI	0.56	1	16H0952-01
8/17/2016		1265	Reservoir	Woodbine	Cranston	PGM	6	CI	0.77	1	16H0952-02
8/19/2016			Friendship	Dorrance	Providence	PGM	20	CI	21	4	16I0112-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
8/19/2016			Friendship	Dorrance	Providence	PGM	20	CI	110	20	16I0112-02
8/22/2016			Coddington	Lake Erie	Middletown	NG	4	BS	0	1	1608632-01
8/22/2016			Coddington	Lake Erie	Middletown	NG	4	BS	0	1	1608632-02
8/22/2016			West Main road	Maplewood	Middletown	NG	6	PL	0	1	1608631-01
8/22/2016			West Main road	Maplewood	Middletown	NG	6	PL	0	1	1608631-02
8/24/2016		116	Orange	Friendship	Providence	PGM	12	CI	4.6	2	16I0115-01
8/24/2016		116	Orange	Friendship	Providence	PGM	12	CI	6.3	2	16I0115-02
8/29/2016		166	Waterman	Governor	Providence	PGM	6	CI	24	2	16I0111-01
8/29/2016		166	Waterman	Governor	Providence	PGM	6	CI	46	8	16I0111-02
8/30/2016			wood	Shaw	Bristol	BWG	10	CI	60	10	16I0116-01
8/30/2016			wood	Shaw	Bristol	BWG	10	CI	7.4	2	16I0116-02
9/8/2016			Curry Road	Enterprise	Cranston	PGM	6	CI	1.8	1	16I0757-01
9/8/2016			Curry Road	Enterprise	Cranston	PGM	6	CI	3.1	2	16I0757-02
9/9/2016		2637	West Shore	Franley	Warwick	PGM	6	BS	7.5	2	16I0759-01
9/9/2016		2637	West Shore	Franley	Warwick	PGM	6	BS	46	4	16I0759-02
9/12/2016			Woodridge	Reservoir	Cranston	PGM	6	CI	4.9	2	16I0758-01
9/12/2016			Woodridge	Reservoir	Cranston	PGM	6	CI	1.5	1	16I0758-02
9/12/2016		2637	West Shore	Albert	Warwick	PGM	6	bs	44	4	16I0761-01
9/12/2016		2637	West Shore	Albert	Warwick	PGM	6	bs	14	20	16I0761-02
9/15/2016			Cranston	Washington	Cranston	PGM	8	BS	0	1	16I0756-01
9/15/2016			Cranston	Washington	Cranston	PGM	8	BS	0	1	16I0756-02
9/15/2016		3259	Post	Colonial	Warwick	PGM	4	PL	0	1	16I0754-01
9/15/2016		3259	Post	Colonial	Warwick	PGM	4	PL	0	1	16I0754-02
9/16/2016		UP 140	Westerly Bradford Road		Westerly	SCG	8	PL	0	1	16I0762-01
9/16/2016		UP 140	Westerly Bradford Road		Westerly	SCG	8	PL	0	1	16I0762-02
9/21/2016		51	Gibson	Ridge	Bristol	BWG	6	PL	0.85	1	16J1119-01
9/21/2016		51	Gibson	Ridge	Bristol	BWG	6	PL	0.58	1	16J1119-02
9/21/2016		899	Manton	Chalkstone	Providence	PGM	6	CI	0	1	16J1117-01
9/21/2016		899	Manton	Chalkstone	Providence	PGM	6	CI	0	1	16J1117-02
9/21/2016		899	Manton	Chalkstone	Providence	PGM	12	CI	110	10	16J1116-01
9/21/2016		899	Manton	Chalkstone	Providence	PGM	12	CI	100	10	16J1116-02
9/28/2016			Elmwood Ave	McKinley	Providence	PGM	6	CI	0	2	16J1121-01
9/28/2016			Elmwood Ave	McKinley	Providence	PGM	6	CI	0	2	16J1121-02
9/28/2016			Dexter	Cranston	Providence	PGM	12	CI	0	2	16J1120-01
9/28/2016			Dexter	Cranston	Providence	PGM	12	CI	0	2	16J1120-02
10/3/2016			Westerly Bradford Road	Bradford	Westerly	SCG	6	PL	0	2	16J1118-01
10/3/2016			Westerly Bradford Road	Bradford	Westerly	SCG	6	PL	0	2	16J1118-02
10/31/2016		2336	Pawtucket Ave	Warren	East Providence	PGM	12	CI	7.75	1	SC29178-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
10/31/2016		2336	Pawtucket Ave	Warren	East Providence	PGM	12	CI	11.01	1	SC29178-02
10/31/2016	G		Manchester Gate		Providence	PGM	12	BS	1.02	1	SC29180-01
10/31/2016	G		Manchester Gate		Providence	PGM	12	BS	2.53	1	SC29180-02
11/6/2016			Knight	Greenwich	Warwick	PGM	8	BS	14.65	1	SC29145-01
11/6/2016			Knight	Greenwich	Warwick	PGM	8	BS	20.65	1	SC29145-02
11/8/2016			Allens	Terminal	Providence	PGM	12	BS	22.7	5	SC29144-01
11/8/2016			Allens	Terminal	Providence	PGM	12	BS	2.5	1	SC29144-02
11/9/2016		39	Maple St		cranston	PGM	6	ci	27.3	1	SC29123-01
11/9/2016		39	Maple St		cranston	PGM	6	ci	5.26	1	SC29123-02
11/10/2016		46	Oak St.	Ducksworth	Cranston	PGM	6	CI	5.12	1	SC29149-01
11/10/2016		46	Oak St.	Ducksworth	Cranston	PGM	6	CI	1.26	1	SC29149-02
11/14/2016		50	Oak		Cranston	PGM	6	CI	5.85	1	SC29156-01
11/14/2016		50	Oak		Cranston	PGM	6	CI	0.54	1	SC29156-02
11/14/2016		19	Wilson		East Providence	PGM	6	CI	51.6	1	SC29152-01
11/14/2016		19	Wilson		East Providence	PGM	6	CI	8.33	1	SC29152-02
11/15/2016		18	Newman rd.	Aquidneck	Middletown	NG	6	BS	1.66	1	SC29141-01
11/15/2016		18	Newman rd.	Aquidneck	Middletown	NG	6	BS	0.89	0.2	SC29141-02
11/17/2016			Pawtucket Ave	Rt. 195	East Providence	PGM	12	CI	64.08	5	SC29143-01
11/17/2016			Pawtucket Ave	Rt. 195	East Providence	PGM	12	CI	133.1	5	SC29143-02
11/17/2016		385	Woonasquatucket		North Providence	PGM	8	CI	0	1	SC29153-01
11/17/2016		385	Woonasquatucket		North Providence	PGM	8	CI	0	1	SC29153-02
11/21/2016			Centerville	Post Office Ct	Warwick	PGM	12	PL	1.88	1	SC29142-01
11/21/2016			Centerville	Post Office Ct	Warwick	PGM	12	PL	1.34	1	SC29142-02
11/22/2016		70	Centerville	Meadow	Warwick	PGM	12	BS	80.4	1	SC29146-01
11/22/2016		70	Centerville	Meadow	Warwick	PGM	12	BS	66.73	1	SC29146-02
12/1/2016		2025	Smith St	Mineral Spring St	North Providence	PGM	8	CI	21.65	1	SC29140-01
12/1/2016		2025	Smith St	Mineral Spring St	North Providence	PGM	8	CI	69.2	1	SC29140-02
12/1/2016		176	Eliza	Hartford	Providence	PGM	6	CI	0	1	17A1253-01
12/1/2016		176	Eliza	Hartford	Providence	PGM	6	CI	0	1	17A1253-02
12/2/2016			Hartford	Glenbridge	Providence	PGM	6	CI	280	40	17A1255-01
12/2/2016			Hartford	Glenbridge	Providence	PGM	6	CI	910	160	17A1255-02
12/5/2016			Hope	Wickenden	Providence	PGM	6	CI	0	1	17A1248-01
12/5/2016			Hope	Wickenden	Providence	PGM	6	CI	0	1	17A1248-02
12/6/2016			Broad	Public	Providence	PGM	6	CI	5.8	1	17A1249-01
12/6/2016			Broad	Public	Providence	PGM	6	CI	5.3	1	17A1249-02
12/12/2016		697	Metacom	Tupelo	Bristol	BWG	6	bs	0.84	0.5	17A1252-01
12/14/2016		721	Metacom	Tupelo	Bristol	BWG	6	bs	0	1	17A1251-01
1/16/2017			Slater	Irving	Providence	PGM	6	CI	2.8	1	17A1247-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
1/16/2017			Slater	Irving	Providence	PGM	6	CI	9.2	1	17A1247-02
1/17/2017			Tabor	Angell	Providence	PGM	6	CI	180	20	17A1254-01
1/17/2017			Tabor	Angell	Providence	PGM	6	CI	89	10	17A1254-02
1/17/2017		40	Blackstone	Irving	Providence	PGM	6	CI	72	8	17A1250-01
1/17/2017		40	Blackstone	Irving	Providence	PGM	6	CI	41	4	17A1250-02
2/8/2017			Dyer	Puritan	Cranston	PGM	8	CI	32.0	10	17D0912-01
2/8/2017			Dyer	Puritan	Cranston	PGM	8	CI	39.0	10	17D0912-01
2/8/2017			Homestead	Puritan	Cranston	PGM	12	CI	11.0	2	17D0914-01
2/8/2017			Homestead	Puritan	Cranston	PGM	12	CI	11.0	2	17D0914-01
4/5/2017		150	Ives	Fremont	Providence	PGM	6	ci	8.8	2	17D0916-01
4/5/2017		150	Ives	Fremont	Providence	PGM	6	ci	8.8	2	17D0916-02
4/7/2017		550	Pontiac	Hodsel	Cranston	PGM	6	ci	0	2	17D0924-01
4/7/2017		550	Pontiac	Hodsel	Cranston	PGM	6	ci	0	1	17D0924-02
4/12/2017			Pidge	Dartmouth	Pawtucket	VG	6	CI	0	1	17E0798-01
4/12/2017			Pidge	Dartmouth	Pawtucket	VG	6	CI	0	1	17E0798-02
4/14/2017			Pidge	East	Pawtucket	VG	4		0	1	17E0804-01
4/14/2017			Pidge	East	Pawtucket	VG	4		0	1	17E0804-02
4/14/2017			East	Hillside	Pawtucket	VG	6	CI	0	1	17E0801-01
4/14/2017			East	Hillside	Pawtucket	VG	6	CI	0	1	17E0801-02
4/27/2017			Coles	Roosevelt	Pawtucket	VG	6	CI	0	1	17E1044-01
4/27/2017			Coles	Roosevelt	Pawtucket	VG	6	CI	0	1	17D0924-03
5/8/2017			East	Hillside	Pawtucket	VG	6	PL	0	1	17E0794-01
5/8/2017			East	Hillside	Pawtucket	VG	6	PL	0	1	17E0794-02
5/10/2017		2289	Pawtucekt		East Providence	PGM	12	CI	68	10	17E0802-01
5/10/2017		2289	Pawtucekt		East Providence	PGM	12	CI	68	10	17E0802-02
5/11/2017			Broad	Edgemere	Cranston	PGM	6	bs	0	1	17E0800-01
5/11/2017			Broad	Edgemere	Cranston	PGM	6	bs	1	1	17E0800-02
5/11/2017		2336	Pawtucket Ave	Warren	East Providence	PGM	8	PL	0	1	17E0796-01
5/11/2017		2336	Pawtucket Ave	Warren	East Providence	PGM	8	PL	9.5	4	17E0796-02
5/11/2017		59	Pierce	Pond	Westerly	SCG	6	PL	0	1	17E0799-01
5/11/2017		59	Pierce	Pond	Westerly	SCG	6	PL	0	1	17E0799-02
5/11/2017			Cross	Elm	Westerly	SCG	8	CI	0	1	17E0797-01
5/12/2017		108	Hill	Morgan	North Providence	PGM	6	CI	0	1	17E0803-01
5/12/2017		108	Hill	Morgan	North Providence	PGM	6	CI	0	1	17E0803-02
5/15/2017			East Ave	Ridge	Pawtucket	VG	6	CI	0	1	17F0545-01
5/15/2017			East Ave	Ridge	Pawtucket	VG	6	CI	0	1	17F0545-02
5/15/2017			Trinity	Catherdal	Providence	PGM	6	CI	0	1	17E0805-01
5/15/2017			Trinity	Catherdal	Providence	PGM	6	CI	0	1	17E0805-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
5/15/2017	G	30	Allens		Providence	PGM	12	bs	15	1	17E0795-01
5/16/2017		200	Wilson		East Providence	PGM	6	CI	40	10	17F0540-01
5/17/2017		96	Scott Rd.		Cumberland	VG	8	PL	0	1	17E1048-01
5/17/2017		96	Scott Rd.		Cumberland	VG	8	PL	0	1	17E1048-02
5/17/2017		4	Joslin	Mineral Spring St	North Providence	PGM	6	bs	0	1	17F0534-01
5/17/2017		4	Joslin	Mineral Spring St	North Providence	PGM	6	bs	0	1	17F0534-02
5/22/2017			Broad	Circuit	Cranston	PGM	6	PL	0	1	17F0535-01
5/22/2017			Broad	Circuit	Cranston	PGM	6	PL	0	1	17F0535-02
5/22/2017			Smith St	Chalkstone	Providence	PGM	6	CI	120	20	17F0539-01
5/22/2017			Smith St	Chalkstone	Providence	PGM	6	CI	53	20	17F0539-02
5/23/2017		2161	Minerial Spring	Joslin	North Providence	PGM	8	CI	150	20	17F0536-01
5/23/2017		2161	Minerial Spring	Joslin	North Providence	PGM	8	CI	81	10	17F0536-02
5/24/2017			Broad	Ocean	Cranston	PGM	6	PL	0	1	17F0538-01
5/24/2017			Broad	Ocean	Cranston	PGM	6	PL	0	1	17F0538-02
5/28/2017			Whiting	Cornell	Cranston	PGM	6	bs	4	2	17F0544-01
5/28/2017			Whiting	Cornell	Cranston	PGM	6	bs	2.4	1	17F0544-02
6/1/2017			Greenfield	Whiting	Cranston	PGM	6	bs	1.7	1	17F0537-01
6/1/2017			Greenfield	Whiting	Cranston	PGM	6	bs	2.1	1	17F0537-02
6/1/2017			Smith St	Orm	Providence	PGM	6	CI	30	10	17F0541-01
6/1/2017			Smith St	Orm	Providence	PGM	6	CI	43	10	17F0541-02
6/2/2017		273	Orms	Smith	Providence	PGM	6	CI	57	10	17F0542-01
6/2/2017		273	Orms	Smith	Providence	PGM	6	CI	120	20	17F0542-02
6/5/2017			Clark	Hewes	Cumberland	VG	6	CI	0	1	17F0543-01
6/5/2017			Clark	Hewes	Cumberland	VG	6	CI	0.27	1	17F0543-02
6/17/2017		177	Whiting	Bellvue	Cranston	PGM	6	CI	0	1	17F1751-01
6/17/2017		177	Whiting	Bellvue	Cranston	PGM	6	CI	0	1	17F1751-02
6/19/2017		431	Metacom Ave.	Chestnut	Bristol	BWG	6	bs	104	10	17F1749-01
6/19/2017		431	Metacom Ave.	Chestnut	Bristol	BWG	6	bs	300	40	17F1749-02
6/19/2017		1224	Narragansett Ave	Norwood	Cranston	PGM	6	CI	0.4	1	17F1753-01
6/19/2017		1224	Narragansett Ave	Norwood	Cranston	PGM	6	CI	0	1	17F1753-02
6/20/2017		473	Benefit	Alves	Providence	PGM	8	CI	4.3	1	17F1750-01
6/20/2017		473	Benefit	Alves	Providence	PGM	8	CI	0.38	1	17F1750-02
6/21/2017		234	President	Blackstone	Providence	PGM	6	CI	39	4	17F1754-01
6/21/2017		234	President	Blackstone	Providence	PGM	6	CI	22	2	17F1754-02
6/21/2017		111	Blackstone	President	Providence	PGM	6	CI	88	10	17F1756-01
6/21/2017		111	Blackstone	President	Providence	PGM	6	CI	160	20	17F1756-02
6/22/2017			Greenville	Hillside	Johnston	PGM	6	CI	1.05	1	17F1758-01
6/22/2017			Greenville	Hillside	Johnston	PGM	6	CI	2.82	2	17F1758-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
6/22/2017			Hamilton	Aldelaide	Providence	PGM	6	CI	3.9	2	17F1748-01
6/22/2017			Hamilton	Aldelaide	Providence	PGM	6	CI	5	2	17F1748-02
6/23/2017			Hamilton	Atlantic	Providence	PGM	6	PL	0	1	17F1752-01
6/23/2017			Hamilton	Atlantic	Providence	PGM	6	PL	0	1	17F1752-02
6/27/2017			Calverly	Smith	Providence	PGM	6	CI	62	10	17F1757-01
6/27/2017			Calverly	Smith	Providence	PGM	6	CI	27	4	17F1757-02
6/28/2017			Allens	Henderson	Providence	PGM	6	CI	4.5	1	17F1759-01
6/28/2017			Allens	Henderson	Providence	PGM	6	CI	1.2	1	17F1759-02
6/30/2017			Elwyn	Laurel Hill	Cranston	PGM	6	CI	20	2	17F1755-01
6/30/2017			Elwyn	Laurel Hill	Cranston	PGM	6	CI	27	4	17F1755-02
7/6/2017			Roger Williams	Pawtucket	East Providence	PGM	6	PL	0.26	1	17H0634-01
7/6/2017			Roger Williams	Pawtucket	East Providence	PGM	6	PL	1.1	1	17H0634-02
7/10/2017		70	Ferris Ave.	Bishop St.	East Providence	PGM	6	CI	34	4	17H0628-01
7/10/2017		70	Ferris Ave.	Bishop St.	East Providence	PGM	6	CI	38	4	17H0628-02
7/11/2017		511	Metacom	Chestnut	Bristol	BWG	6	bs	0.38	0.2	17H0635-01
7/11/2017		511	Metacom	Chestnut	Bristol	BWG	6	bs	0.27	0.2	17H0635-02
7/12/2017			Miller	Pleasant	East Providence	PGM	6	CI	9.5	1	17H0636-01
7/12/2017			Miller	Pleasant	East Providence	PGM	6	CI	2	1	17H0636-02
7/14/2017		511	Metacom	Bristol	Bristol	BWG	6	bs	0.54	1	17H0632-01
7/14/2017		511	Metacom	Bristol	Bristol	BWG	6	bs	0.77	1	17H0632-02
7/18/2017		122	Bishop	Pavilion Ave	East Providence	PGM	6	CI	230	20	17H0627-01
7/18/2017		122	Bishop	Pavilion Ave	East Providence	PGM	6	CI	30	4	17H0627-02
7/19/2017			Pavillion	Bishop St.	East Providence	PGM	6	CI	2	1	17H0629-01
7/19/2017			Pavillion	Bishop St.	East Providence	PGM	6	CI	0.62	1	17H0629-02
7/19/2017			New	Coyle	East Providence	PGM	12	bs	54	4	17H0634-01
7/19/2017			New	Coyle	East Providence	PGM	12	bs	32	4	17H0634-02
7/21/2017			Park View Blvd	Park Ave	Cranston	PGM	6	CI	1.6	1	17H02626-01
7/21/2017			Park View Blvd	Park Ave	Cranston	PGM	6	CI	7.5	1	17H02626-02
7/21/2017		260	Pawtucket Ave	Roger William	East Providence	PGM	6	PL	2.9	1	17H0638-01
7/21/2017		260	Pawtucket Ave	Roger William	East Providence	PGM	6	PL	6	1	17H0638-02
7/26/2017			Broad	Kneeland	Cranston	PGM	6	CI	0	1	17H0637-01
7/26/2017			Broad	Kneeland	Cranston	PGM	6	CI	0	1	17H0637-02
7/28/2017		60	Rhodes Place		Cranston	PGM	6	PL	0	1	17H0631-01
7/28/2017		60	Rhodes Place		Cranston	PGM	6	PL	0	1	17H0631-02
7/31/2017		996	Smith St	Nelson	Providence	PGM	6	CI	2.1	1	17H0633-01
7/31/2017		996	Smith St	Nelson	Providence	PGM	6	CI	0.97	1	17H0633-02
8/7/2017		77	Ferris Ave.	Bishop St.	East Providence	PGM	6	CI	0	1	17H0630-01
8/7/2017		77	Ferris Ave.	Bishop St.	East Providence	PGM	6	CI	0.27	1	17H0630-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
8/8/2017		71	Betsy williams Ave		Providence	PGM	6	CI	0	1	17H0625-01
8/8/2017		48	Washington	Brook	Barrington	PGM	6	PL	1	1	17H0639-01
8/8/2017		48	Washington	Brook	Barrington	PGM	6	PL	0.41	0.2	17H0639-02
8/9/2017		71	Roger Williams	Wilson	East Providence	PGM	6	CI	37	4	17H0640-01
8/9/2017		71	Roger Williams	Wilson	East Providence	PGM	6	CI	6.8	1	17H0640-02
8/10/2017		231	S. Main St		Providence	PGM	12	CI	35	4	17H0641-01
8/10/2017		231	S. Main St		Providence	PGM	12	CI	7.5	1	17H0641-02
8/10/2017		14	Lakeside		Cranston	PGM	6	CI	0.89	0.2	17H0643-01
8/10/2017		14	Lakeside		Cranston	PGM	6	CI	0.32	0.2	17H0643-02
8/10/2017			Charles	Minerial Spring	North Providence	PGM	6	CI	0.23	0.2	17H0642-01
8/10/2017			Charles	Minerial Spring	North Providence	PGM	6	CI	0.21	0.2	17H0642-02
9/7/2017			Clay	Broad	Central Falls	VG	6	CI	0.49	1	17J1303-01
9/7/2017			Clay	Broad	Central Falls	VG	6	CI	0.37	1	17J1303-02
9/7/2017			Clay	Broad	Central Falls	VG	6	PL	0.49	1	17J1303-01
9/7/2017			Clay	Broad	Central Falls	VG	6	PL	0.49	1	17J1303-02
9/11/2017			Hunt Mills	Pleasant	East Providence	PGM	6	PL	0	1	17J1307-01
9/11/2017			Hunt Mills	Pleasant	East Providence	PGM	6	PL	0	1	17J1307-02
9/12/2017			Woodbine	Sabin	Pawtucket	VG	6	CI	0.42	1	17J1300-01
9/12/2017			Woodbine	Sabin	Pawtucket	VG	6	CI	1.1	1	17J1300-02
9/16/2017		103	Cactus	Hollow Ridge	East Providence	PGM	6	CI	240	60	17J1310-01
9/16/2017		103	Cactus	Hollow Ridge	East Providence	PGM	6	CI	36	20	17J1310-02
9/18/2017			Barney	Newman	East Providence	PGM	6	CI	73	10	17J1308-01
9/18/2017			Barney	Newman	East Providence	PGM	6	CI	19	4	17J1308-02
9/20/2017		123	Onley	Homewood	North Providence	PGM	6	CI	0.41	1	17J1295-01
9/20/2017		123	Onley	Homewood	North Providence	PGM	6	CI	0.68	1	17J1295-02
9/22/2017			Elmwood Ave	P&W RR bridge	Providence	PGM	6	PL	0	1	17J1305-01
9/22/2017			Elmwood Ave	P&W RR bridge	Providence	PGM	6	PL	0	1	17J1305-02
9/22/2017			Elmwood Ave	Lincoln	Warwick	PGM	6	PL	0.27	1	17J1306-01
9/22/2017			Elmwood Ave	Lincoln	Warwick	PGM	6	PL	0	1	17J1306-02
9/26/2017		76	Beach	Wells	Westerly	SCG	6	bs	0	1	17J1302-01
9/26/2017		76	Beach	Wells	Westerly	SCG	6	bs	0	1	17J1302-02
9/27/2017		89	First	Juniper	East Providence	PGM	6	CI	4.5	1	17J1289-01
9/27/2017		89	First	Juniper	East Providence	PGM	6	CI	2.3	1	17J1289-02
9/28/2017			Barrett	Elliot	North Providence	PGM	6	CI	1.3	1	17J1296-01
9/29/2017			Barett	Elliot	North Providence	PGM	6	PL	1.3	1	17J1296-01
10/4/2017		361	Charles	Admiral	Providence	PGM	16	bs	4300	800	17J1292-01
10/4/2017		361	Charles	Admiral	Providence	PGM	16	bs	17000	4000	17J1292-02
10/6/2017			Burgess	Mauran	East Providence		12	PL	0	1	17J1291-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
10/6/2017			Burgess	Mauran	East Providence		12	PL	0	1	17J1291-02
10/10/2017	G	27	Dey St		East Providence	PGM	12	CI	1	1	17J1294-01
10/10/2017	G	27	Dey St		East Providence	PGM	12	CI	1.2	1	17J1294-02
10/11/2017		2141	Elmwood Ave	Post	Warwick	PGM	6	PL	0.99	1	17J1293-01
10/11/2017		2141	Elmwood Ave	Post	Warwick	PGM	6	PL	0.25	1	17J1293-02
10/12/2017		80	Cactus	Homer	East Providence	PGM	6	PL	0	1	17J1295-01
10/12/2017		80	Cactus	Homer	East Providence	PGM	6	PL	0	1	17J1295-02
10/13/2017			Magnolia	Belmart	Cranston	PGM	6	CI	0	1	17J1304-01
10/13/2017			Magnolia	Belmart	Cranston	PGM	6	CI	0	1	17J1304-02
10/16/2017			Evangeline	Magnolia	Cranston	PGM	6	PL	0	1	17J1301-01
10/16/2017			Evangeline	Magnolia	Cranston	PGM	6	PL	0	1	17J1301-02
10/17/2017		130	Greenville	King	Warwick	PGM	8	bs	10.3	1	17J1297-01
10/17/2017		130	Greenville	King	Warwick	PGM	8	bs	5.9	1	17J1297-02
10/18/2017		591	Pleasant Valley Parkway	Justice	Providence	PGM	6	CI	250	40	17J1309-01
10/18/2017		591	Pleasant Valley Parkway	Justice	Providence	PGM	6	CI	430	80	17J1309-02
10/26/2017		1204	Elmwood Ave	Sawyer	Providence	PGM	6	CI	0.21	1	17K0987-01
10/26/2017		1204	Elmwood Ave	Sawyer	Providence	PGM	6	CI	0.38	1	17K0987-02
10/30/2017			Eddy	Oxford	Providence	PGM	6	PL	0	1	17K0991-01
10/30/2017			Eddy	Oxford	Providence	PGM	6	PL	0	1	17K0991-02
11/1/2017		20	Dixon	Stamford	Providence	PGM	6	PL	0	1	17K0988-01
11/1/2017		20	Dixon	Stamford	Providence	PGM	6	PL	0	1	17K0988-02
11/2/2017			Hamlin	Stamford	Providence	PGM	6	PL	0	1	17K0990-01
11/2/2017			Hamlin	Stamford	Providence	PGM	6	PL	0	1	17K0990-02
11/3/2017			Roosevelt	Middle	Pawtucket	VG	6	CI	0.21	1	17K0985-01
11/3/2017			Roosevelt	Middle	Pawtucket	VG	6	CI	0	1	17K0985-02
11/4/2017			Milton	Washington	Warren	BWG	6	PL	1.9	1	17K0933-01
11/4/2017			Milton	Washington	Warren	BWG	6	PL	1.6	1	17K0933-02
11/4/2017		155	Waterman	James	East Providence	PGM	6	PL	5.1	5	17K0992-01
11/4/2017		155	Waterman	James	East Providence	PGM	6	PL	19	10	17K0992-02
11/6/2017			Clay	Hawes	Central Falls	VG	6	PL	0	1	17K0988-01
11/6/2017			Clay	Hawes	Central Falls	VG	6	PL	0	1	17K0988-02
11/8/2017		381	Princess	Bracken	Cranston	PGM	6	CI	0.97	1	17K0995-01
11/8/2017		381	Princess	Bracken	Cranston	PGM	6	CI	13	6	17K0995-02
11/9/2017		381	Bracken	Princess	Cranston	PGM	6	PL	0	1	17K0996-01
11/9/2017		381	Bracken	Princess	Cranston	PGM	6	PL	0	1	17K0996-02
11/13/2017		360	Bradford	S. Main	Westerly	SCG	6	PL	1	1	17K1003-01
11/13/2017		360	Bradford	S. Main	Westerly	SCG	6	PL	0.55	1	17K1003-02
11/13/2017			Middle	Roblew	Pawtucket	VG	6	CI	0.59	1	17K0997-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
11/13/2017			Middle	Roblew	Pawtucket	VG	6	CI	0.96	1	17K0997-02
11/15/2017			Llander	Cobble Hill	Lincoln	VG	6	PL	0	1	17K0986-01
11/15/2017			Llander	Cobble Hill	Lincoln	VG	6	PL	0	1	17K0986-02
11/15/2017			Newport	Saratoga	Pawtucket	VG	6	CI	1.2	1	17K0989-01
11/15/2017			Newport	Saratoga	Pawtucket	VG	6	CI	1.4	1	17K0989-02
11/7/2017		70	Bennett	Whalen	Cranston	PGM	6	PL	0	1	17K0994-01
11/7/2017		70	Bennett	Whalen	Cranston	PGM	6	PL	0	1	17K0994-02
11/8/2017		146	Woody Hill Rd	Bradford	Westerly	SCG	6	PL	1.4	1	17K0999-01
11/8/2017		146	Woody Hill Rd	Bradford	Westerly	SCG	6	PL	2	1	17K0999-02
11/7/2017		109	Westerly-Bradford		Westerly	SCG	6	PL	0.67	1	17K1001-01
11/7/2017		109	Westerly-Bradford		Westerly	SCG	6	PL	0.53	1	17K1001-02
10/31/2017		642	Allens		Providence	PGM	10	bs	25	1	17K1000-01
10/31/2017		642	Allens		Providence	PGM	10	bs	100	1	17K1000-02
10/31/2017		14	Thurston	Stamford	Providence	PGM	6	PL	0	1	17K1002-01
10/31/2017		14	Thurston	Stamford	Providence	PGM	6	PL	0	1	17K1002-02
11/1/2017			Commonwealth	Centerville	Warwick	PGM	6	WS	2.8	2	17K1007-01
11/2/2017			Gardens	Laurens	Cranston	PGM	6	BS	7	2	17K1004-01
11/3/2017			Gardens	Laurens	Cranston	PGM	6	CI	4.3	2	17K1004-02
9/6/2017		27	Sabin	Cottage	Pawtucket	VG	6	CI	3.8	1	17L1060-01
9/6/2017		27	Sabin	Cottage	Pawtucket	VG	6	CI	4.6	1	17L1060-02
7/20/2017			Main	Moshassuck	Pawtucket	VG	12	CI	0	1	17L1059-01
7/20/2017			Main	Moshassuck	Pawtucket	VG	12	CI	0	1	17L1059-02
8/9/2017			Linden	Central	Pawtucket	VG	6	CI	0.7	1	17L1069-01
8/9/2017			Linden	Central	Pawtucket	VG	6	CI	0.45	1	17L1069-02
12/26/2017			Robinson	Newport	Pawtucket	VG	12	CI	3	2	17L1066-01
12/27/2017			Robinson	Newport	Pawtucket	VG	12	CI	6.3	4	17L1066-02
8/24/2017		45	Whitman	Sterry	Pawtucket	VG	4	CI	0	1	17L1067-01
8/24/2017		45	Whitman	Sterry	Pawtucket	VG	4	CI	0	1	17L1067-02
10/23/2017		1137	Newport	Robinson	Pawtucket		12	CI	1.3	1	17L1068-01
10/23/2017		1137	Newport	Robinson	Pawtucket		12	CI	0.38	1	17L1068-02
10/3/2017			Gillen	Charles	North Providence	PGM	6	CI	0	1	17L1064-01
10/3/2017			Gillen	Charles	North Providence	PGM	6	CI	0.22	1	17L1064-02
10/19/2017			Woodland	Smithfield	Lincoln	VG	6	CI	0.66	1	17L1062-01
10/19/2017			Woodland	Smithfield	Lincoln	VG	6	CI	0.64	1	17L1062-02
8/8/2017			Main	Utton	Pawtucket	VG	6	CI	0.56	1	17L1063-01
8/8/2017			Main	Utton	Pawtucket	VG	6	CI	0.56	1	17L1063-02
6/30/2017			Beverage Hill	Kenmore	Pawtucket	VG	6	CI	0.22	1	17L1064-01
6/30/2017			Beverage Hill	Kenmore	Pawtucket	VG	6	CI	0.22	1	17L1064-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
8/30/2017			Chapel	Smithfield	Lincoln	VG	6	CI	0.31	1	17L1065-01
8/30/2017			Chapel	Smithfield	Lincoln	VG	6	CI	0.24	1	17L1065-02
11/16/2017			Newport	Hasbro	Pawtucket	VG	6	CI	0.37	1	18A0206-01
11/16/2017			Newport	Hasbro	Pawtucket	VG	6	CI	0.43	1	18A0206-02
12/6/2017			Fenwood	Lincoln	Smithfield	PGM	6	CI	7.2	5	18A0212-01
11/21/2017		410	Westerly Bradford Road		Westerly	SCG	6	PL	10	5	18A0216-01
11/21/2017		410	Westerly Bradford Road		Westerly	SCG	6	PL	8.1	5	18A0216-02
12/4/2017			Newport	Armistice	Pawtucket	VG	6	CI	1.7	1	18A0201-01
12/4/2017			Newport	Armistice	Pawtucket	VG	6	CI	1.5	1	18A0201-02
11/20/2017			Puller	Newport	Pawtucket	VG	6	CI	0.4	1	18A0203-01
11/20/2017			Puller	Newport	Pawtucket	VG	6	CI	1.1	1	18A0203-02
12/15/2017		46	McKinley	Elmwood	Providence	PGM	6	PL	0	1	18A0217-01
12/15/2017		46	McKinley	Elmwood	Providence	PGM	6	PL	0	1	18A0217-02
12/15/2017			Sabin	Broadway	Pawtucket	VG	6	CI	0	1	18A0215-01
12/15/2017			Sabin	Broadway	Pawtucket	VG	6	CI	0	1	18A0215-02
12/7/2017			Main St. Bridge	Bike Path	Warren	BWG	8	PL	0	1	18A0213-01
12/7/2017			Main St. Bridge	Bike Path	Warren	BWG	8	PL	0	1	18A0213-02
12/19/2017		61	Pleasant St	Windmill Lane	East Providence	PGM	6	PL	0.24	1	18A0211-01
12/19/2017		61	Pleasant St	Windmill Lane	East Providence	PGM	6	PL	0.35	1	18A0211-02
12/17/2017			Elmwood Ave	McKinley	Providence	PGM	6	PL	0	1	18A0207-01
12/17/2017			Elmwood Ave	McKinley	Providence	PGM	6	PL	0	1	18A0207-02
12/12/2017		763	Westminster		Providence	PGM	12	CI	19	10	18A0204-01
12/15/2017		1	Plympton		Providence	PGM	6	bs	0.96	1	18A0218-01
12/7/2017			Moore	Dexter	Central Falls	VG	6	CI	0.63	1	18A0208-01
12/7/2017			Moore	Dexter	Central Falls	VG	6	CI	0.43	1	18A0208-02
12/11/2017		210	Pleasant	Miller	East Providence	PGM	6	CI	12	5	18A0205-01
12/11/2017		210	Pleasant	Miller	East Providence	PGM	6	CI	19	10	18A0205-02
11/28/2017			Mills	Prospect	Cumberland	VG	6	CI	0	1	18A0290-01
11/29/2017			Mills	Prospect	Cumberland	VG	6	CI	0	1	18A0290-02
12/4/2017			Gilliam	Florence	Newport	NG	6	CI	0	1	18A0202-01
12/4/2017			Gilliam	Florence	Newport	NG	6	CI	0		18A0202-02
11/20/2017			Orchard	Laurens	Cranston	PGM	6	CI	0	1	18A0200-01
11/20/2017			Orchard	Laurens	Cranston	PGM	6	CI	0	1	18A0200-02
11/27/2017			Broad		Westerly	SCG	6	CI	3.2	5	18A0220-01
11/27/2017			Broad		Westerly	SCG	8	CI	26	20	18A0219-01
12/4/2017		625	Mt. Pleasant		Providence	PGM	6	CI	55	50	18A0214-01
11/30/2017			Lincoln	Borah	North Providence	PGM	6	PL	0	1	18A0210-01
11/30/2017			Lincoln	Borah	North Providence	PGM	6	PL	0	1	18A0210-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
3/12/2018		18	Oxford	Kensington	Providence	PGM	6	PL	0.8	1	18D0439-01
3/12/2018		18	Oxford	Kensington	Providence	PGM	6	PL	0.67	1	18D0439-02
2/20/2018			Beacon	Cottage	Pawtucket	VG	6	CI	1.1	1	18D0456-01
2/20/2018			Beacon	Cottage	Pawtucket	VG	6	CI	1.1	1	18D0456-02
2/21/2018		75	Nimitz	Patton	East Providence	PGM	6	bs	0	1	18D0465-01
2/21/2018		75	Nimitz	Patton	East Providence	PGM	6	bs	0	1	18D0465-02
2/15/2018		5	Forbes	Willet	East Providence	PGM	6	bs	1.7	1	18D0450-01
2/15/2018		5	Forbes	Willet	East Providence	PGM	6	bs	1.3	1	18D0450-02
2/16/2018			Newport	Armistice Blvd	Pawtucket	VG	6	CI	0.8	1	18D0477-01
2/16/2018			Newport	Armistice Blvd	Pawtucket	VG	6	CI	2.3	1	18D0477-02
2/22/2018			Newport	Pioneer	East Providence	PGM	6	CI	49	10	18D0620-01
2/22/2018			Newport	Pioneer	East Providence	PGM	6	CI	12	10	18D0620-02
3/24/2018		151	Pleasant	Morra	East Providence	PGM	6	PL	0	1	18D0617-01
3/24/2018		151	Pleasant	Morra	East Providence	PGM	6	PL	0.58	1	18D0617-02
3/20/2018			Pleasant	Bridgeham Farm	East Providence	PGM	6	bs	6.2	5	18D0491-01
4/9/2018		162	Lyon Ave	Juniper	East Providence	PGM	6	PL	0	1	18D0487-01
4/9/2018		163	Lyon Ave	Juniper	East Providence	PGM	6	PL	0	1	18D0487-02
3/9/2018			Minoru	Waterman Ave	Smithfield	PGM	6	CI	10	5	18D0444-01
3/9/2018			Minoru	Waterman Ave	Smithfield	PGM	6	CI	6.4	5	18D0444-02
3/2/2018		5	Maple		Smithfield	PGM	6	CI	140	50	18D0453-01
3/2/2018		5	Maple		Smithfield	PGM	6	CI	85	50	18D0453-02
4/10/2018		1220	Pawtucket Ave	Newman	East Providence	PGM	6	CI	32	12	18D0448-01
4/10/2018		1220	Pawtucket Ave	Newman	East Providence	PGM	6	CI	60	40	18D0448-02
3/20/2018		92	William	John	East Providence	PGM	6	PL	0.89	1	18D0454-01
3/20/2018		92	William	John	East Providence	PGM	6	PL	0.89	1	18D0454-02
2/12/2018			Oxford	Brunswick	East Providence	PGM	6	CI	34	12	18D0459-01
3/15/2018			James	Waterman Ave	East Providence	PGM	6	CI	5.8	5	18D0469-01
3/15/2018			James	Waterman Ave	East Providence	PGM	6	CI	7.6	5	18D0469-02
3/18/2018			Newport	Waterman	Pawtucket	VG	8	CI	0	1	18D0462-01
3/18/2018			Newport	Waterman	Pawtucket	VG	8	CI	0	1	18D0462-02
4/4/2018			Alice	Taunton	East Providence	PGM	6	CI	10	5	18D0482-01
4/4/2018			Alice	Taunton	East Providence	PGM	6	CI	8.6	5	18D0482-02
3/27/2018		325	Bullocks	Shore	East Providence	PGM	6	CI	0	1	18D00490-01
3/27/2018		325	Bullocks	Shore	East Providence	PGM	6	CI	0	1	18D0490-02
2/14/2018		73	Martha	Taylor	East Providence	PGM	6	bs	11	5	18D0488-01
3/20/2018			Magnolia	Clarence	Cranston	PGM	6	PL	0	1	18D0484-01
3/20/2018			Magnolia	Clarence	Cranston	PGM	6	PL	0	1	18D0484-02
2/8/2018			Roger William	Thatcher	East Providence	PGM	6	CI	23	8	18D0475-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
2/22/2018		254	Waterman	Gladstone	Smithfield	PGM	6	CI	5.3	5	18D0480-01
2/22/2018		254	Waterman	Gladstone	Smithfield	PGM	6	CI	9.3	5	18D0480-02
5/15/2018			Dillabur	Roger Williams	North Kingstown	PGM	6	ws	1.1	4	1085472-01
5/15/2018			Dillabur	Roger Williams	North Kingstown	PGM	6	ws	0	4	1085472-02
5/15/2018			Dillabur	Roger Williams	North Kingstown	PGM	6	ws	0	4	1805472-01
5/15/2018			Dillabur	Roger Williams	North Kingstown	PGM	6	ws	0	4	1805472-03
5/1/2018			Greenwood	Chaffee	East Providence	PGM	6	CI	320	40	18E0670-01
5/1/2018			Greenwood	Chaffee	East Providence	PGM	6	CI	180	20	18E0670-02
4/24/2018			Larch	Mauran	East Providence	PGM	6	CI	13	6	18E0677-01
4/24/2018			Larch	Mauran	East Providence	PGM	6	CI	14	6	18E0677-02
4/12/2018			veterans Memorial Parkway	Bike Path	East Providence	PGM	12	ws	80	16	18E0672-01
4/12/2018			veterans Memorial Parkway	Bike Path	East Providence	PGM	12	ws	131	16	18E0672-02
5/7/2018		835	Mauran	Berkley	East Providence	PGM	6	ws	2.3	1	18E0669-01
5/7/2018		835	Mauran	Berkley	East Providence	PGM	6	ws	3.1	2	18E0669-02
4/24/2018			Arlington	Mauran	East Providence	PGM	6	CI	5.9	2	18E0671-01
4/24/2018			Arlington	Mauran	East Providence	PGM	6	CI	4.5	2	18E0671-02
4/18/2018			Mauran	Arlington	East Providence	PGM	6	CI	0.88	0.8	18E0673-01
4/18/2018			Mauran	Arlington	East Providence	PGM	6	CI	1.7	0.8	18E0673-02
5/7/2018			Betsy williams Ave	Broad	Providence	PGM	6	CI	67	40	18E0676-01
5/7/2018			Betsy williams Ave	Broad	Providence	PGM	6	CI	77	40	18E0676-02
4/12/2018			Central	Downes	Pawtucket	VG	6	CI	0.53	0.4	18E0675-01
4/12/2018			Central	Downes	Pawtucket	VG	6	CI	4.9	3	18E0675-02
4/27/2018			Evergreen	Newport	Pawtucket	VG	6	CI	0	0.6	18E0674-01
4/27/2018			Evergreen	Newport	Pawtucket	VG	6	CI	0.31	0.6	18E0674-02
4/30/2018			East	George	Pawtucket	VG	6	CI	0	0.6	18E0652-01
4/30/2018			East	George	Pawtucket	VG	6	CI	0.65	0.6	18E0652-02
5/9/2018			Blackmore	Pontiac	Cranston	PGM	6	CI	3.8	4	18E0654-01
5/9/2018			Blackmore	Pontiac	Cranston	PGM	6	CI	5.6	4	18E0654-02
4/26/2018			Main St. Bridge		Cranston	PGM	8	PL	0.7	0.4	18E0653-01
4/26/2018			Main St. Bridge		Cranston	PGM	8	PL	0.61	0.4	18E0653-02
4/23/2018			Kenton	Pleasant	East Providence	PGM	6	CI	650	200	18E0655-01
4/23/2018			Kenton	Pleasant	East Providence	PGM	6	CI	330	120	18E0655-02
5/11/2018			James St	Central	East Providence	PGM	6	CI	35	32	18E0656-01
5/11/2018			James St	Central	East Providence	PGM	6	CI	32	32	18E0656-02
4/12/2018			Charles	Admiral	Providence	PGM	16	CI	290	100	18E0651-01
4/12/2018			Charles	Admiral	Providence	PGM	16	CI	510	200	18E0651-02
4/18/2018			veterans Memorial Parkway	Bently	East Providence	PGM	12	ws	28	16	18E0657-01
4/18/2018			veterans Memorial Parkway	Bently	East Providence	PGM	12	ws	32	16	18E0657-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
4/24/2018		59	Hope	Sheldon	Providence	PGM	6	CI	0	1	18E0667-01
4/24/2018		59	Hope	Sheldon	Providence	PGM	6	CI	1.5	1	18E0667-02
4/11/2018			Downes	Central	Pawtucket	VG	6	CI	0	1	18E0668-01
4/11/2018			Downes	Central	Pawtucket	VG	6	CI	0.63	1	18E0668-02
4/23/2018			Patt	East	Pawtucket	VG	6	CI	0	1	18E0666-01
4/23/2018			Patt	East	Pawtucket	VG	6	CI	0	1	18E0666-02
5/29/2018			Chaffee	Greenwood	East Providence	PGM	6	PL	0.98	1	18F0044-01
5/29/2018			Chaffee	Greenwood	East Providence	PGM	6	PL	0.32	1	18F0044-02
4/16/2018			Eccleston		North Kingstown	PGM	6	ws	1.11	1	18F0041-01
4/16/2018			Eccleston		North Kingstown	PGM	6	ws	1.11	1	18F0041-02
5/22/2018		150	Benefit	South Court	Providence	PGM	12	CI	0	1	18F0040-01
5/22/2018		150	Benefit	South Court	Providence	PGM	12	CI	0	1	18F0040-02
5/29/2018		131	Acadamy Ave	Wisdom	Providence	PGM	6	CI	830	500	18F00378-01
5/29/2018		131	Acadamy Ave	Wisdom	Providence	PGM	6	CI	120	500	18F00378-02
5/11/2018			Pleasant St	Miller Ave	East Providence	PGM	6	CI	0	1	18F0046-01
5/11/2018			Pleasant St	Miller Ave	East Providence	PGM	6	CI	0	1	18F0046-02
5/14/2018		630	Dyer	Casino	Cranston	PGM	6	CI	150	120	18F0039-01
5/14/2018		630	Dyer	Casino	Cranston	PGM	6	CI	240	120	18F0039-02
5/14/2018		630	Dyer	Casino	Cranston	PGM	6	CI	330	120	18F0039-03
5/14/2018		630	Dyer	Casino	Cranston	PGM	6	CI	420	120	18F0039-04
7/20/2018			Newport	Gates	Pawtucket	VG	6	CI	0.72	1	18H0552-01
7/20/2018			Newport	Gates	Pawtucket	VG	6	CI	0	1	18H0552-02
6/6/2018			C	Phenix	Cranston	PGM	12	CI	45	40	18H0553-01
6/6/2018			C	Phenix	Cranston	PGM	12	CI	56	40	18H0553-02
7/27/2018			Marne	Borden	Johnston	PGM	6	PL	0	1	18H0524-01
7/27/2018			Marne	Borden	Johnston	PGM	6	PL	0	1	18H0524-02
7/31/2018			Laurel	Park St	Pawtucket	VG	6	CI	0.52	1	18H0525-01
7/31/2018			Laurel	Park St	Pawtucket	VG	6	CI	0.77	1	18H0525-02
7/19/2018		903	Harris Ave		Providence	PGM	12	CI	83	80	18H0527-01
7/19/2018		903	Harris Ave		Providence	PGM	12	CI	81	20	18H0527-02
7/16/2018			Austin	Massasoit	East Providence	PGM	6	CI	73	80	18H0528-01
7/16/2018			Austin	Massasoit	East Providence	PGM	6	CI	350	40	18H0528-02
7/24/2018		424	Hope	Howell	Providence	PGM	12	CI	110	40	18H0529-01
7/24/2018		424	Hope	Howell	Providence	PGM	12	CI	45	20	18H0529-02
7/17/2018			Dewey	Campbell	Pawtucket	VG	6	ci	3.8	4	18H0530-01
7/17/2018			Dewey	Campbell	Pawtucket	VG	6	ci	4.4	4	18H0530-02
7/30/2018		43	Greenway	Fordson	Cranston	PGM	6	CI	0	4	18H0531-01
7/30/2018		43	Greenway	Fordson	Cranston	PGM	6	CI	0	16	18H0531-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
8/9/2018			Broadway	Laurel	Pawtucket	VG	6	CI	0	1	18H0532-01
8/9/2018			Broadway	Laurel	Pawtucket	VG	6	CI	0	1	18H0532-02
6/12/2018		325	Providence	Tollgate	Warwick	PGM	8	bs	8.1	4	18H0536-01
6/12/2018		325	Providence	Tollgate	Warwick	PGM	8	bs	6.2	4	18H0536-02
7/24/2018			Dorman	Atwood	North Providence	PGM	6	CI	0	1	18H0539-01
7/24/2018			Dorman	Atwood	North Providence	PGM	6	CI	0	1	18H0539-02
6/5/2018			Travers	Killingly	Johnston	PGM	4	CI	0	1	18H0541-01
6/5/2018			Travers	Killingly	Johnston	PGM	6	PL	1.08	1	18H0541-02
8/9/2018			Tiffany	Lexington	North Providence	PGM	6	BS	4.1	4	18H0542-01
8/9/2018			Tiffany	Lexington	North Providence	PGM	6	BS	1.6	1	18H0542-02
6/6/2018			Riverview	Prospect	Pawtucket	VG	6	CI	12	8	18H0559-01
6/6/2018			Riverview	Prospect	Pawtucket	VG	6	CI	6.5	5	18H0559-02
8/10/2018			Austin	North Broadway	East Providence	PGM	6	CI	89	40	18H0545-01
8/10/2018			Austin	North Broadway	East Providence	PGM	6	CI	50	20	18H0545-02
6/8/2018		8	Greenwood		East Providence	PGM	6	CI	37	16	18H0546-01
6/8/2018		8	Greenwood		East Providence	PGM	6	CI	140	80	18H0546-02
8/9/2018			Newport	Federal	Pawtucket	VG	6	CI	0.81	1	18H0556-01
8/9/2018			Newport	Federal	Pawtucket	VG	6	CI	1.7	1	18H0556-02
8/10/2018			Hemond	Fourier	Woonsocket	VG	6	CI	0	1	18H0547-01
8/10/2018			Hemond	Fourier	Woonsocket	VG	6	CI	0	1	18H0547-02
6/5/2018			Riverview	School	Pawtucket	VG	6	CI	0.44	1	18H0548-01
6/5/2018			Riverview	School	Pawtucket	VG	6	CI	0.27	1	18H0548-02
7/30/2018			Bishop	Pavillion	East Providence	PGM	6	PL	0	1	18H0551-01
7/30/2018			Bishop	Pavillion	East Providence	PGM	6	PL	0	1	18H0551-02
8/7/2018			Gallatin	Elmwood	Providence	PGM	6	CI	8.3	4	18H0552-01
8/7/2018			Gallatin	Elmwood	Providence	PGM	6	CI	8.3	4	18H0552-02
7/31/2018		660	Killingly	Traver	Johnston	PGM	16	CI	170	80	18H0555-01
7/31/2018		660	Killingly	Traver	Johnston	PGM	16	CI	16	8	18H0555-02
8/1/2018			Eagle	Woodview	Cranston	PGM	6	bs	0.82	1	18H0537-01
8/1/2018			Eagle	Woodview	Cranston	PGM	6	bs	7.8	1	18H0537-02
8/7/2018		30	Cole	E	Bristol	BWG	6	CI	7.1	4	18H0526-01
8/7/2018		30	Cole	E	Bristol	BWG	6	CI	5.9	4	18H0526-02
8/24/2018			Central	Kenmore	Pawtucket	VG	6	CI	0.26	1	18I0047-01
8/24/2018			Central	Kenmore	Pawtucket	VG	6	CI	0	1	18I0047-02
8/20/2018			Greenville	Spring Hill	Johnston	PGM	6	bs	0	1	18I0046-01
8/20/2018			Greenville	Spring Hill	Johnston	PGM	6	bs	0	1	18I0046-02
8/31/2018			East Knowlton	Bullocks Point Road	East Providence	PGM	6	CI	5.8	4	18I0041-01
8/31/2018			East Knowlton	Bullocks Point Road	East Providence	PGM	6	CI	1.1	1	18I0041-02

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
7/26/2018			Dunhill	Magill	Pawtucket	VG	6	CI	1.2	1	18I0037-01
7/26/2018			Dunhill	Magill	Pawtucket	VG	6	CI	1.6	1	18I0037-02
8/25/2018		1264	Douglas	Cushing	North Providence	PGM	6	CI	67	40	18I0038-01
8/26/2018		1264	Douglas	Cushing	North Providence	PGM	6	CI	44	32	18I0038-02
8/27/2018			Cottage	Kenyon	Pawtucket	VG	6	CI	0.75	1	18I0039-01
8/27/2018			Cottage	Kenyon	Pawtucket	VG	6	CI	0.75	1	18I0039-02
8/22/2018			A	Cranston	Cranston	PGM	6	CI	7.8	5	18I0040-01
8/23/2018			A	Cranston	Cranston	PGM	6	CI	15	10	18I0040-02
8/20/2018		1801	Cranston	Vervena	Cranston	PGM	6	ci	11	5	18I0042-01
8/20/2018		1801	Cranston	Vervena	Cranston	PGM	6	ci	17	1	18I0042-02
8/7/2018			Charles	Carovilli	North Providence	PGM	6	CI	2.1	1	18I0044-01
8/7/2018			Charles	Carovilli	North Providence	PGM	6	CI	1	1	18I0044-02
8/16/2017			7 Fort		East Providence	PGM	6	CI	8.9	5	18I0045-01
8/16/2017			7 Fort		East Providence	PGM	6	CI	15	2	18I0045-02
8/23/2018			Adelaide	Hamilton	Providence	PGM	12	CI	0	160	18I0043-01
8/23/2018			Adelaide	Hamilton	Providence	PGM	12	CI	0	160	18I0043-02
9/5/2018		859	North Main	Grandview	Providence	PGM	6	CI	280	160	18J0046-001
9/5/2018		859	North Main	Grandview	Providence	PGM	6	CI	65	40	18J0046-002
9/27/2018		27.5	City View Parkway	Niverville	Johnston	PGM	6	PL	0	1	18J0047-01
9/27/2018		27.5	City View Parkway	Niverville	Johnston	PGM	6	PL	0	1	18J0047-02
8/31/2018		266	Smith St.	Caverly	Providence	PGM	6	CI	32	16	18J0048-01
8/31/2018		266	Smith St.	Caverly	Providence	PGM	6	CI	60	40	18J0048-02
9/4/2018		859	North Main	Grandview	Providence	PGM	6	CI	21	8	18J0049-01
9/4/2018		859	North Main	Grandview	Providence	PGM	6	CI	80	40	18J0049-02
9/17/2018			Hartford	Dale	Johnston	PGM	6	CI	4.5	4	18J0050-01
9/17/2018			Hartford	Dale	Johnston	PGM	6	CI	1.6	0.8	18J0050-02
9/13/2018		54	Villa	Tiffany	North Providence	PGM	6	PL	0.71	0.8	18J0051-01
9/13/2018		54	Villa	Tiffany	North Providence	PGM	6	PL	0.23	0.8	18J0051-02
9/5/2018		7	Esmond		Smithfield	PGM	6	CI	2.4	0.8	18J0052-01
9/5/2018		7	Esmond		Smithfield	PGM	6	CI	5.9	4	18J0052-02
9/11/2018		66	Tiffany	Pearl	North Providence	PGM	6	BS	3.1	4	18J0053-01
9/11/2018		66	Tiffany	Pearl	North Providence	PGM	6	BS	1.8	0.8	18J0053-02
9/27/2018			Thorton	Esmond	Smithfield	PGM	6	CI	10	4	18J0054-01
9/27/2018			Thorton	Esmond	Smithfield	PGM	6	BS	8.7	4	18J0054-02
9/4/2018			Locust	Willow	East Providence	PGM	6	ci	8.4	4	18J0055-01
10/22/2018			Brook	Benevolent	Providence	PGM	6	CI	48	32	18J1092-01
10/22/2018			Brook	Benevolent	Providence	PGM	6	CI	13	8	18J1092-02
10/22/2018		952	Hartford		Providence	PGM	6	CI	160	160	18J1089-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
10/23/2018		953	Hartford		Providence	PGM	6	CI	19	8	18J1089-02
10/17/2018		144	Morris Ave	Olney	Providence	PGM	6	CI	2.4	3.2	18J1088-01
10/17/2018		144	Morris Ave	Olney	Providence	PGM	6	CI	3.6	3.2	18J1088-02
10/15/2018			Marne	Cty View Parkway	Johnston	PGM	6	BS	0.84	1	18J1093-01
10/16/2018			Marne	Cty View Parkway	Johnston	PGM	6	BS	1.65	1	18J1093-02
10/9/2018		85	Sheldon	Fort Acre	Cranston	PGM	6	PL	0	1	18J1097-01
10/9/2018		85	Sheldon	Fort Acre	Cranston	PGM	6	PL	0	1	18J1097-02
10/18/2018			Ruth	Roger William	East Providence	PGM	6	CI	140	160	18J1098-01
10/18/2018			Ruth	Roger William	East Providence	PGM	6	CI	260	320	18J1098-02
10/18/2018		246	Lenox	Kipling	Providence	PGM	6	CI	0	1	18J1099-01
10/18/2018		246	Lenox	Kipling	Providence	PGM	6	CI	0	1	18J1099-02
10/3/2018		473	Pontiac	Blackmore	Cranston	PGM	6	CI	1.1		18J1087-01
10/3/2018		473	Pontiac	Blackmore	Cranston	PGM	6	CI	0.46	1	18J1087-02
10/1/2018		31	Woodward	Massasoit	East Providence	PGM	6	PL	0	1	18J1090-01
10/1/2018		31	Woodward	Massasoit	East Providence	PGM	6	PL	0	1	18J1090-02
8/10/2018			Charles	Macari	Pawtucket	VG	6	CI	0	1	18J1091-01
8/10/2018			Charles	Macari	Pawtucket	VG	6	CI	0	1	18J1091-02
10/3/2018			Reservior	Coulters	Cranston	PGM	12	CI	3.6	4	18J1094-01
10/3/2018			Reservior	Coulters	Cranston	PGM	12	CI	4.2	4	18J1094-02
10/3/2018		346	North Broadway	Massasoit	East Providence	PGM	6	CI	1.21	1	18J1100-01
10/3/2018		346	North Broadway	Massasoit	East Providence	PGM	6	CI	1.06	1	18J1100-02
10/2/2018			Main	Warren	Pawtucket	VG	6	CI	0	1	18J1096-01
10/2/2018			Main	Warren	Pawtucket	VG	6	CI	0	1	18J1096-02
10/5/2018		49	Castro	Centre	East Providence	PGM	6	BS	51,000	32,000	18J1101-01
10/5/2018		49	Castro	Centre	East Providence	PGM	6	BS	6,700	3,200	18J1101-02
8/9/2018			Charles	Voltoard	Pawtucket	VG	8	CI	0	1	18J1102-01
8/9/2018			Charles	Voltoard	Pawtucket	VG	8	CI	0	1	18J1102-02
10/1/2018			Lincoln	Bullocks Point Road	East Providence	PGM	6	CI	34	16	18J1109-01
10/1/2018			Lincoln	Bullocks Point Road	East Providence	PGM	6	CI	240	80	18J1109-02
10/1/2018			Lincoln	Bullocks Point Road	East Providence	PGM	6	CI	446	144	18J1109-03
10/1/2018			Lincoln	Bullocks Point Road	East Providence	PGM	6	CI	652	208	18J1109-04
9/24/2018			veterans Memorial Parkway	East side of pprovidence R	East Providence	PGM	12	BS	3.7	4	18J1107-01
9/24/2018			veterans Memorial Parkway	East side of pprovidence R	East Providence	PGM	12	BS	3.4	4	18J1107-02
9/13/2018		995	Main	Warren	Pawtucket	VG	6	ci	0	1	18J1106-01
9/13/2018		995	Main	Warren	Pawtucket	VG	6	CI	0.22	1	18J1106-02
10/4/2018		14	Perkins	Ann	Westerly	SCG	6	BS	43	40	18J1105-01
10/4/2018		14	Perkins	Ann	Westerly	SCG	6	BS	34	40	18J1105-02
10/3/2018		999	main	warren	Pawtucket	VG	6	CI	0	1	18J1103-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
10/3/2018		999	main	warren	Pawtucket	VG	6	CI	0	1	18J1103-02
10/18/2018		3	Salem	Douglas	North Providence	PGM	6	CI	6.5	5	18J1104-01
10/18/2018		3	Salem	Douglas	North Providence	PGM	6	CI	11	5	18J1104-02
10/5/2018			Broadway	Harkness	Providence	PGM	6	CI	0	16	18J1095-01
10/5/2018			Broadway	Harkness	Providence	PGM	6	CI	0	16	18J1095-02
10/15/2018			Dunnel	Sisson	Pawtucket	VG	6	CI	0	1	18K0199-01
10/15/2018			Dunnel	Sisson	Pawtucket	VG	6	CI	0	1	18K0199-02
10/22/2018			Gordon	Harmon	Cranston	PGM	6	ci	3.2	8	18K0200-01
10/22/2018			Gordon	Harmon	Cranston	PGM	6	ci	6.6	8	18K0200-02
10/30/2018			Service Road #1	Union	Providence	PGM	12	BS	48	40	18K0201-01
10/30/2018			Service Road #1	Union	Providence	PGM	12	BS	32	40	18K0201-02
10/16/2018		216	High	Pearl	Westerly	SCG	6	PI	0	1	18K0203-01
10/16/2018		216	High	Pearl	Westerly	SCG	6	PI	0	1	18K0203-02
10/25/2018		83	Sorrento	Linwood	Providence	PGM	6	PL	0	1	18K0204-01
10/25/2018		83	Sorrento	Linwood	Providence	PGM	6	PL	0	1	18K0204-02
11/2/2018		151	Kay	Toppa	Newport	NG	6	PL	0.42	1	18K0205-01
11/2/2018		151	Kay	Toppa	Newport	NG	6	PL	0	1	18K0205-02
11/15/2018			Leicester	Arlington	Lincoln	VG	6	BS	0	1	19A0653-01
11/15/2018			Leicester	Arlington	Lincoln	VG	6	BS	0	1	19A0653-02
11/12/2018		926	Atwood	Plainfield	Johnston	PGM	12	CI	78	40	19A0651-01
11/12/2018		926	Atwood	Plainfield	Johnston	PGM	12	CI	56	32	19A0651-02
11/17/2018			Dickerson	Atwood	North Providence	PGM	4	CI	28	16	19A0649-01
11/17/2018			Dickerson	Atwood	North Providence	PGM	4	CI	18	16	19A0649-02
12/6/2018		656	Centerville	Cedar Pond	Warwick	PGM	8	BS	56	40	19A0625-01
12/6/2018		656	Centerville	Cedar Pond	Warwick	PGM	8	BS	41	40	19A0625-02
11/19/2018		27	Dickerson	Atwood	North Providence	PGM	6	CI	1.2	1	19A0626-01
11/19/2018		27	Dickerson	Atwood	North Providence	PGM	6	CI	0.85	1	19A0626-02
12/5/2018		10-32	Westminster	Memorial	Providence	PGM	6	BS	59	40	19A0628-01
12/5/2018		10-32	Westminster	Memorial	Providence	PGM	8	BS	110	80	19A0628-02
1/7/2019			Carrie	Centre	East Providence	PGM	6	CI	28	16	19A0631-01
1/7/2019			Carrie	Centre	East Providence	PGM	6	CI	33	16	19A0631-02
1/7/2019		840	Sandy	Armory	Warwick	PGM	8	PI	0.82	1	19A0638-01
1/7/2019		840	Sandy	Armory	Warwick	PGM	8	PI	0.84	1	19A0638-02
12/6/2018		50	Nevada	Campbell	East Providence	PGM	6	CI	41	16	19A0635-01
12/6/2018		50	Nevada	Campbell	East Providence	PGM	6	CI	27	16	19A0635-02
12/4/2018			Greenville	George Waterman	Johnston	PGM	6	CI	15	8	19A0640-01
12/4/2018			Greenville	George Waterman	Johnston	PGM	6	CI	1.9	1	19A0640-02
12/14/2018		1	Hill	Esmond	Smithfield	PGM	6	CI	20	16	19A0641-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
12/14/2018		1	Hill	Esmond	Smithfield	PGM	6	CI	24	16	19A0641-02
11/26/2018			Cleveland	Lojie	North Providence	PGM	6	CI	0	1	19A0645-01
11/26/2018			Cleveland	Lojie	North Providence	PGM	6	CI	0	1	19A0645-02
12/11/2018			Pearl	Pierce	Westerly	SCG	6	PI	0	1	19A0634-01
12/11/2018			Pearl	Pierce	Westerly	SCG	6	PI	0	1	19A0634-02
11/28/2018			Whitman	Waterman	Smithfield	PGM	6	CI	4.8	4	19A0610-01
11/28/2018			Whitman	Waterman	Smithfield	PGM	6	CI	27	16	19A0610-02
12/4/2018			Dean		Smithfield	PGM	6	BS	4.4	3.2	19A0611-01
12/4/2018			Dean		Smithfield	PGM	6	BS	1.2	1	19A0611-02
11/26/2018			Rte 10 South	Westminster	Providence	PGM	12	BS	310	160	10A0614-01
11/26/2018			Rte 10 South	Westminster	Providence	PGM	12	BS	150	80	10A0614-02
12/18/2018			Derby Ave	Mineral Spring	North Providence	PGM	6	BS	1.8	1	19A0615-01
12/18/2018			Derby Ave	Mineral Spring	North Providence	PGM	6	BS	2.8	1.6	19A0615-02
1/9/2019			George Waterman		Johnston	PGM	16	CI	80	40	19A0617-01
1/9/2019			George Waterman		Johnston	PGM	16	CI	48	40	19A0617-02
12/1/2018			Lojai	Adams	North Providence	PGM	6	PI	0	1	19A0618-01
12/1/2018			Lojai	Adams	North Providence	PGM	6	PI	0	1	19A0618-02
12/4/2018		1640	Mineral Spring		North Providence	PGM	6	CI	5.3	4	19A0619-01
12/4/2018		1640	Mineral Spring		North Providence	PGM	6	CI	3.1	3.2	19A0619-02
12/10/2018			Pearl	Service	Westerly	SCG	6	PI	0	1	10A0621-01
12/10/2018			Pearl	Service	Westerly	SCG	6	PI	0	1	10A0621-02
11/26/2018			Cleveland	Franklin	North Providence	PGM	4	CI	2	1.6	19A0623-01
11/26/2018			Cleveland	Franklin	North Providence	PGM	4	CI	0.63	1	19A0623-02
11/9/2018		121-123	Grove	Almy	Providence	PGM	6	CI	0	1	19A0624-01
11/9/2018		121-123	Grove	Almy	Providence	PGM	6	CI	1.7	1	19A0624-02
12/6/2018			Everett	Francis	Newport	NG	6	PL	0	1	19A0646-01
12/6/2018			Everett	Francis	Newport	NG	6	PL	0	1	19A0646-02
11/20/2018			Dorman	Mineral Spring	North Providence	PGM	8	CI	0	1	19A0650-01
11/20/2018			Dorman	Mineral Spring	North Providence	PGM	8	CI	0	1	19A0650-02
11/16/2018			Sheffield	Enfield	Lincoln	VG	6	PI	0	1	19A0647-01
11/16/2018			Sheffield	Enfield	Lincoln	VG	6	PI	0	1	19A0647-02
11/19/2018		53	Esmond	Penbryn	Smithfield	PGM	6	CI	0	1	19A0648-01
11/19/2018		53	Esmond	Penbryn	Smithfield	PGM	6	CI	0	1	19A0648-02
1/9/2019			Josephine	Centre	East Providence	PGM	6	CI	30	4	19C1438-01
1/9/2019			Josephine	Centre	East Providence	PGM	6	CI	130	10	19C1438-02
3/26/2019			Washakie	Mineral Spring	North Providence	PGM	6	CI	4.6	1	19C1447-01
3/26/2019			Washakie	Mineral Spring	North Providence	PGM	6	CI	4.5	1	19C1447-02
2/4/2019			Elm	Joan	Westerly	SCG	8	CI	0	1	19C1451-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
2/4/2019			Elm	Joan	Westerly	SCG	8	CI	0.96	1	19C1451-02
3/14/2019		2200	Broad	Aborn	Pawtucket	VG	6	CI	2.4	1	19C1450-01
3/14/2019		2200	Broad	Aborn	Pawtucket	VG	6	CI	1.6	1	19C1450-02
3/21/2019			Hoyt	Pawtucket	East Providence	PGM	6	CI	18	1	19C1449-01
3/21/2019			Hoyt	Pawtucket	East Providence	PGM	6	CI	45	4	19C1449-02
3/6/2019		1001	Pawtucket Ave	Don	East Providence	PGM	6	PL	2	1	19c1452-01
3/6/2019		1001	Pawtucket Ave	Don	East Providence	PGM	6	PL	1.7	1	19c1452-02
1/6/2019		57	Thelma	Rosner	North Providence	PGM	6	BS	2.9	1	19C1444-01
1/6/2019		57	Thelma	Rosner	North Providence	PGM	6	BS	2.1	1	19C1444-02
1/1/2019		437	Love		East Greenwich	PGM	6	BS	6.8	1	19C1443-01
1/1/2019		437	Love		East Greenwich	PGM	6	BS	29	2	19C1443-02
3/27/2019		2	Weeden	Pawtucket	East Providence	PGM	6	CI	23	2	19C1448-01
3/27/2019		2	Weeden	Pawtucket	East Providence	PGM	6	CI	15	1	19C1448-02
3/14/2019		155	Don		East Providence	PGM	6	CI	0.92	1	19C1430-01
3/14/2019		155	Don		East Providence	PGM	6	CI	1.5	1	19C1430-02
3/26/2019		690	Fruit Hill		East Providence	PGM	6	CI	1.5	1	19C1431-01
3/26/2019		690	Fruit Hill		East Providence	PGM	6	CI	0	1	19C1431-02
3/25/2019			Greenville	Lyman	Johnston	PGM	6	CI	20	2	19C1433-01
3/25/2019			Greenville	Lyman	Johnston	PGM	6	CI	7.7	1	19C1433-02
3/19/2019		112	A St.	Atwood	Cranston	PGM	12	CI	43	4	19C1434-01
3/19/2019		112	A St.	Atwood	Cranston	PGM	12	CI	0.22	1	19C1434-02
2/4/2019		197	Garden		Cranston	PGM	6	PL	0	1	19C1432-01
2/4/2019		197	Garden		Cranston	PGM	6	PL	11	1	19C1432-02
2/7/2019		2191	Broad	Parkway	Cranston	PGM	6	PL	0	1	19C1435-01
2/7/2019		2191	Broad	Parkway	Cranston	PGM	6	PL	70	1	19C1435-02
3/27/2019			Lafayette	George Waterman	Johnston	PGM	6	CI	0.92	1	19C1437-01
3/27/2019			Lafayette	George Waterman	Johnston	PGM	6	CI	0.98	1	19C1437-02
2/19/2019		700	Allens	Ernest	Providence	PGM	12	CI	0	5	19C1439-01
2/19/2019		700	Allens	Ernest	Providence	PGM	12	CI	0	10	19C1439-02
1/14/2019			R.W Ave	Bonnie	East Providence	PGM	6	CI	2.5	1	19C1436-01
1/14/2019			R.W Ave	Bonnie	East Providence	PGM	6	CI	25	4	19C1436-02
3/16/2019			School	Plainfield	Johnston	PGM	6	CI	0	1	19C1440-01
3/16/2019			School	Plainfield	Johnston	PGM	6	CI	0.74	1	19C1440-02
2/13/2019		54	Richmond	Prospect	Bristol	BWG	6	CI	3.8	1	19C1455-01
2/13/2019		54	Richmond	Prospect	Bristol	BWG	6	CI	1.5	1	19C1455-02
1/10/2019			Vineland	Centre	East Providence	PGM	6	PL	0	1	19C1442-01
1/10/2019			Vineland	Centre	East Providence	PGM	6	PL	0	1	19C1442-02
3/15/2019		383	Love	Nancy Allen	Warwick	PGM	8	BS	15	1	19C1453-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
3/15/2019		383	Love	Nancy Allen	Warwick	PGM	8	BS	22	2	19C1453-02
3/23/2019			John	Pezzullo	Johnston	PGM	6	CI	120	40	19C1446-01
1/17/2019		2353	West Shore	Albert	Warwick	PGM	6	BS	4.6	1	14C1454-01
1/17/2019		2353	West Shore	Albert	Warwick	PGM	6	BS	8	1	14C1454-02
3/25/2019		167	Beverly	Grassy Plain	East Providence	PGM	8	BS	18	2	19C2479-01
3/25/2019		167	Beverly	Grassy Plain	East Providence	PGM	8	BS	6.8	1	19C2479-02
3/27/2019			Towanda	Pensaukeo	North Providence	PGM	6	CI	0	1	19C1445-01
3/27/2019			Towanda	Pensaukeo	North Providence	PGM	6	CI	0	1	19C1445-02
5/22/2019			Pawtucket	Triton	Pawtucket	VG	6	CI	3.9	1	19E1297-01
5/22/2019			Pawtucket	Triton	Pawtucket	VG	6	CI	0.59	1	19E1297-02
4/18/2019		265	Oaklawn	Greening	Cranston	PGM	8	CI	1.1	1	19E1298-01
4/18/2019		265	Oaklawn	Greening	Cranston	PGM	8	CI	0.98	1	19E1298-02
4/10/2019		308	Bucklin	Woodman	Westerly	SCG	8	CI	0	1	19E1280-01
5/14/2019		1725	Kingstown	Curtis Corner	South Kingstown	PGM	12	PL	0	1	19E1296-01
5/14/2019		1725	Kingstown	Curtis Corner	South Kingstown	PGM	12	PL	0	1	19E1296-02
4/4/2019		194	Hoyt	Wilson	East Providence	PGM	12	CI	320	40	19E1289-01
4/4/2019		194	Hoyt	Wilson	East Providence	PGM	12	CI	74	4	19E1289-02
4/9/2019		283	Dexter	Ford	Providence	PGM	6	CI	0	1	19E1287-01
4/9/2019		283	Dexter	Ford	Providence	PGM	6	CI	0	1	19E1287-02
12/18/2018		13	Bliss Mine	Bliss	Middletown	NG	6	CI	0	1	19E1288-01
12/18/2018		13	Bliss Mine	Bliss	Middletown	NG	6	CI	0	1	19E1288-02
5/13/2019		85	Marlborough	Irving	Cranston	PGM	6	BS	1.2	1	19E1290-01
5/13/2019		85	Marlborough	Irving	Cranston	PGM	6	BS	1.1	1	19E1290-02
4/25/2019		90	Upper College	Lippitt	South Kingstown	PGM	8	PL	0	1	19E1292-01
4/25/2019		90	Upper College	Lippitt	South Kingstown	PGM	8	PL	0.3	1	19E1292-02
5/20/2019		11	Atwood	Cranston	Cranston	PGM	6	PL	0	1	19E1286-01
5/20/2019		11	Atwood	Cranston	Cranston	PGM	6	PL	0	1	19E1286-02
4/2/2019		1718	Westminster	Route 10	Providence	PGM	12	CI	45	2	19E1293-01
4/2/2019		1718	Westminster	Route 10	Providence	PGM	12	CI	10	1	19E1293-02
5/7/2019			Belmont	Pawtucket	Pawtucket	VG	6	PL	0	1	19E1294-01
5/7/2019			Belmont	Pawtucket	Pawtucket	VG	6	PL	0	1	19E1294-02
5/7/2019		2	Conway	Northrup	North Kingstown	PGM	6	PL	0.23	1	19E1295-01
5/7/2019		2	Conway	Northrup	North Kingstown	PGM	6	PL	0	1	19E1295-02
4/24/2019			Higginson	Consdale	Central Falls	VG	6	BS	4.7	1	19E1291-01
4/24/2019			Higginson	Consdale	Central Falls	VG	6	BS	1	1	19E1291-02
4/29/2019		60	Elm	Crescent	Westerly	SCG	8	CI	9.2	1	19E1278-01
4/29/2019		60	Elm	Crescent	Westerly	SCG	8	CI	20	2	19E1278-02
5/1/2019		2	S Brewd	Pond	Pawtucket	VG	12	CI	0	1	19E1276-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
5/1/2019		2	S Brewd	Pond	Pawtucket	VG	12	CI	0.33	1	19E1276-02
6/5/2019			Main	Broad	Westerly	SCG	6	CI	12	1	19E1275-01
6/5/2019			Main	Broad	Westerly	SCG	6	CI	5.3	1	19E1275-02
4/25/2019		160	Gibbs	Kay	Newport	NG	6	PL	0	1	19E1277-01
4/25/2019		160	Gibbs	Kay	Newport	NG	6	PL	0	1	19E1277-02
4/23/2019		48	Nickerson	Cranston	Cranston	PGM	6	PL	6.5	1	19E1279-01
4/23/2019		48	Nickerson	Cranston	Cranston	PGM	6	PL	15	1	19E1279-02
3/13/2019		935	High	Blackskowe	Central Falls	VG	8	BS	0.35	1	19E1282-01
3/13/2019		935	High	Blackskowe	Central Falls	VG	8	BS	0.24	1	19E1282-02
4/23/2019		1316	BBS	Watson	Newport	NG	6	PL	0.69	1	19E1285-01
4/23/2019		1316	BBS	Watson	Newport	NG	6	PL	0	1	19E1285-02
3/27/2019		67	Lynoon	Waite	Cranston	PGM	6	PL	0.44	1	19E1283-01
3/27/2019		67	Lynoon	Waite	Cranston	PGM	6	PL	1.8	1	19E1283-02
4/25/2019		5	Lippit	Upper College	South Kingstown	PGM	8	BS	1.1	1	19E1284-01
4/25/2019		5	Lippit	Upper College	South Kingstown	PGM	8	BS	4	1	19E1284-02
4/24/2019			Higgenson	Lonsdale	Central Falls	VG	6	BS	6.8	1	19E1281-01
4/24/2019			Higgenson	Lonsdale	Central Falls	VG	6	BS	5.5	1	19E1281-02
6/7/2019			Union	Grove	Lincoln	VG	6	PL	0	1	19G0986-01
6/7/2019			Union	Grove	Lincoln	VG	6	PL	0	1	19G0986-02
6/12/2019			Onley	Second	Lincoln	VG	6	PL	0	1	19G0981-01
6/12/2019			Onley	Second	Lincoln	VG	6	PL	0	1	19G0981-02
6/18/2019			Livingston	Arnold	Lincoln	VG	6	PL	0	1	19G0979-01
6/18/2019			Livingston	Arnold	Lincoln	VG	6	PL	0	1	19G0979-02
7/10/2019		12	Roger Williams	Eccleston	North Kingstown	PGM	6	BS	0.26	1	19G0965-01
7/10/2019		12	Roger Williams	Eccleston	North Kingstown	PGM	6	BS	0.65	1	19G0965-02
6/6/2019			Union	Pleasant	Lincoln	VG	6	PL	0	1	19G0954-01
6/6/2019			Union	Pleasant	Lincoln	VG	6	PL	0	1	19G0954-02
6/24/2019			First	Lakeview	Lincoln	VG	6	PL	0	1	19G0971-01
6/24/2019			First	Lakeview	Lincoln	VG	6	PL	0	1	19G0971-02
6/24/2019			Franklin	Whipple	Cranston	PGM	6	BS	8.3	2	19G0972-01
6/24/2019			Franklin	Whipple	Cranston	PGM	6	BS	2.7	2	19G0972-02
5/22/2019			Winter	Prospect	Woonsocket	VG	6	CI	0	1	19G0956-01
5/22/2019			Winter	Prospect	Woonsocket	VG	6	CI	0	1	19G0956-02
6/5/2019		1378	Douglas		North Providence	PGM	6	PL	0	1	19G0953-01
6/5/2019		1378	Douglas		North Providence	PGM	6	PL	0.44	1	19G0953-02
5/30/2019		200	Warwick	Merle	Warwick	PGM	8	PL	1.1	1	19G0950-01
5/30/2019		200	Warwick	Merle	Warwick	PGM	8	PL	0.82	1	19G0950-02
6/5/2019		1552	Kingstown	Meadow Brook	South Kingstown	PGM	8	BS	0.23	1	19G0983-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
6/5/2019		1552	Kingstown	Meadow Brook	South Kingstown	PGM	8	BS	0.29	1	19G0983-02
5/29/2019			Winter	Summer	Woonsocket	VG	6	CI	0	1	19G0974-01
5/29/2019			Winter	Summer	Woonsocket	VG	6	CI	0	1	19G0974-02
6/4/2019			Lakeview		Lincoln	VG	6	PL	0	1	19G0967-01
6/4/2019			Lakeview		Lincoln	VG	6	PL	0	1	19G0967-02
5/23/2019			Winter	Prospect	Woonsocket	VG	6	CI	0	1	19G0958-01
5/23/2019			Winter	Prospect	Woonsocket	VG	6	CI	0.21	1	19G0958-02
5/28/2019			Sherman	Link	North Providence	PGM	6	BS	1.2	1	19G0919-01
5/28/2019			Sherman	Link	North Providence	PGM	6	BS	0.7	1	19G0919-02
5/29/2019			Wendell	Woodbine	North Providence	PGM	6	BS	2	1	19G0969-01
5/29/2019			Wendell	Woodbine	North Providence	PGM	6	BS	1.1	1	19G0969-02
6/6/2019		418	Montgomery		Providence	PGM	12	CI	2.9	1	19G0976-01
6/6/2019		418	Montgomery		Providence	PGM	12	CI	28	2	19G0976-02
8/1/2019			Hilarity	Hartford	Providence	PGM	6	CI	120	20	19I0457-01
8/1/2019			Hilarity	Hartford	Providence	PGM	6	CI	160	20	19I0457-02
8/22/2019		100	Bernon SC	Old Bernon SC	Woonsocket	VG	12	BS	0.82	1	19I0458-01
8/22/2019		100	Bernon SC	Old Bernon SC	Woonsocket	VG	12	BS	0.73	1	19I0458-02
7/25/2019		10	Shirley	Pontiac	Cranston	PGM	6	PL	0	1	19I0454-01
7/25/2019		10	Shirley	Pontiac	Cranston	PGM	6	PL	0.54	1	19I0454-02
7/29/2019		236	Wayland	Inernia	Cranston	PGM	6	CI	0.98	1	19I0459-01
7/29/2019		236	Wayland	Inernia	Cranston	PGM	6	CI	1.2	1	19I0459-02
8/20/2019			Old Bernon SC	Main SC	Woonsocket	VG	12	CI	0	1	19I0455-01
8/20/2019			Old Bernon SC	Main SC	Woonsocket	VG	12	CI	0	1	19I0455-02
5/11/2019		285	Smithfield	Nathanial	Pawtucket	VG	6	CI	0.59	1	19I0433-01
5/11/2019		285	Smithfield	Nathanial	Pawtucket	VG	6	CI	0	1	19I0433-02
7/24/2019		1	Drowne	Pawtucket	East Providence	PGM	6	CI	0.8	1	19I0436-01
7/24/2019		1	Drowne	Pawtucket	East Providence	PGM	6	CI	0.81	1	19I0436-02
9/9/2019			Gaskill	State	Woonsocket	VG	6	CI	0	1	19I0438-01
9/9/2019			Gaskill	State	Woonsocket	VG	6	CI	0	1	19I0438-02
8/22/2019			Park	Orchard	Cranston	PGM	6	PL	0	1	19I0440-01
8/22/2019			Park	Orchard	Cranston	PGM	6	PL	0	1	19I0440-02
6/28/2019			Leicester	Cambridge	Lincoln	VG	6	PL	0	1	19I0449-01
6/28/2019			Leicester	Cambridge	Lincoln	VG	6	PL	0	1	19I0449-02
7/22/2019		158	Pawtucket	Randall	Pawtucket	VG	6	CI	1.8	1	19I0443-01
7/22/2019		158	Pawtucket	Randall	Pawtucket	VG	6	CI	3.1	1	19I0443-02
8/1/2019			Front	Lojee	Woonsocket	VG	6	CI	0	1	19I0442-01
8/1/2019			Front	Lojee	Woonsocket	VG	6	CI	0	1	19I0442-02
8/9/2019			Byron	Campbell	Pawtucket	VG	6	CI	1.1	1	19I0453-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
8/9/2019			Byron	Campbell	Pawtucket	VG	6	CI	0.51	1	19I0453-02
7/18/2019			Scituate	Bridge	Johnston	PGM	8	BS	51	4	19I0446-01
7/18/2019			Scituate	Bridge	Johnston	PGM	8	BS	29	2	19I0446-02
7/17/2019			Scituate	295 Ramp	Johnston	PGM	8	PL	0.45	1	19I0450-01
7/17/2019			Scituate	295 Ramp	Johnston	PGM	8	PL	0.5	1	19I0450-02
8/26/2019			Windmill	Piave	North Providence	PGM	6	CI	0	1	19I0452-01
8/26/2019			Windmill	Piave	North Providence	PGM	6	CI	0	1	19I0452-02
9/20/2019			Great	Morse	North Smithfield	VG	6	BS	1.2	1	19J0523-01
9/20/2019			Great	Morse	North Smithfield	VG	6	BS	0	1	19J0523-02
9/10/2019			Cormick	Parker	Lincoln	VG	6	PL	0	1	19J0526-01
9/10/2019			Cormick	Parker	Lincoln	VG	6	PL	0	1	19J0526-02
10/18/2019		1543	Mineral Spring	Lexington	North Providence	PGM	6	CI	2	1	19J0536-01
10/18/2019		1543	Mineral Spring	Lexington	North Providence	PGM	6	CI	8.8	1	19J0536-02
10/7/2019		1255	Ten Rod	Quaker	North Kingstown	PGM	6	BS	6.5	4	19J0531-01
10/7/2019		1255	Ten Rod	Quaker	North Kingstown	PGM	6	BS	3.8	1	19J0531-02
10/4/2019		38	New Hampshire	Florida	Cranston	PGM	6	CI	2.6	1	19J0533-01
10/4/2019		38	New Hampshire	Florida	Cranston	PGM	6	CI	1.4	1	19J0533-02
9/20/2019			Arnold	Yates	Lincoln	VG	6	PL	0	1	19J0528-01
9/20/2019			Arnold	Yates	Lincoln	VG	6	PL	0	1	19J0528-02
9/18/2019			Windmill	Vivian	North Providence	PGM	6	CI	1.1	1	19J0539-01
9/18/2019			Windmill	Vivian	North Providence	PGM	6	CI	1.8	1	19J0539-02
9/19/2019			Arnold	Yates	Lincoln	VG	6	PL	0	1	19J0535-01
9/19/2019			Arnold	Yates	Lincoln	VG	6	PL	0	1	19J0535-02
10/14/2019		38	New Hampshire	Florida	Cranston	PGM	6	CI	2.6	1	19J0533-01
10/14/2019		38	New Hampshire	Florida	Cranston	PGM	6	CI	0	1	19J0533-02
10/7/2019		1255	Ten Rod	Quaker	North Kingstown	PGM	16	BS	6.5	4	19J0531-01
10/7/2019		1255	Ten Rod	Quaker	North Kingstown	PGM	16	BS	3.8	1	19J0531-02
9/18/2019		1543	Mineral Spring	Lexington	North Providence	PGM	6	CI	2	1	19J0536-01
9/18/2019		1543	Mineral Spring	Lexington	North Providence	PGM	6	CI	8.8	1	19J0536-02
9/10/2019			Cormick	Parker	Lincoln	VG	6	PL	0	1	19J0526-01
9/10/2019			Cormick	Parker	Lincoln	VG	6	PL	0	1	19J0526-02
9/20/2019			Great	Morse	North Smithfield	VG	6	BS	1.2	1	19J0523-01
9/20/2019			Great	Morse	North Smithfield	VG	6	BS	0	1	19J0523-02
9/18/2019			Windmill	Vivian	North Providence	PGM	6	CI	1.1	1	19J0539-01
9/18/2019			Windmill	Vivian	North Providence	PGM	6	CI	1.8	1	19J0539-02
9/10/2019			Great	Pound	North Smithfield	VG	6	PL	0	1	19J0540-01
9/10/2019			Great	Pound	North Smithfield	VG	6	PL	0	1	19J0540-02
9/16/2019			Main	Park	Pawtucket	VG	6	CI	0	1	19J0537-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
9/16/2019			Main	Park	Pawtucket	VG	6	CI	0.5	1	19J0537-02
10/17/2019			Hyde	Budlong	Cranston	PGM	6	BS	1.2	1	19K0133-01
10/18/2019			Hyde	Budlong	Cranston	PGM	6	BS	0.66	1	19K0133-02
10/15/2019		395	Eddy	Willard	Providence	PGM	6	CI	0.7	1	19K0136-01
10/15/2019		395	Eddy	Willard	Providence	PGM	6	CI	1.3	1	19K013-02
10/29/2019			Clark	Helen	North Providence	PGM	6	BS	10	1	19K0135-01
10/29/2019			Clark	Helen	North Providence	PGM	6	BS	10	1	19K0135-02
10/15/2019			Wilson	Hartford	Johnston	PGM	6	CI	10	2	19K0132-01
10/15/2019			Wilson	Hartford	Johnston	PGM	6	CI	1.9	1	19K0132-02
10/21/2019		28	Lois	Brentwood	Providence	PGM	6	CI	0.32	1	19K0137-01
10/21/2019		28	Lois	Brentwood	Providence	PGM	6	CI	0	1	19K0137-02
10/24/2019			Wilson	N Loxley	Johnston	PGM	6	CI	11	2	19K0145-01
10/24/2019			Wilson	N Loxley	Johnston	PGM	6	CI	1.2	1	19K0145-02
10/7/2019		967	Pontiac	Capuano	Cranston	PGM	6	CI	0.32	1	19K0144-01
10/7/2019		967	Pontiac	Capuano	Cranston	PGM	6	CI	0	1	19K0144-02
10/7/2019			Rockland	Morse	Woonsocket	VG	6	CI	0	1	19K0140-01
10/7/2019			Rockland	Morse	Woonsocket	VG	6	CI	0	1	19K0140-02
10/11/2019			Cormier	Westwood	Lincoln	VG	6	PL	0	1	19K0141-01
10/11/2019			Cormier	Westwood	Lincoln	VG	6	PL	0	1	19K0141-02
10/1/2019			Winter	Harris	Woonsocket	VG	6	PL	0	1	19K0143-01
10/1/2019			Winter	Harris	Woonsocket	VG	6	PL	0	1	19K0143-02
9/30/2019			Livingston	Arnold	Lincoln	VG	6	PL	0	1	19K0139-01
9/30/2019			Livingston	Arnold	Lincoln	VG	6	PL	0	1	19K0139-02
10/23/2019			Spring Hill	George Waterman	Johnston	PGM	6	BS	3.7	1	19K0134-01
10/23/2019			Spring Hill	George Waterman	Johnston	PGM	6	BS	1.1	1	19K0134-02
9/26/2019			Morse	Alice	Woonsocket	VG	6	CI	1	1	19K0138-01
9/26/2019			Morse	Alice	Woonsocket	VG	6	CI	1.4	1	19K0138-02
11/14/2019		31	America's Cupway	Poplar	Newport	NG	8	CI	0.45	1	19L0884-01
11/14/2019		31	America's Cupway	Poplar	Newport	NG	8	CI	0.79	1	19L0884-02
12/4/2019		775	Hope	Silvercreek Bridge	Bristol	BWG	8	CI	0.77	1	19L0881-01
12/4/2019		775	Hope	Silvercreek Bridge	Bristol	BWG	8	CI	0.7	1	19L0881-02
11/8/2019		107	East	Ferncliff	North Providence	PGM	6	PL	0.36	1	19L0887-01
11/8/2019		107	East	Ferncliff	North Providence	PGM	6	PL	0.22	1	19L0887-02
12/7/2019			Sampson	Hawkins	North Providence	PGM	6	CI	3.5	1	19L0889-01
12/7/2019			Sampson	Hawkins	North Providence	PGM	6	CI	1	1	19L0889-02
11/22/2019			Plainfield	Pocasset	Johnston	PGM	8	CI	0.28	1	19L0886-01
11/22/2019			Plainfield	Pocasset	Johnston	PGM	8	CI	0.68	1	19L0886-02
11/15/2019			Harris	Blackstone	Woonsocket	VG	8	CI	0.38	1	19L0885-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
11/15/2019			Harris	Blackstone	Woonsocket	VG	8	CI	0.75	1	19L0885-02
12/5/2019		114	Putnam	Cottage	Johnston	PGM	6	CI	1.7	1	19L0891-01
12/5/2019		114	Putnam	Cottage	Johnston	PGM	6	CI	3.6	1	19L0891-02
11/22/2019			Norfolk	Liverpool	Pawtucket	VG	6	CI	0	1	19L0892-01
11/22/2019			Norfolk	Liverpool	Pawtucket	VG	6	CI	0.21	1	19L0892-02
11/20/2019			Benefit	Clarner	Pawtucket	VG	6	CI	0.28	1	19L0893-01
11/20/2019			Benefit	Clarner	Pawtucket	VG	6	CI	0.3	1	19L0893-02
11/19/2019		634	Killingly	Dante	Johnston	PGM	6	PL	0.27	1	19L0890-01
11/19/2019		634	Killingly	Dante	Johnston	PGM	6	PL	0	1	19L0890-02
10/23/2019			Smith field	Parker	Lincoln	VG	6	CI	0	1	19L0897-01
10/23/2019			Smith field	Parker	Lincoln	VG	6	CI	2.2	1	19L0897-02
11/25/2019			Daggett	Central	Providence	PGM	6	CI	0.22	1	19L0894-01
11/25/2019			Daggett	Central	Providence	PGM	6	CI	0.41	1	19L0894-02
11/26/2019			Daggett	Suffolk	Pawtucket	VG	8	CI	0.23	1	19L0895-01
11/26/2019			Daggett	Suffolk	Pawtucket	VG	8	CI	0.41	1	19L0895-02
11/26/2019		1007	Narragansett	Montgomery	Providence	PGM	6	CI	0.61	1	19L0896-01
11/26/2019		1007	Narragansett	Montgomery	Providence	PGM	6	CI	0.8	1	19L0896-02
12/18/2019			Ferncrest	Warwick	Cranston	PGM	8	BS	460	50	19L0880-01
12/18/2019			Ferncrest	Warwick	Cranston	PGM	8	BS	660	50	19L0880-02
11/13/2019			Westminister	Rt 10	Providence	PGM	12	CI	46	8	19L0879-01
11/13/2019			Westminister	Rt 10	Providence	PGM	12	CI	48	8	19L0879-02
11/26/2019			Harris	Atwells	Providence	PGM	12	CI	14	1	19L0883-01
11/26/2019			Harris	Atwells	Providence	PGM	12	CI	8.7	1	19L0883-02
12/18/2019			North Quidnessett	Forge	North Kingstown	PGM	6	CI	0	1	19L0882-01
12/18/2019			North Quidnessett	Forge	North Kingstown	PGM	6	CI	0.41	1	19L0882-02
11/1/2019			Morgan	Forest	North Providence	PGM	6	PL	0.2	1	19L0888-01
11/1/2019			Morgan	Forest	North Providence	PGM	6	PL	23	2	19L0888-02
1/14/2020		1	Brown	Phillips	North Kingstown	PGM	8	BS	7.9	1	20B0061-01
1/14/2020		1	Brown	Phillips	North Kingstown	PGM	8	BS	2	1	20B0061-02
1/31/2020		216	South Shore	Hazelwood	East Providence	PGM	6	CI	9.1	1	20B0060-01
1/31/2020		216	South Shore	Hazelwood	East Providence	PGM	6	CI	0	1	20B0060-02
1/13/2020		1864	Broad	Ferncrest	Cranston	PGM	6	CI	150	20	20B0071-01
1/13/2020		1864	Broad	Ferncrest	Cranston	PGM	6	CI	130	20	20B0071-02
1/24/2020		1804	Smith	Whipple	North Providence	PGM	8	CI	24	1	20B0066-01
1/24/2020		1804	Smith	Whipple	North Providence	PGM	8	CI	13	4	20B0066-02
1/7/2020		172	S. Spruce	Buckland	East Providence	PGM	6	PL	0	1	20B0073-01
1/7/2020		172	S. Spruce	Buckland	East Providence	PGM	6	PL	0	1	20B0073-02
1/22/2020		26	Dante	Killingly	Johnston	PGM	6	BS	2.2	1	20B0065-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
1/22/2020		26	Dante	Killingly	Johnston	PGM	6	BS	2.6	1	20B0065-02
1/21/2020		9	Corq	Cross	North Providence	PGM	6	BS	4.3	1	20B0074-01
1/21/2020		9	Corq	Cross	North Providence	PGM	6	BS	3.5	1	20B0074-02
1/21/2020		62	Massachussetts	Southern	Cranston	PGM	6	PL	1.8	1	20B0059-01
1/21/2020		62	Massachussetts	Southern	Cranston	PGM	6	PL	1.4	1	20B0059-02
1/24/2020		15	White	Simpson	North Providence	PGM	6	BS	1.7	1	20B0069-01
1/24/2020		15	White	Simpson	North Providence	PGM	6	BS	1.5	1	20B0069-02
1/27/2020		40	Manuel	Phoebe	Johnston	PGM	6	PL	0	1	20B0063-01
1/27/2020		40	Manuel	Phoebe	Johnston	PGM	6	PL	0	1	20B0063-02
1/29/2020		17	Mowry	Putnam	Johnston	PGM	6	PL	0	1	20B0075-01
1/29/2020		17	Mowry	Putnam	Johnston	PGM	6	PL	0	1	20B0075-02
12/4/2019			Windmill	Piave	North Providence	PGM	6	CI	1.1	1	20B0067-01
12/4/2019			Windmill	Piave	North Providence	PGM	6	CI	1.2	1	20B0067-02
12/5/2019			Piave	Top of Hill	North Providence	PGM	6	CI	0.81	1	20B0118-01
12/5/2019			Piave	Top of Hill	North Providence	PGM	6	CI	3.4	1	20B0118-02
12/10/2019			Smith	Resivior	Lincoln	VG	6	CI	0	1	20B0068-01
12/10/2019			Smith	Resivior	Lincoln	VG	6	CI	0	1	20B0068-02
1/27/2020			Jackson	Greenville	Johnston	PGM	6	CI	0	1	20B0072-01
1/27/2020			Jackson	Greenville	Johnston	PGM	6	CI	0	1	20B0072-02
1/8/2020			Hazelwood	Woodland	East Providence	PGM	6	PL	0	1	20B0062-01
1/8/2020			Hazelwood	Woodland	East Providence	PGM	6	PL	0	1	20B0062-02
1/25/2020			Central	Middle	Pawtucket	VG	8	BS	0	1	20C0060-01
1/25/2020			Central	Middle	Pawtucket	VG	8	BS	0	1	20C0060-02
2/24/2020			Daggett	Central	Pawtucket	VG	4	CI	0	1	20C0059-01
2/24/2020			Daggett	Central	Pawtucket	VG	4	CI	0	1	20C0059-02
2/19/2020		5	Garden City	Hillside	Cranston	PGM	6	CI	0.77	1	20C0056-01
2/19/2020		5	Garden City	Hillside	Cranston	PGM	6	CI	0.81	1	20C0056-02
2/19/2020		138	Putnam	Pinehill	Johnston	PGM	8	CI	8	1	20C0050-01
2/19/2020		138	Putnam	Pinehill	Johnston	PGM	8	CI	14	1	20C0050-02
2/5/2020			Woonasquatucket	George Waterman	North Providence	PGM	8	CI	1.4	1	20C0057-01
2/5/2020			Woonasquatucket	George Waterman	North Providence	PGM	8	CI	2.1	1	20C0057-02
2/21/2020		79	Garden City	Garden City	Cranston	PGM	6	CI	0	1	20C0061-01
2/21/2020		79	Garden City	Garden City	Cranston	PGM	6	CI	0	1	20C0061-02
3/27/2020		1494	Broad	Washington	Providence	PGM	6	CI	0	1	020D0250-01
3/27/2020		1494	Broad	Washington	Providence	PGM	6	CI	0	1	20D0250-02
3/2/2020		70	Brown	Main	North Kingstown	PGM	8	BS	7.4	1	20D0251-01
3/2/2020		70	Brown	Main	North Kingstown	PGM	8	BS	3.8	1	20D0251-02
4/6/2020			Main	Pine	Pawtucket	VG	10	CI	0.57	1	20D0246-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
4/6/2020			Main	Pine	Pawtucket	VG	10	CI	2	1	20D0246-02
3/3/2020		55	Wilson	White	Johnston	PGM	6	PL	0	1	20D0249-01
3/3/2020		55	Wilson	White	Johnston	PGM	6	PL	0	1	20D0249-02
3/5/2020		240	Division	Love	Warwick	PGM	8	CI	7.9	1	20D0240-01
3/5/2020		240	Division	Love	Warwick	PGM	8	CI	10	1	20D0240-02
3/11/2020		219	Pontiac	Mauran	Cranston	PGM	6	CI	1.4	1	20D0241-01
3/11/2020		219	Pontiac	Mauran	Cranston	PGM	6	CI	1.1	1	20D0241-02
3/13/2020			Ballou	Smith Field	Lincoln	VG	6	PL	0	1	20D0242-01
3/13/2020			Ballou	Smith Field	Lincoln	VG	6	PL	0	1	20D0242-02
2/24/2020			Park	Ormond	Woonsocket	VG	8	CI	0	1	20D0243-01
2/24/2020			Park	Ormond	Woonsocket	VG	8	CI	0	1	20D0243-02
3/11/2020			Smith Field	Walker	Lincoln	VG	6	CI	0	1	20D0245-01
3/11/2020			Smith Field	Walker	Lincoln	VG	6	CI	0	1	20D0245-02
3/3/2020		10	Loxley		Johnston	PGM	6	PL	0	1	20D0244-01
3/3/2020		10	Loxley		Johnston	PGM	6	PL	0	1	20D0244-02
2/12/2020			Goff	Pine	Pawtucket	VG	12	CI	0.72	1	20D0248-01
2/12/2020			Goff	Pine	Pawtucket	VG	12	CI	0.55	1	20D0248-02
3/23/2020			Brunswick	Smith Field	Lincoln	VG	6	CI	0	1	20D0247-01
3/23/2020			Brunswick	Smith Field	Lincoln	VG	6	CI	0	1	20D0247-02
4/23/2020			Randall	Cranston	Cranston	PGM	6	CI	4.7	1	20D0991-01
4/23/2020			Randall	Cranston	Cranston	PGM	6	CI	1.9	1	20D0991-02
4/7/2020			Waterman	Apulia	Providence	PGM	8	CI	6.2	1	20D0993-01
4/7/2020			Waterman	Apulia	Providence	PGM	8	CI	2.3	1	20D0993-02
4/17/2020			Mineral Spring	Friendship	Providence	PGM	6	CI	4.9	1	20D0990-01
4/17/2020			Mineral Spring	Friendship	Providence	PGM	6	CI	1.1	1	20D0990-02
4/7/2020		145	North Broadway		East Providence	PGM	8	BS	140	20	20D0994-01
4/7/2020		145	North Broadway		East Providence	PGM	8	BS	600	40	20D0994-02
4/10/2020		220	Westminister	Eddy	Providence	PGM	6	BS	1.2	1	20D0992-01
4/10/2020		220	Westminister	Eddy	Providence	PGM	6	BS	0	1	20D0992-02
4/28/2020			North Howard	Mineral Spring	North Providence	PGM	6	CI	0.45	1	20E0099-01
4/28/2020			North Howard	Mineral Spring	North Providence	PGM	6	CI	0.36	1	20E0099-02
4/23/2020			Beech	Mapleton	Cranston	PGM	12	CI	7.1	5	20E0100-01
4/23/2020			Beech	Mapleton	Cranston	PGM	12	CI	5.8	1	20E0100-02
5/18/2020		531	Wayland		Providence	PGM	6	CI	1.8	1	20F0069-01
5/18/2020		531	Wayland		Providence	PGM	6	CI	0.62	1	20F0069-02
5/13/2020		321	Taber	Emeline	Providence	PGM	6	CI	6.7	1	20F0039-01
5/13/2020		321	Taber	Emeline	Providence	PGM	6	CI	31	4	20F0039-02
5/4/2020			Bradford	Atwells	Providence	PGM	6	PL	0.5	1	20F0040-01

Wipe Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Sample result in ug/100cm2	Detection limit	Lab ID Number
5/4/2020			Bradford	Atwells	Providence	PGM	6	PL	0.42	1	20F0040-02
5/19/2020			Barker	Atwells	Providence	PGM	6	BS	10	1	20F0035-01
5/19/2020			Barker	Atwells	Providence	PGM	6	BS	2.4	1	20F0035-02
5/12/2020			Wayland	Upton	Providence	PGM	6	CI	0.72	1	20F0028-01
5/12/2020			Wayland	Upton	Providence	PGM	6	CI	0.63	1	20F0028-02
5/14/2020		184	Broad	Caher	Providence	PGM	4	CI	2.9	1	20F0042-01
5/14/2020		184	Broad	Caher	Providence	PGM	4	CI	1	1	20F0042-02
5/11/2020		145	Dyerville	Merino	Providence	PGM	6	BS	0	1	20F0041-01
5/11/2020		145	Dyerville	Merino	Providence	PGM	6	BS	0	1	20F0041-02
5/11/2020			Dean	Atwells	Providence	PGM	6	BS	6.9	1	20F0037-01
5/11/2020			Dean	Atwells	Providence	PGM	6	BS	14	2	20F0037-02
5/18/2020		278	Niagara	Sackett	Providence	PGM	6	BS	1500	200	20F0038-01
5/18/2020		278	Niagara	Sackett	Providence	PGM	6	BS	4900	400	20F0038-02

Liquid Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Result in mg/kg	Detection limit	Lab ID Number	Comments
7/15/2015			Main	Brown	warren	BWG	10	ci	3,290.0	250	1507325-01	8# line being
12/15/2015		1	Financial Plaza		Providence	PGM	6	bs	4,350.0	990	1512469-01	
12/17/2015		593	Eddy	Dudley	Providence	PGM			90.2	10	1512469-01	after meter set
12/17/2015		593	Eddy	Dudley	Providence	PGM			96.4	10	1512469-02	before meter set
1/8/2016		642	Allens Ave	Driveway	Providence	PGM		ws	50.5	5	1601146-01	drip near cng station
1/8/2016	G-5	259	Wampanoag Trail	99# Primary Run	East Providence	PGM		ws	58.9	5	1601159-01	200# to 99#
1/8/2016	G-5	259	Wampanoag Trail	99# Secondary Run	East Providence	PGM		ws	41.1	5	1601159-02	99# to 5#
1/8/2016	R306	642	Allens	Primary 10# run	Providence	PGM			56.9	5	1601169-02	Street Drip
1/8/2016	R308	642	Allens	Primary 7# run	Providence	PGM			13.2	5	1601169-03	Street Drip
1/8/2016	R308	642	Allens	secondary 7# run	Providence	PGM			16.6	5	1601169-04	Street Drip
1/8/2016	R105		Brook	George	Providence	PGM			3,840.0	1,500	1601169-05	99# to 35#
1/8/2016	R008		Brook	George	Providence	PGM			0.0	1	1601169-07	35# to LP
1/8/2016	R008		Brook	George	Providence	PGM			0.0	1	1601169-08	35# to LP
1/11/2016		642	Allens Ave		Providence	PGM			56.9	5	1601169-02	Street Drip
1/11/2016	R105		Brook	George	Providence	PGM			3,840.0	495	1601169-05	99# to 35#
1/12/2016		593	Eddy		Providence				90.3	10	1601197-06	boiler service strainer
1/12/2016			Wampanoag Trail		East Providence				59.5	5	1601215-01	service strainer
1/13/2016			Taunton	Commercial	East Providence	PGM			37.9	5	1601237-01	drip leg
1/15/2016		642	Allens Ave	Driveway	Providence	PGM		ws	53.9	5	1601304-01	drip near cng station
1/15/2016			North Main	Doyle	Providence	PGM			13,700.0	990	1601305-01	drip
1/15/2016		642	Allens Ave	Driveway	Providence	PGM		ws	50.5	5		drip near cng station
1/19/2016		593	Eddy		Providence				82.9	10	1601351-01	boiler service strainer
1/19/2016		1	Financial Plaza		Providence				3,240.0	1,000	1601358-01	drip leg
1/20/2016			South Main	College	Providence				11,000.0	1,000	1601395-01	Street Drip
1/21/2016			North Main	Doyle	Providence	PGM			14,500.0	5,000	1601416-01	drip
1/21/2016			Station Street		Cranston				329.0	50	1601417-01	Regulator Pit - Street Drip
1/21/2016		642	Allens Ave	Driveway	Providence				249.0	20	1601418-01	Street Drip
1/26/2016		593	Eddy		Providence				65.3	10	1601476-01	boiler service strainer
1/28/2016		642	Allens Ave	Driveway	Providence				73.0	10	1601543-01	Street Drip
1/28/2016			North Main	Doyle	Providence				12,300.0	962	1601544-01	drip
1/28/2016			South Main	College	Providence				12,800.0	971	1601545-01	Street Drip
2/1/2016		1	Financial Plaza		Providence				2,610.0	245	1602005-01	drip leg
2/1/2016		500	Allens Ave		Providence				29,600.0	4,850	1602013-01	Street Drip
2/2/2016		593	Eddy St		Providence				83.5	10	1602037-01	boiler service strainer
2/4/2016		670	Allens Ave		Providence				91.7	10	1602141-01	CNG Facility

Liquid Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Result in mg/kg	Detection limit	Lab ID Number	Comments
2/4/2016			North Main	Doyle	Providence				15,200.0	990	1602142-01	drip
2/4/2016			South Main	College	Providence				11,600.0	1,000	1602143-01	strete drip
2/4/2016		642	Allens Ave		Providence				299.0	49	1602144-01	Street drip
2/9/2016		593	Eddy		Providence				77.0	10	1602183-01	boiler service strainer
2/11/2016			Doyle Ave	Tabor Ave	Providence				2,070.0	250	1602263-01	Street Drip
2/11/2016			North Main	Doyle	Providence				16,500.0	980	1602264-01	drip
2/11/2016			South Main	College	Providence				6,850.0	485	1602265-01	Street drop
2/11/2016		642	Allens Ave		Providence				91.1	10	1602266-01	Street drip
2/11/2016		500	Allens Ave		Providence				9,110.0	971	1602267-01	Street Drip
2/11/2016			Taunton	Commercial	East Providence				6,980.0	495	1602268-01	Street Drip
2/12/2016		1	West Exchange		Providence				24,800.0	4,810	1602283-01	service strainer
2/16/2016		593	Eddy		Providence				84.5	5	1602317-01	boiler service strainer
2/18/2016			South Main	College	Providence				8,100.0	910	16B0866-01	Street drip
2/18/2016		642	Allens Ave		Providence				73.0	25	16B0867-01	Street drip
2/18/2016			Doyle Ave	Tabor Ave	Providence				2,300.0	200	16B1012-01	Street drip
2/18/2016		500	Allens Ave		Providence				8,600.0	990	16B1014-01	Street Drip
2/18/2016			North Main	Doyle	Providence				8,200.0	990	16B1015-01	drip
2/18/2016			Taunton	Commercial	East Providence				14,000.0	2,000	16B1020-01	Street Drip
2/22/2016		825	Chalkstone		Providence				15,000.0	2,000	16B0911-01	particulate filter
2/23/2016		593	Eddy		Providence				59.0	20	16B0974-01	boiler service strainer
2/24/2016		70	Ship		Providence				10,000.0	940	16B1016-01	service strainer
2/24/2016		247	Hope		Providence				36,000.0	4,000	16B1018-01	particulate filter
2/25/2016		642	Allens Ave		Providence				910.0	100	16B1086-01	Street Drip
2/25/2016			South Main	College	Providence				7,600.0	1,000	16B1088-01	Street drip
2/25/2016			North Main	Doyle	Providence				18,000.0	2,000	16B1090-01	drip
2/29/2016		1	Financial Plaza		Providence				1,750.0	100	1602617-01	drip leg
2/29/2016		1	Sabin		Providence				45,000.0	5,000	16C0062-01	coalescing filter
3/3/2016		642	Allens Ave		Providence				140.0	9	1603067-01	Street Drip
3/3/2016			North Main	Doyle	Providence				6,630.0	455	1603068-01	Street Drip
3/3/2016		500	Allens Ave		Providence				8,090.0	455	1603069-01	Street Drip
3/9/2016		144	Allens Ave		Providence				17.8	1	1603184-01	meter set
3/9/2016		642	Allens Ave		Providence				391.0	20	1603185-01	Street Drip
3/15/2016		593	Eddy		Providence				55.3	5	1603345-01	boiler service strainer
3/16/2016		593	Eddy		Providence				445.0	50	1603399-01	boiler service strainer
3/18/2016		1160	Cranston		Cranston				357.0	50	1603464-01	particulate filter

Liquid Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Result in mg/kg	Detection limit	Lab ID Number	Comments
3/18/2016		1160	Cranston		Cranston				56.1	5	1603488-01	drip leg
3/21/2016		31	Salmon		Providence				32.7	5	1603531-01	drip leg
3/21/2016			Taunton Ave	Commercial Way	Providence				7,520.0	490	1603568-01	Street Drip
3/22/2016		593	Eddy St		Providence				66.9	10	1603537-01	boiler service strainer
3/23/2016			North Main	Doyle	Providence				9,740.0	495	1603569-01	Street Drip
3/23/2016			South Main	College	Providence				7,090.0	500	1603570-01	Street Drip
3/23/2016		642	Allens Ave		Providence				306.0	25	1603571-01	Street Drip
3/23/2016		1	Financial Plaza		Providence				1,570.0	100	1603572-01	drip leg
3/28/2016		338	Allens Ave		Providence				91.1	10	1603677-01	Regulator
3/29/2016		1160	Cranston		Cranston				28.9	1	1603689-01	particulate filter
3/29/2016		593	Eddy St		Providence				71.3	5	1603697-01	boiler service strainer
3/29/2016		593	Eddy St		Providence				13.5	1	1603704-01	boiler service strainer
3/30/2016		1	Sabin St		Providence				50,400.0	10,000	1603745-01	coalescing filter
3/30/2016			Barrington Gate Station		Warren				111,000.0	22,700	1603746-01	25 psig outlet
3/31/2016		31	Salmon		Providence				31.6	1	1603775-01	drip leg
3/31/2016		1595	Mendon Road		Cumberland				0.0	1	1603811-01	boil off compressor - 1
3/31/2016		121	Terminal Road		Providence				0.0	1	1603812-01	boil off compressor - C1
3/31/2016		53	South County Trail		Exeter				0.0	1	1603813-02	boil off compressor - 101
4/5/2016		593	Eddy St		Providence				77.3	10	1604051-01	boiler service strainer
4/6/2016		75	Chestnut St		Providence				135.0	20	1604099-01	Regulator
4/6/2016		642	Allens Ave		Providence				1,360.0	101	1604121-01	Street Drip
4/6/2016			South Main	College	Providence				10,800.0	1,000	1604122-01	Street Drip
4/6/2016			North Main	Doyle	Providence				19,000.0	5,000	1604123-01	Street Drip
4/6/2016			Taunton Ave	Commercial Way	Providence				18,700.0	4,900	1604124-01	Street Drip
4/6/2016			Barrington Gate Station		Warren				23,700.0	5,050	1604125-01	25 psig outlet
4/7/2016		33	Broad St		Providence				15,600.0	2,500	1604141-01	Regulator
4/12/2016		593	Eddy St		Providence				82.1	10	1604268-01	boiler service strainer
4/14/2016		642	Allens Ave		Providence				1,800.0	198	1604385-01	Street Drip
4/14/2016			North Main	Doyle	Providence				9,870.0	1,000	1604386-01	Street Drip
4/18/2016		1	Sabin St		Providence				42,600.0	4,950	1604474-01	coalescing filter
4/18/2016		1160	Cranston		Cranston				644.0	62	1604475-01	particulate filter
4/18/2016		1	Financial Plaza		Providence				1,850.0	248	1604476-01	drip leg
4/19/2016	R105		Brook	George	Warren				5,090.0	472	1604509-01	99# to 35#
4/19/2016		642	Allens Ave	Primary 7# run	Providence				17.9	1	1604510-01	Street Drip
4/19/2016		642	Allens Ave		Providence				56.7	5	1604510-02	Street Drip

Liquid Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Result in mg/kg	Detection limit	Lab ID Number	Comments
4/19/2016		593	Eddy St		Providence				73.4	1	1604511-01	boiler service strainer
4/20/2016			Taunton Ave	Commercial Way	Providence				12,400.0	2,480	1604553-01	Street Drip
4/20/2016		500	Allens Ave		Providence				22,700.0	2,500	1604554-01	Street Drip
4/20/2016			South Main	College	Providence				9,940.0	990	1604555-01	Street Drip
4/20/2016		642	Allens Ave		Providence				573.0	50	1604556-01	Street Drip
4/20/2016			North Main	Doyle	Providence				9,490.0	990	1604557-01	Street Drip
4/26/2016		593	Eddy St		Providence				67.5	10	1604686-01	boiler service strainer
5/2/2016		270	Woonasquatucket Ave		Providence				1,760.0	198	1605045-01	dead end stub
5/17/2016		593	Eddy St		Providence				62.6	10	1605459-01	boiler service strainer
5/17/2016		1	Sabin St		Providence				48,500.0	2,480	1605461-01	coalescing filter
5/18/2016			North Main	Doyle	Providence				13,500.0	990	1605497-01	Street Drip
5/18/2016		500	Allens Ave		Providence				27,100.0	2,480	1605498-01	Street Drip
5/18/2016		642	Allens Ave		Providence				5,890.0	495	1605499-01	Street Drip
5/31/2016		593	Eddy St		Providence				61.7	10	1605792-01	boiler service strainer
6/9/2016		1	Sabin St		Providence				42,300.0	5,000	1606235-01	coalescing filter
6/13/2016		670	North Main		Providence				1,350.0	98	1606297-01	Regulator
6/14/2016		593	Eddy St		Providence				71.4	10	1606333-01	boiler service strainer
6/15/2016		642	Allens Ave		Providence				6,880.0	490	1606417-01	Street Drip
6/15/2016		50	Randall St		Providence				103.0	10	1606418-01	Regulator
6/15/2016		20	Randall St		Providence				567.0	49	1606419-01	Regulator
6/20/2016		47	Molter St		Cranston				622.0	99	1606496-01	meter set
6/28/2016		593	Eddy St		Providence				81.5	10	1606698-01	boiler service strainer
6/30/2016		160	Pawtuxet Ave		Cranston				6,050.0	495	1606778-01	Regulator
6/30/2016		500	Allens Ave		Providence				109.0	10	1606786-01	Street Drip
7/3/2016			Doyle Ave	Tabor Ave	Providence				1,550.0	99	1607297-01	LP outlet of 99# Reg 155
7/12/2016		1	Sabin St		Providence				36,200.0	4,950	1607230-01	coalescing filter
7/12/2016		33	Broad St		Providence				16,200.0	2,450	1607231-01	Regulator
7/13/2016		642	Allens Ave		Providence				2,670.0	495	1607293-01	Street Drip
7/13/2016		655	Allens Ave		Providence				33,400.0	4,900	1607294-01	Street Drip
7/13/2016		500	Allens Ave		Providence				32,200.0	4,950	1607295-01	Street Drip
7/13/2016			South Main	College	Providence				15,000.0	990	1607296-01	Street Drip
7/13/2016			North Main	Doyle	Providence				9,870.0	970	1607298-01	Street Drip
7/13/2016			Taunton Ave	Commercial Way	Providence				10,200.0	990	1607299-01	Street Drip
7/13/2016			Hartford Ave	Bowlett St	Providence				1,810.0	490	1607300-01	Street Drip
7/15/2016		593	Eddy St		Providence				97.7	10	1607365-01	boiler service strainer

Liquid Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Result in mg/kg	Detection limit	Lab ID Number	Comments
7/26/2016		593	Eddy St		Providence				73.6	10	1607593-01	boiler service strainer
8/8/2016		593	Eddy St		Providence				116.0	10	16082016-01	boiler service strainer
8/11/2016		655	Allens Ave		Providence				45,800.0	5,000	1608303-01	Street Drip
8/11/2016			North Main	Doyle	Providence				18,700.0	1,000	1608304-01	Street Drip
8/12/2016		1	Sabin St		Providence				50,500.0	5,000	1608349-01	coalescing filter
8/12/2016		33	Broad St		Providence				18.1	1	1608350-01	Regulator
8/23/2016		593	Eddy St		Providence				121.0	10	1608628-01	boiler service strainer
9/6/2016		593	Eddy St		Providence				150.0	10	1609074-01	boiler service strainer
9/8/2016		655	Allens Ave		Providence				50,800.0	5,000	1609138-01	Street Drip
9/8/2016		500	Allens Ave		Providence				45,000.0	4,950	1609139-01	Street Drip
9/8/2016			North Main	Doyle	Providence				13,500.0	2,000	1609140-01	Street Drip
9/9/2016		1	Sabin St		Providence				41,900.0	4,900	1609199-01	coalescing filter
9/16/2016			South Main	College	Providence				173,000.0	19,800	1609361-01	Street Drip
9/20/2016		593	Eddy St		Providence				134.0	10	1609412-01	boiler service strainer
9/26/2016		642	Allens Ave		Providence				42.1	5	1609546-01	R-306 Primary 10# Run
9/28/2016		1	Providence Place		Providence				14,800.0	990	1609623-01	particulate filter
9/29/2016		1	Sabin St		Providence				49,100.0	8,770	1609653-01	coalescing filter
10/4/2016		593	Eddy St		Providence				135.0	10	1610022-01	boiler service strainer
10/6/2016			North Main	Doyle	Providence				17,100.0	1,000	1610114-01	Street Drip
10/6/2016		655	Allens Ave		Providence				50,000.0	5,000	1610115-01	Street Drip
10/18/2016		593	Eddy St		Providence				125.0	10	1610355-01	boiler service strainer
10/31/2016		642	Allens Ave		Providence				15,400.0	980	1610703-01	Street Drip
10/31/2016		642	Allens Ave		Providence				61,300.0	9,900	1610704-01	10# Drip 1 (secondary)
10/31/2016		655	Allens Ave		Providence				65,200.0	10,000	1610705-01	Street Drip
11/2/2016		1	Sabin St		Providence				45,000.0	8,200	1611034-01	coalescing filter
11/2/2016		1	Providence Place		Providence				15,400.0	1,000	1611035-01	particulate filter
11/4/2016			North Main	Doyle	Providence				11,300.0	980	1611139-01	Street Drip
11/4/2016			South Main	College	Providence				13,400.0	990	1611140-01	Street Drip
11/4/2016		50	Randall St		Providence				95.8	5	1611166-01	regulator
11/8/2016		593	Eddy St		Providence				105.0	10	1611235-01	boiler service strainer
11/9/2016		593	Eddy St		Providence				796.0	50	1611261-01	laundry service bypass
11/9/2016		593	Eddy St		Providence				175.0	10	1611262-01	laundry service strainer
11/29/2016		593	Eddy St		Providence				98.3	10	1611725-01	boiler service strainer
11/30/2016	G-		Manchester Gate Sta	Allens Ave	Providence	PGM			19.1	1	1611777-01	Vent line of regulators
12/13/2016		593	Eddy St		Providence				112.0	10	1612336-01	boiler service strainer

Liquid Samples

Sample Date	Gate or Regulator Sta.	House Number	Street Name	Cross Street Name	Town	Distribution System	Pipe Size	Pipe material	Result in mg/kg	Detection limit	Lab ID Number	Comments
12/14/2016		500	Allens Ave		Providence				7,960.0	495	1612410-01	Street Drip
12/14/2016		642	Allens Ave		Providence				209.0	20	1612411-01	Street Drip
12/14/2016			South Main	College	Providence				4,620.0	400	1612412-01	Street Drip
12/27/2016		593	Eddy St		Providence				117.0	10	1612678-01	boiler service strainer
12/28/2016		642	Allens Ave		Providence				93.6	10	1612712-01	Street Drip
12/30/2016		135	Gansett Ave		Providence				954.0	50	1612770-01	meter set
1/10/2017		593	Eddy St		Providence				93.6	10	1701151-01	boiler service strainer
1/10/2017		593	Eddy St		Providence				93.6	10	1701151-01	boiler service strainer
1/11/2017		642	Allens Ave		Providence				116.0	10	1701194-01	Street Drip
1/11/2017			south main	college	Providence				3,880.0	250	1701195-01	Street Drip
1/11/2017			North Main	Doyle	Providence				10,300.0	990	1701196-01	Street Drip
1/12/2017		1	Sabin St		Providence				12,200.0	1,430	1701230-01	coalescing filter
1/12/2017		135	Gansett Ave		Providence				445.0	49	1701231-01	hot water heater
1/12/2017		1	Providence Place		Providence				11,800.0	1,520	1701232-01	particulate filter
3/13/2017	G-	2	Allens Ave		Providence	PGM			287.0	20	1703330-01	Boiler feed line
3/17/2017	G-	2	Allens Ave		Providence	PGM			521.0	20	SC32563-01	Boiler feed line

2017 SYSTEM INTEGRITY REPORT

nationalgrid

Enterprise ***Gas Distribution Systems*** **Trend-Based Integrity Analysis**

RI

Gas Distribution Engineering
Gas Asset Management– Gas Process & Engineering

nationalgrid

Saadat Khan (631) 710-3510 Director – Gas Distribution Engineering
Leomary Bader (781) 907-2785 Manager- Gas Distribution Engineering
Aamir Khizar (631) 770-3511 Senior Engineer – Gas Distribution Engineering
Madeline Blaisdell (781) 907-4164 Assoc. Engineer – Gas Distribution Engineering

2017 SYSTEM INTEGRITY REPORT

Overall Regional Gas Distribution Integrity Assessment Summary

2017 SYSTEM INTEGRITY REPORT

Overall Regional Distribution Integrity Assessment Summary

Distribution Engineering has reviewed all of the findings in the annual Trend-Based Distribution System Integrity Analysis (*System Integrity Report*) in accordance with our Distribution Integrity Management Plan (DIMP).

Below is a summary of the individual key integrity measure results for Rhode Island.

NATIONAL GRID	
2017 System Integrity Report Summary	
REGIONS	RI
ITEMS	
• Leak Receipts	↑
• Workable Leak Backlog	↑
• LPP Main and Service Inventories	↓
• Overall Main Leak Rate	↓
• Cast Iron Main Break Rate	↓
• Steel Main Corrosion Leak Rate	↑
• Service Leak Rate	↑

2017 SYSTEM INTEGRITY REPORT

LEAK RECEIPTS, REPAIRS AND BACKLOG BY HDD TREND (Main & Service)

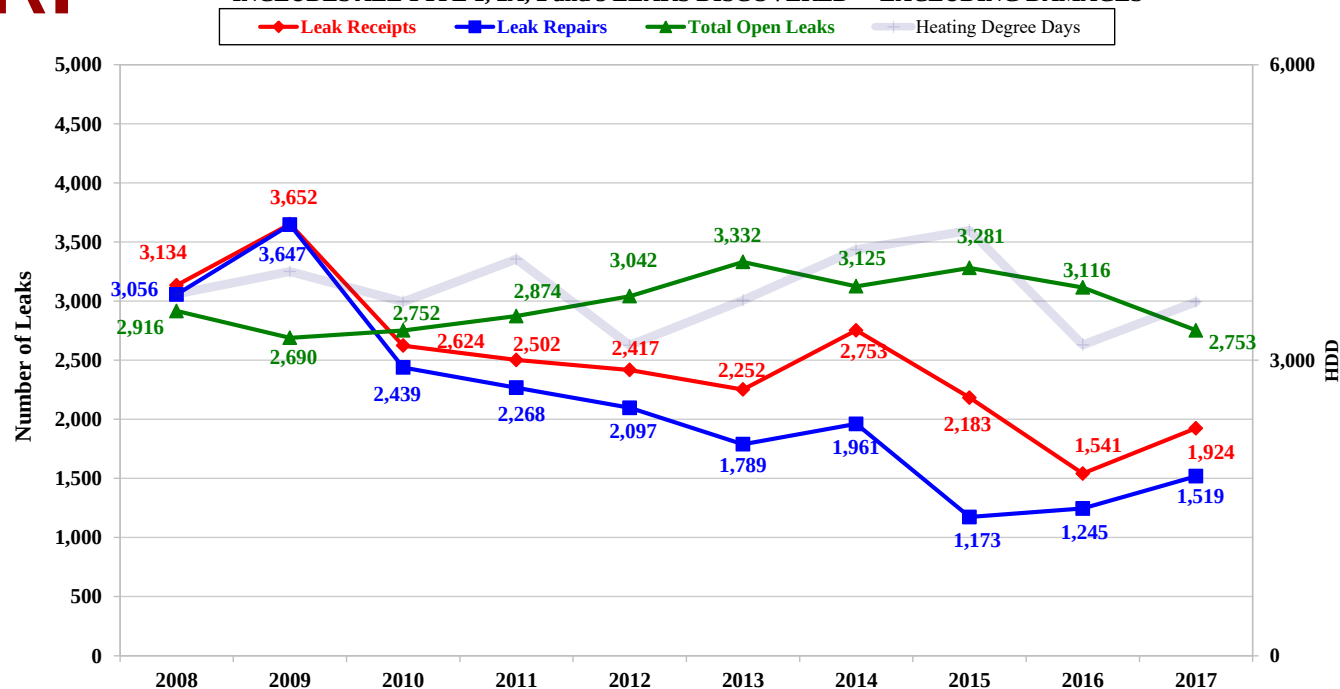
NOTE: Heating Degree Day (HDD)

2017 SYSTEM INTEGRITY REPORT

RI

TOTAL LEAK RECEIPTS, REPAIRS & BACKLOG

INCLUDES ALL TYPE 1, 2A, 2 and 3 LEAKS DISCOVERED - EXCLUDING DAMAGES



nationalgrid

Leak Receipts and Repairs and Backlog:

2017 RI Leak Repairs =

2017 RI Leak Receipts =

2017 RI Leak Backlogs =

2017 SYSTEM INTEGRITY REPORT

Overall Regional Distribution Integrity Assessment Summary

RI

Rhode Island (RI)

- Leak receipts increased.
- Workable leak backlog increased.
- Leak prone main and service inventories continue to decline steadily.
- Overall main leak rate, Cast iron main break rate, and Steel main corrosion rate decreased.
- Service leak rate increased.

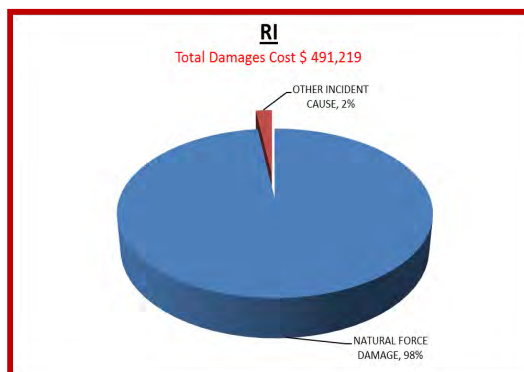
2017 SYSTEM INTEGRITY REPORT

PHMSA Reported Incidents Cost

2017 SYSTEM INTEGRITY REPORT

RI TOTAL PROPERTY DAMAGES

PHMSA Incident data from 2010 to 2017



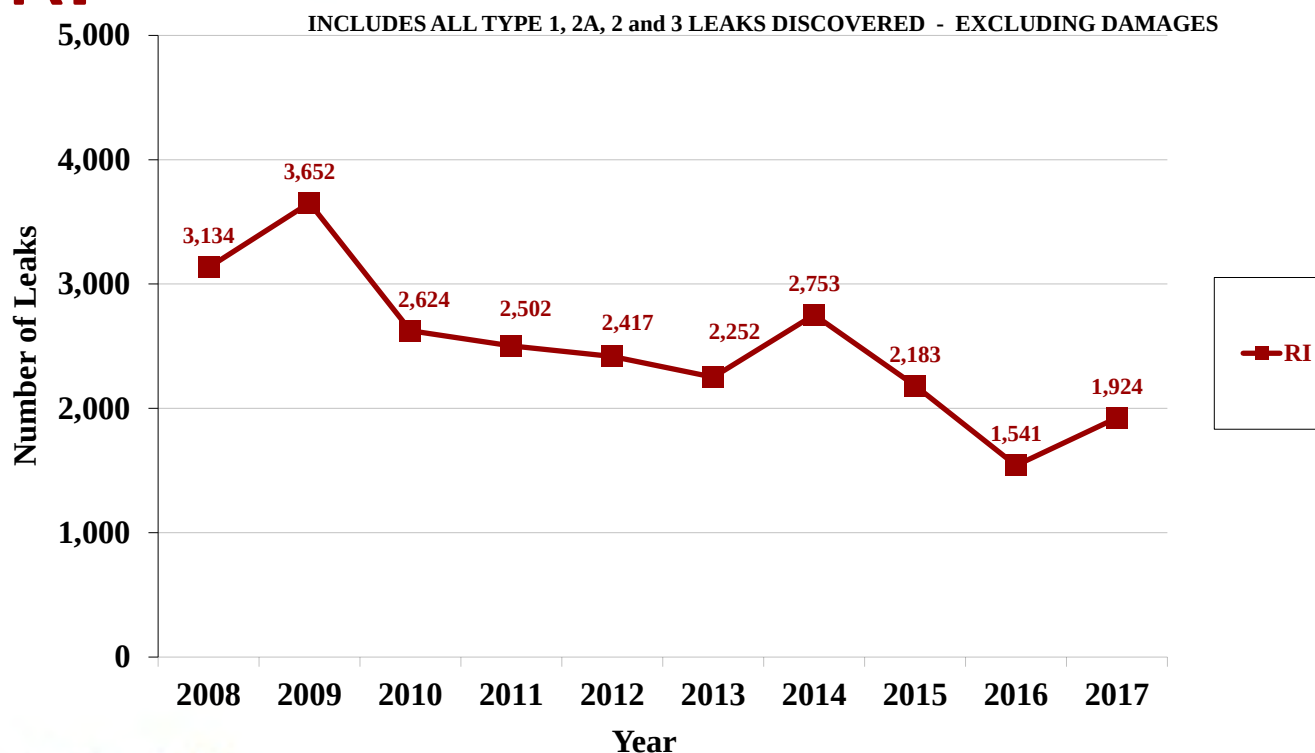
2017 SYSTEM INTEGRITY REPORT

LEAK MANAGEMENT ANALYSIS (Mains & Services)

2017 SYSTEM INTEGRITY REPORT

RI

TOTAL LEAK RECEIPTS



2017 SYSTEM INTEGRITY REPORT

2017 LEAK RECEIPTS

RI

1,924 Leak Receipts

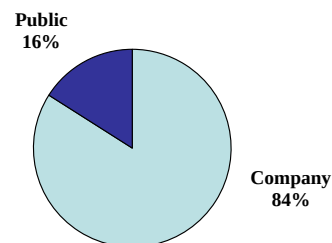
3,205 miles of Main
196,505 #'s of Services
(2,754 miles)

5,959 total miles of
pipe

*0.29 Leak Receipts
per Mile of Pipe*

2017 LEAK RECEIPTS BY DISCOVERY SOURCE (EXCLUDING DAMAGES)

RI

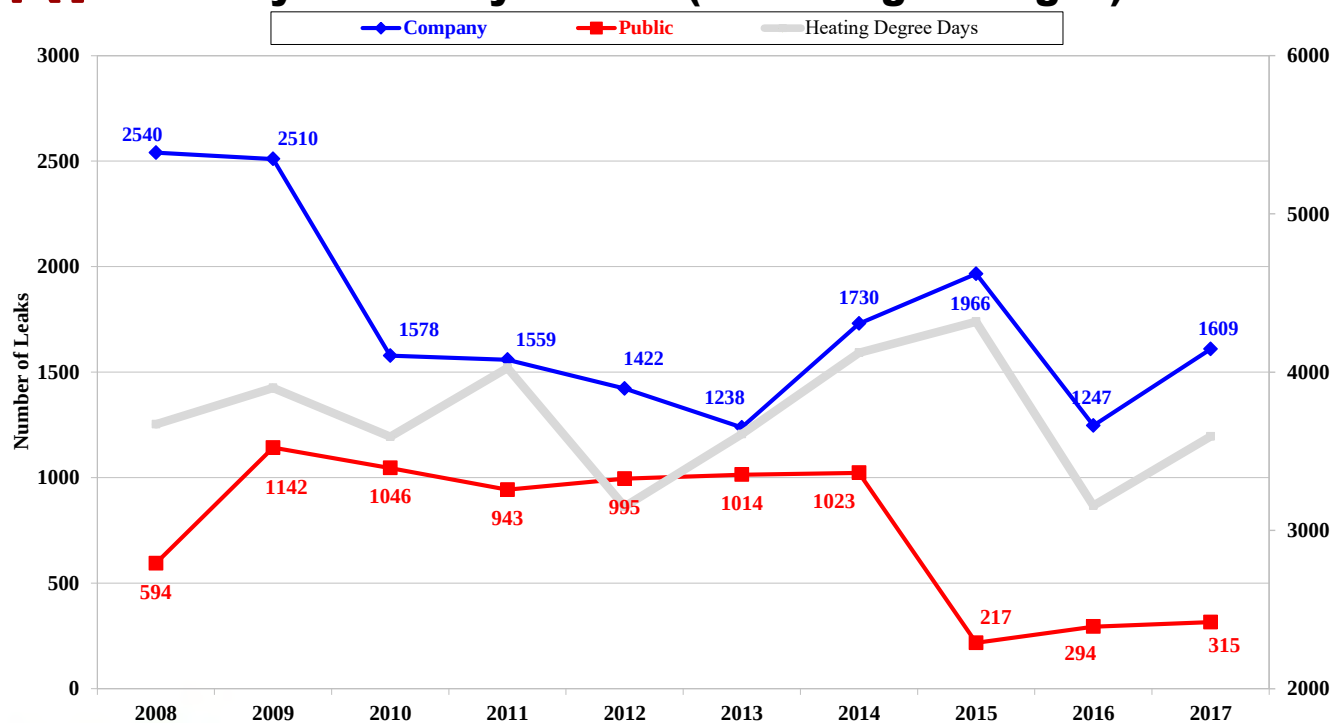


2017 SYSTEM INTEGRITY REPORT

2008 - 2017 LEAK RECEIPTS

By Discovery Source (Excluding damages)

RI

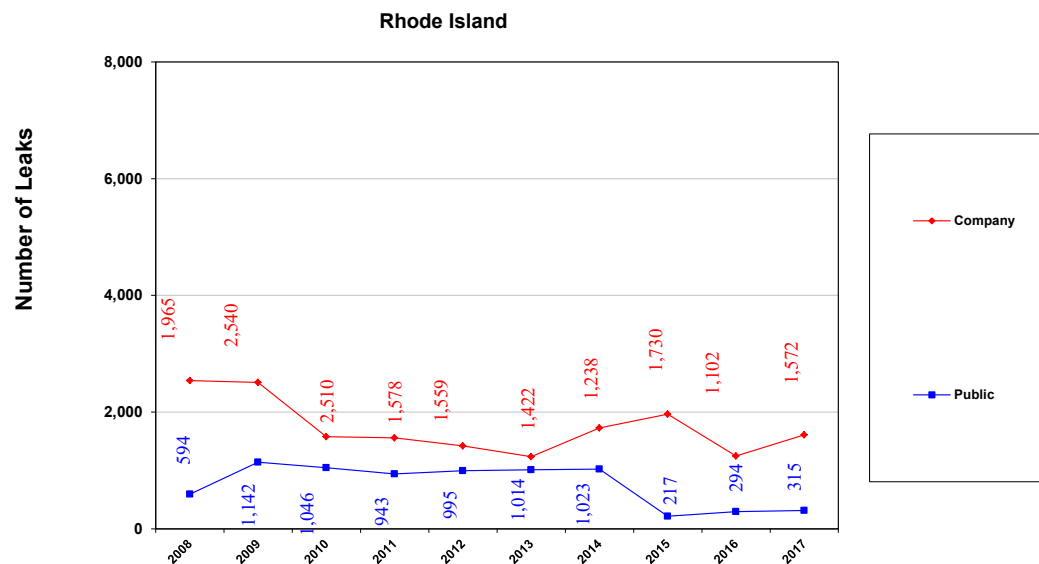


2017 SYSTEM INTEGRITY REPORT

2007 - 2017 LEAK RECEIPTS

By Discovery Source (Excluding damages)

RI

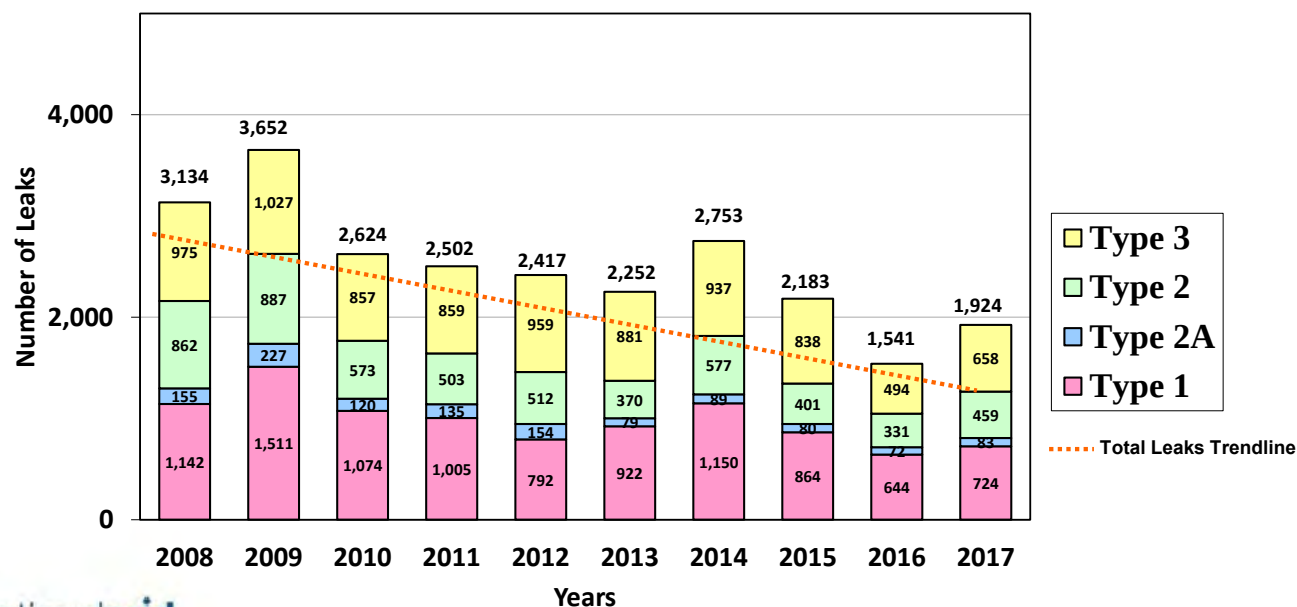


2017 SYSTEM INTEGRITY REPORT

RI LEAK RECEIPTS

By ORIGINAL Type

(Excluding Damages)

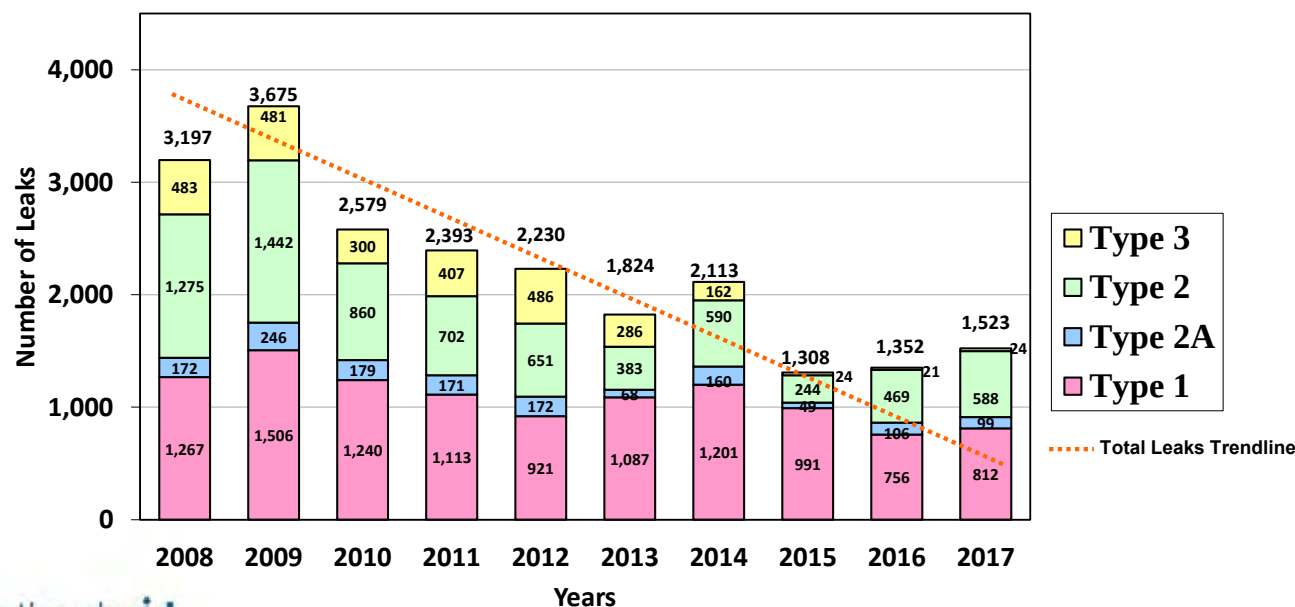


2017 SYSTEM INTEGRITY REPORT

RI

LEAKS REPAIRED By REPAIRED Type

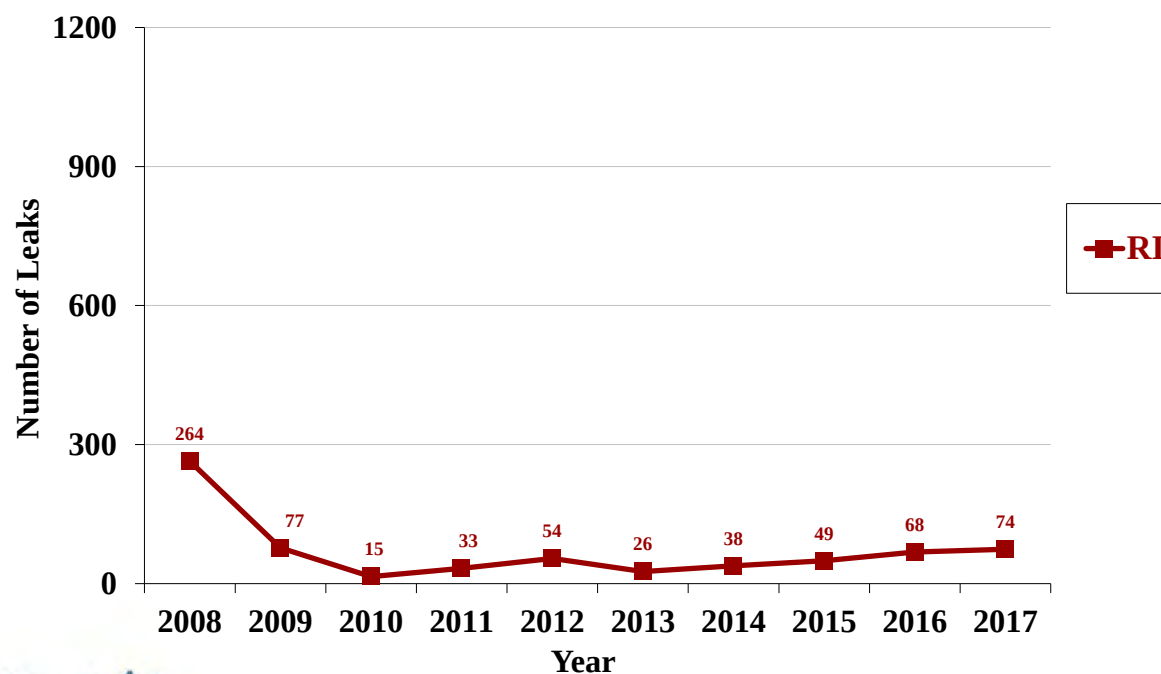
(Including Damages)



2017 SYSTEM INTEGRITY REPORT

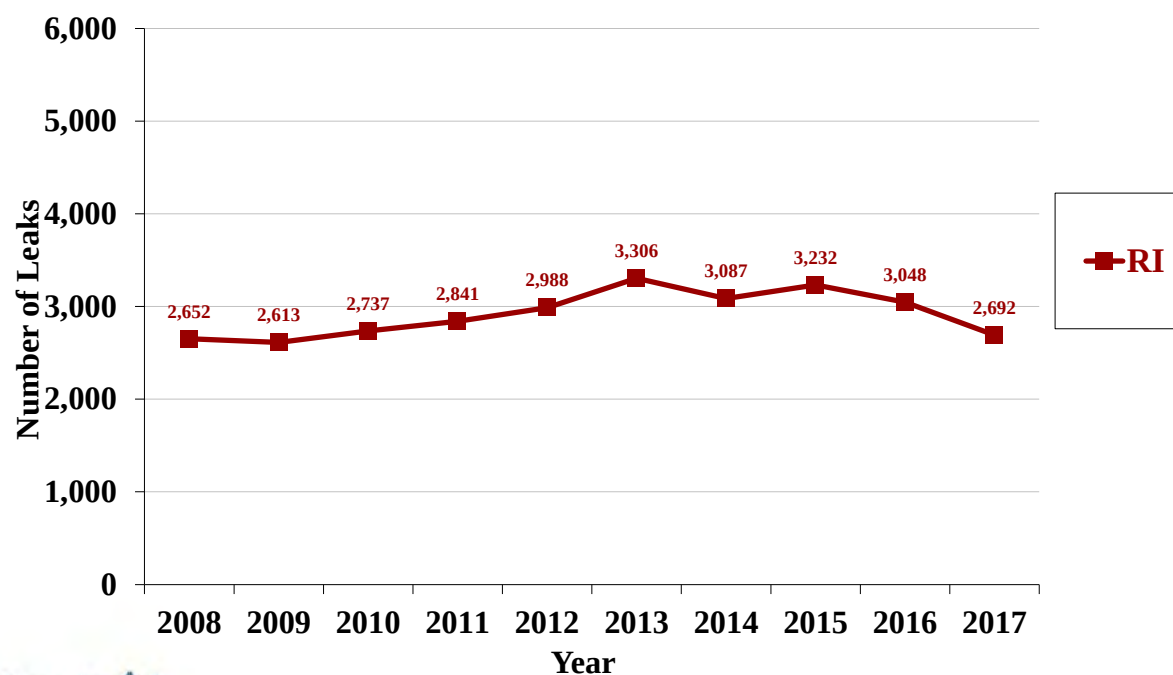
RI

YEAR-END WORKABLE LEAK BACKLOGS



2017 SYSTEM INTEGRITY REPORT

RI YEAR-END OPEN TYPE 3



2017 SYSTEM INTEGRITY REPORT

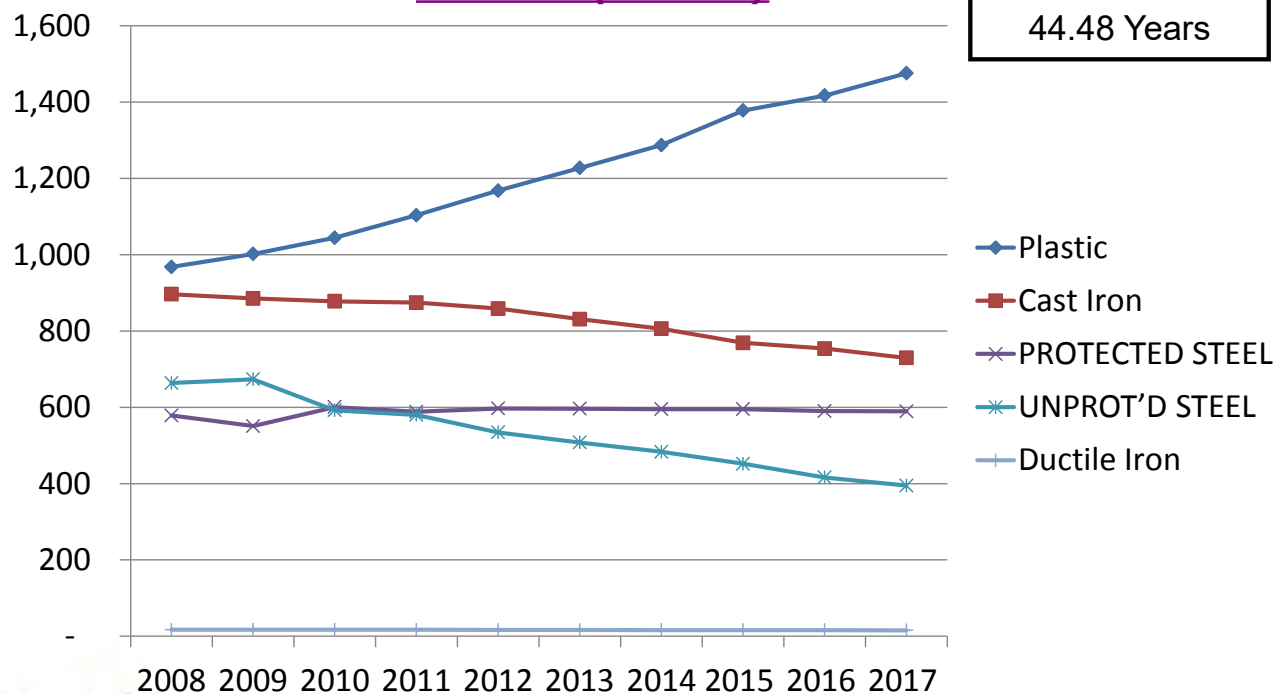
MAIN INVENTORY ANALYSIS

2017 SYSTEM INTEGRITY REPORT

RI

MAIN INVENTORY TREND (MILES)

Average Age
Of All RI
Distribution Main:
44.48 Years



nationalgrid

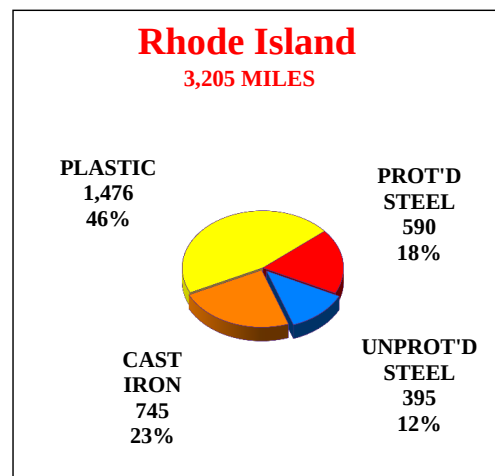
Note: See number of main breakdown in appendix (start from slide 306)

2017 SYSTEM INTEGRITY REPORT

RI

MAIN INVENTORY

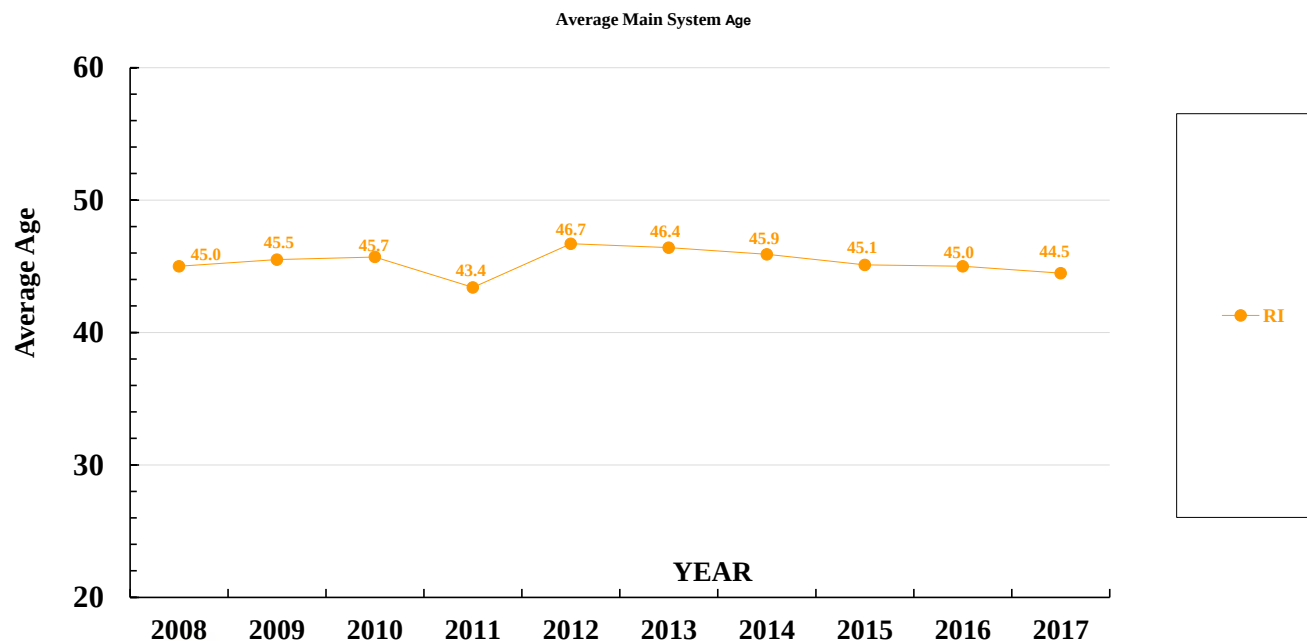
RI



2017 SYSTEM INTEGRITY REPORT

RI

National Grid Gas Distribution System
Average Age of Main by Legacy NG Company Reflects Expected
Northeast Pattern(i.e., old civilization areas and cast iron)



2017 SYSTEM INTEGRITY REPORT

RI NATIONAL GRID MAIN REPLACEMENT

Rate Case Supported "Leak-Prone" Main Replacement Levels										
Region	2017 Total Main (Miles)	2017 Leak Prone Main (Miles)	Leaks/Miles of Total Main (Repair rate)	Leaks/Miles of Leak Prone Main (Repair rate)	(5)2017 Annual "Planned" Replacement (Miles)	Planned Replacement % of Leak prone system	(5)2017 Annual "Actual" Replacement (Miles)	Actual Replacement % of Leak prone system	(5)2018 Annual "Planned" Replacement (Miles)	Years to LPP Main Elimination based on "Current" annual plan
RI	3,205	1,124	0.26	0.73	53.7	4.8%	53.6	4.8%	60.0	18

- Note:
1. Leaks per mile of total main excludes Excavation leaks.
 2. Leaks per mile of Leak-Prone main (LPP) excludes Excavation leaks and Plastic leaks.
 3. Leak-Prone Pipe = Unprotected steel (Bare & Coated) + CI/WI + A/dyl-A (MD, 1985 and prior) + Other.
 4. Miles of Leak-Prone main replaced includes all Proactive programs (Main Replacement program & System Reinforcement) and all Reactive programs (Public Works, Water Intrusion & Leak/reactive).
 5. Annual planned and actual replacement miles are CY.
 6. Data sources are 2016 & 2017 US Gas Leak Prone Pipe Replacement Programs monthly reports from Gas Resource Management CMS.

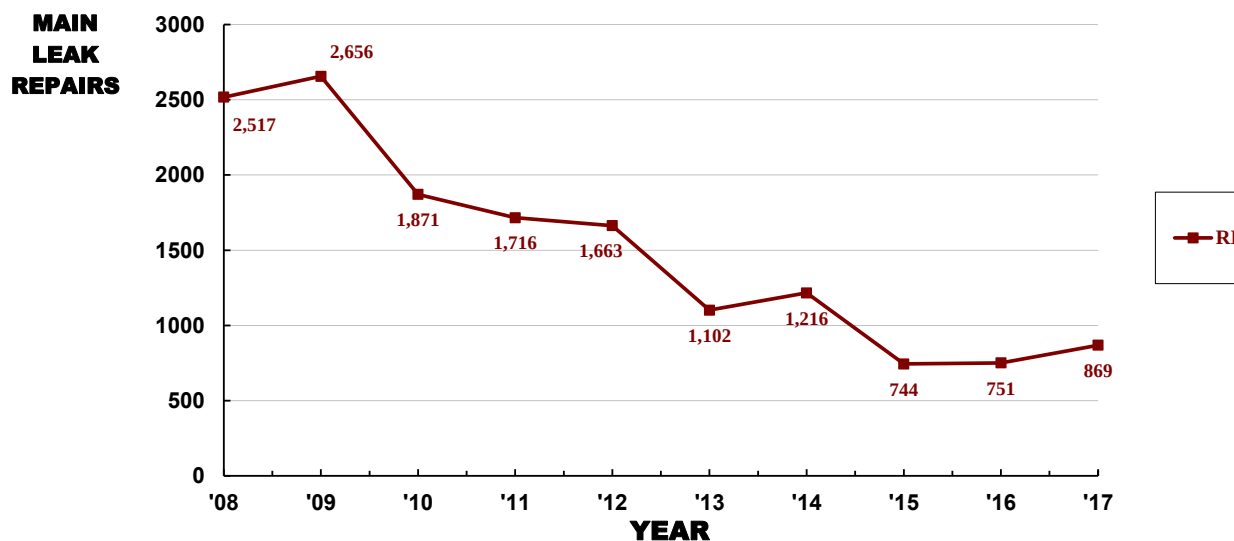
2017 SYSTEM INTEGRITY REPORT

MAIN LEAK REPAIR ANALYSIS

2017 SYSTEM INTEGRITY REPORT

RI TOTAL MAIN LEAK REPAIRS

INCLUDING Damages



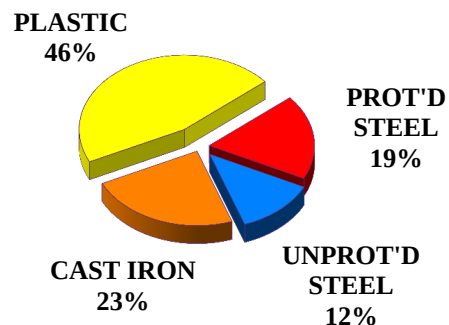
2017 SYSTEM INTEGRITY REPORT

RI

TOTAL MAIN INVENTORY COMPARED TO LEAK REPAIRS

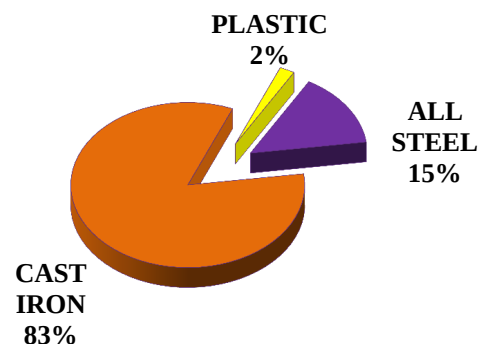
TOTAL MAIN INVENTORY BY MATERIAL

3,205 MILES



TOTAL MAIN LEAK REPAIRS BY MATERIAL

751 LEAKS (including damages)



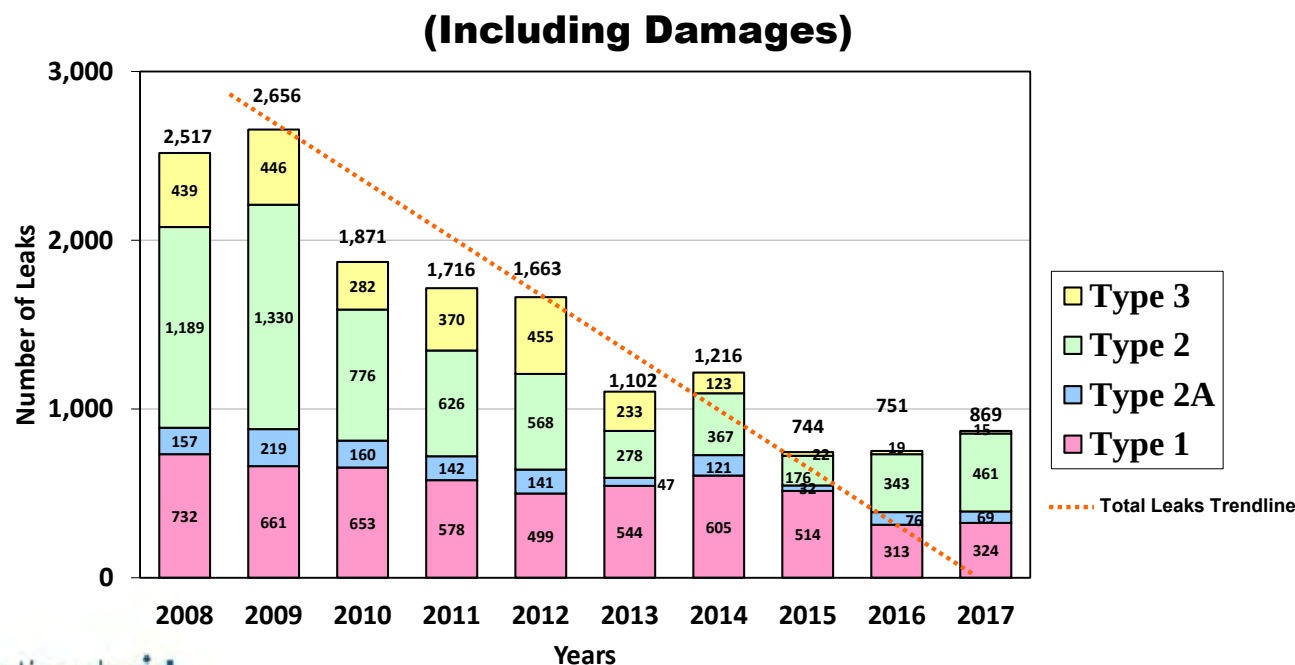
NOTE: (*) CI Leaks include Other material Leaks.
Leak Count Totals Individual Repairs.

2017 SYSTEM INTEGRITY REPORT

LEAKS REPAIRED

By Type

RI MAIN



2017 SYSTEM INTEGRITY REPORT

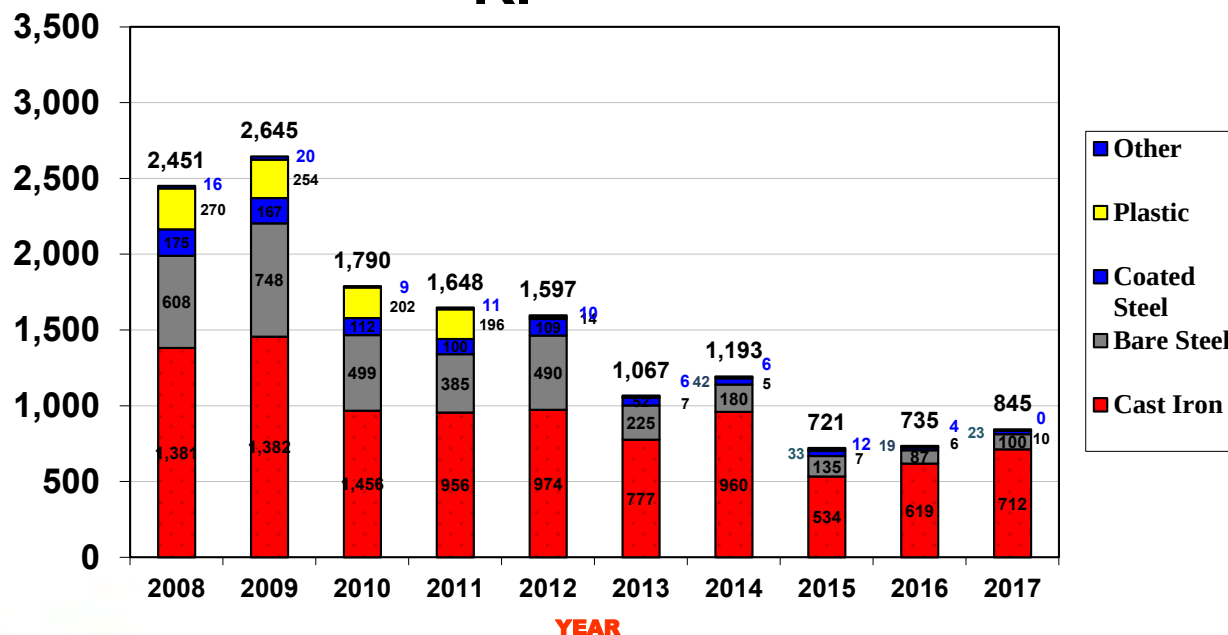
2008 - 2017 MAIN LEAK REPAIRS

RI

All Main Leak Repairs by Material
(Excluding Damages)

NUMBER OF MAIN
LEAK REPAIRS

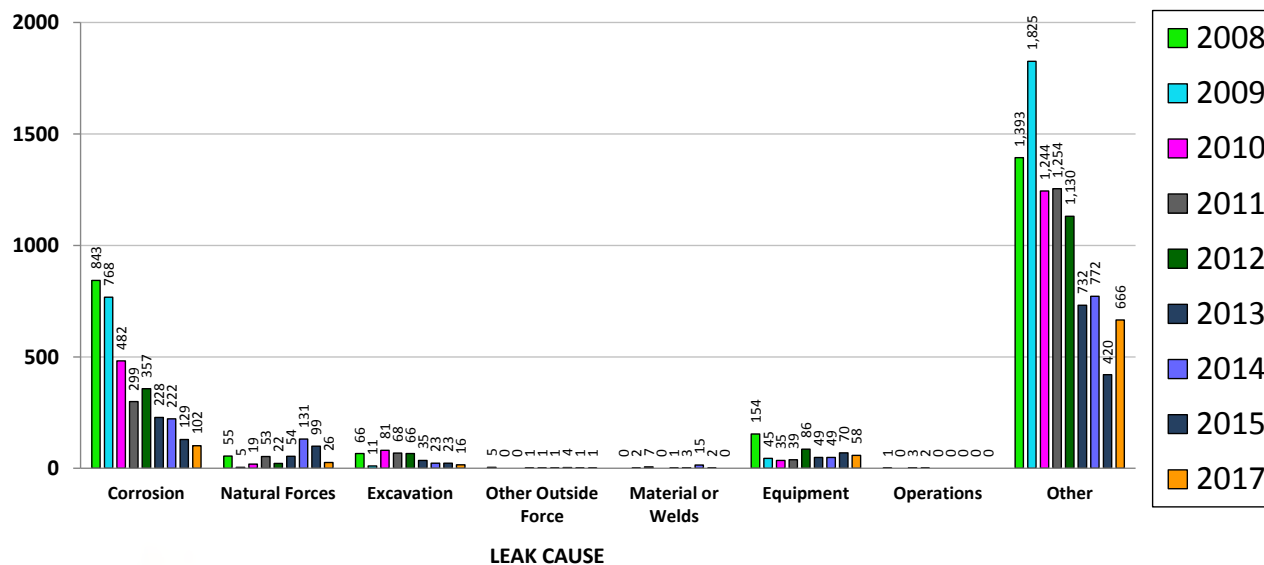
RI



2017 SYSTEM INTEGRITY REPORT

RI MAIN LEAKS REPAIRED COMPARISON BY LEAK CAUSES

LEAK REPAIRS

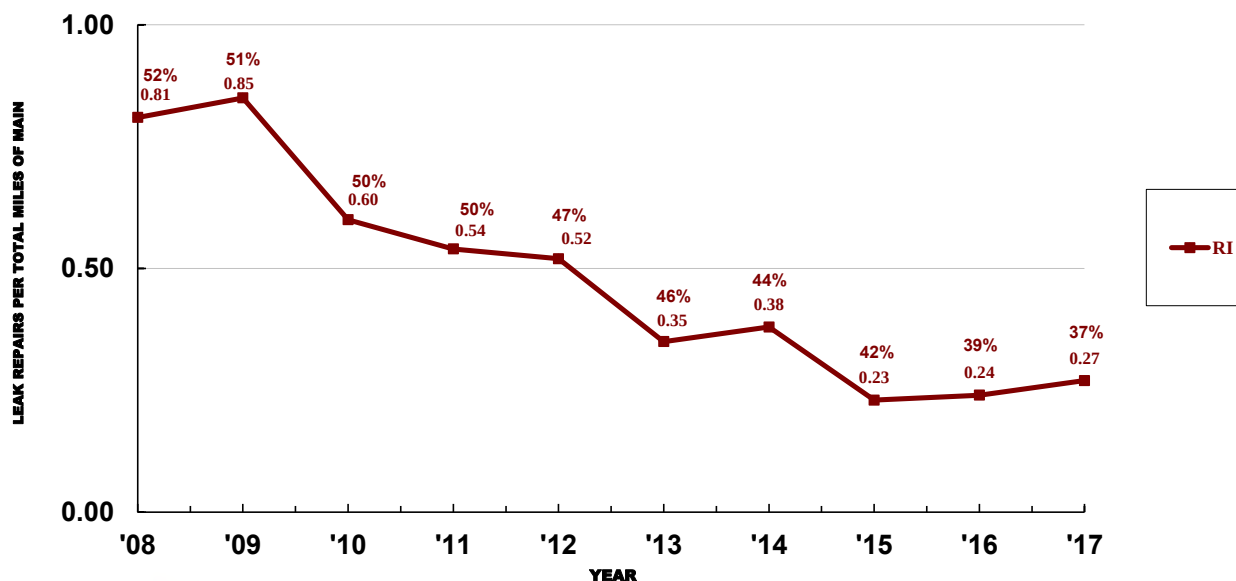


2017 SYSTEM INTEGRITY REPORT

RI TOTAL MAIN LEAK “RATES”

INCLUDING Damages

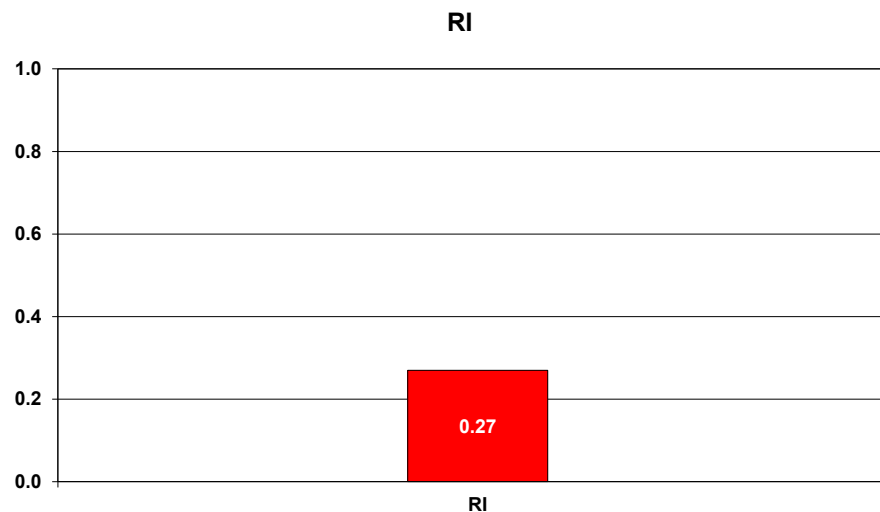
PERCENTAGES SHOWN ARE PERCENT OF LEAK-PRONE PIPE



2017 SYSTEM INTEGRITY REPORT

RI MAIN LEAK “RATES”

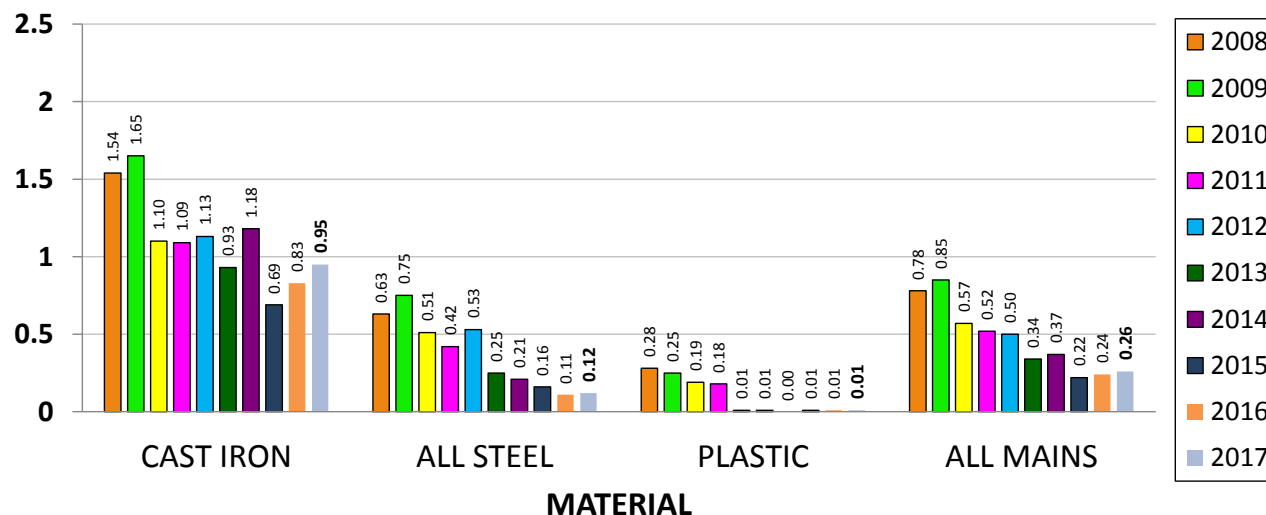
**Total Main Leak Repairs (incl. damages)
/ Mile of Total Main**



2017 SYSTEM INTEGRITY REPORT

RI MAIN LEAK “RATES” COMPARISON BY MATERIAL EXCLUDING Damages

LEAK REPAIRS
PER MILE OF MAIN



COUNTING EACH INDIVIDUAL REPAIR AS A LEAK

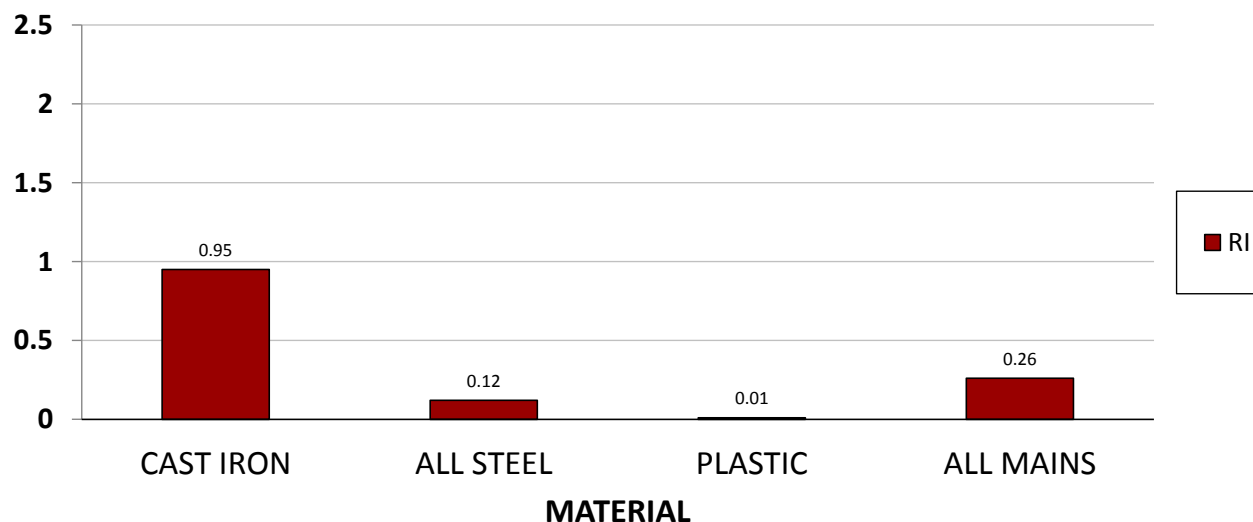
2017 SYSTEM INTEGRITY REPORT

RI

MAIN LEAK “RATES” COMPARISON BY MATERIAL

EXCLUDING Damages

LEAK REPAIRS
PER MILE OF MAIN



2017 SYSTEM INTEGRITY REPORT

2017 DETAILS OF MAIN LEAK REPAIRS



2017 SYSTEM INTEGRITY REPORT

RI

MAIN LEAK REPAIRS MATERIAL-CAUSE MATRIX

	<u>CORROSION</u>	<u>MATL/WELD</u>	<u>NAT FORCE</u>	<u>OTH OS FRC</u>	<u>EQUIPMENT</u>	<u>OPERATIONS</u>	<u>CI JT/OTHER</u>	<u>DAMAGES</u>	<u>ALL CAUSES</u>
CAST IRON	4	0	26	0	27	0	663	5	725
STEEL	98	0	0	0	22	0	3	3	126
BARE	85	0	0	0	12	0	3	2	0
COATED	13	0	0	0	10	0	0	1	24
<u>PLASTIC</u>	0	0	0	1	9	0	0	8	18
<u>OTHER</u>	0	0	0	0	0	0	0	0	0
ALL MAINS	102	0	26	1	58	0	666	16	869

COUNTING EACH INDIVIDUAL REPAIR AS A LEAK

2017 SYSTEM INTEGRITY REPORT

A CLOSER LOOK AT CAST IRON MAINS

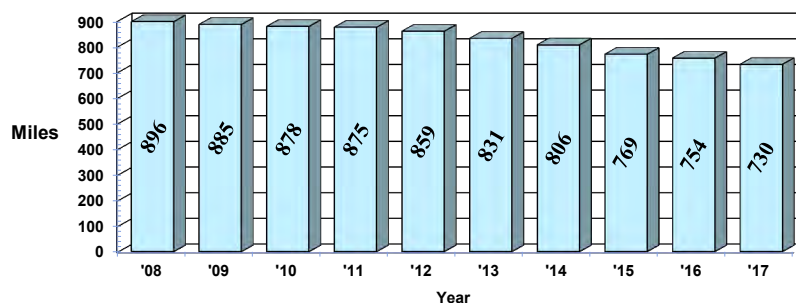


2017 SYSTEM INTEGRITY REPORT

RI

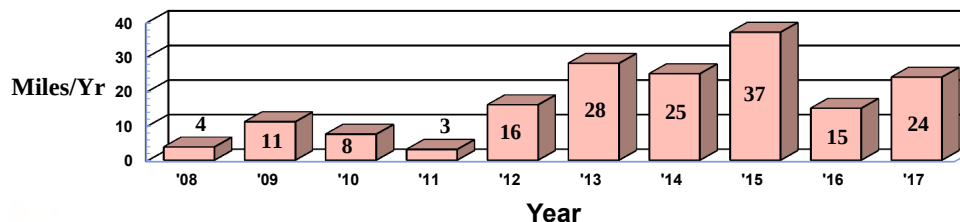
DOT-
Reported
Pipe
Inventories

CAST IRON MAIN INVENTORY



CAST IRON ATTRITION RATE

Avg 10-Yr Attrition Rate: 17.05 Miles/Year (2.34%)

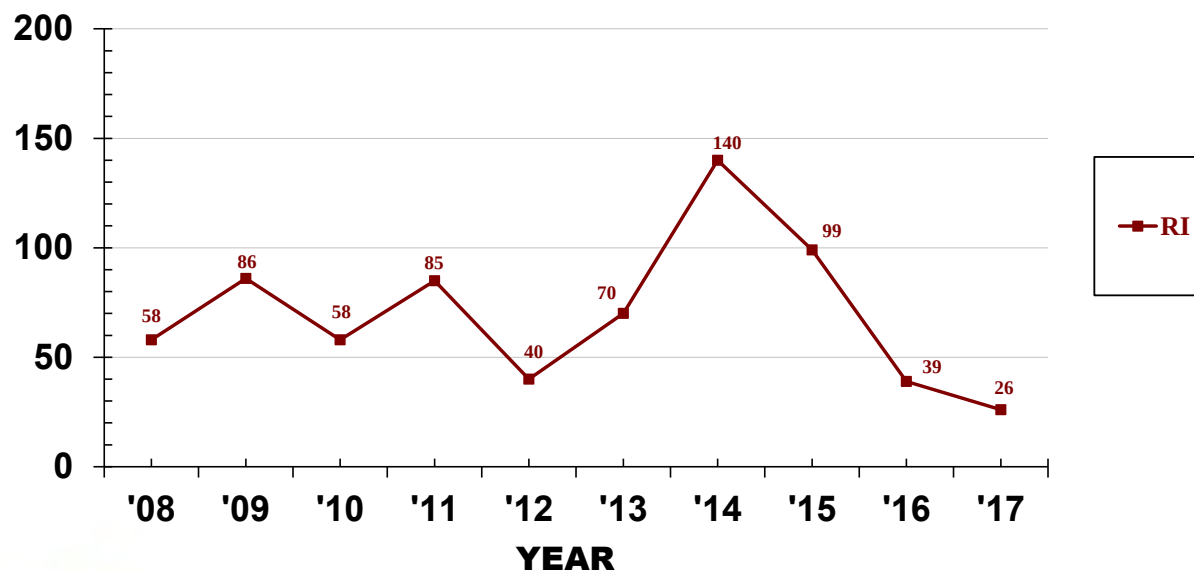


2017 SYSTEM INTEGRITY REPORT

RI

TOTAL CAST IRON MAIN BREAKS

BREAKS

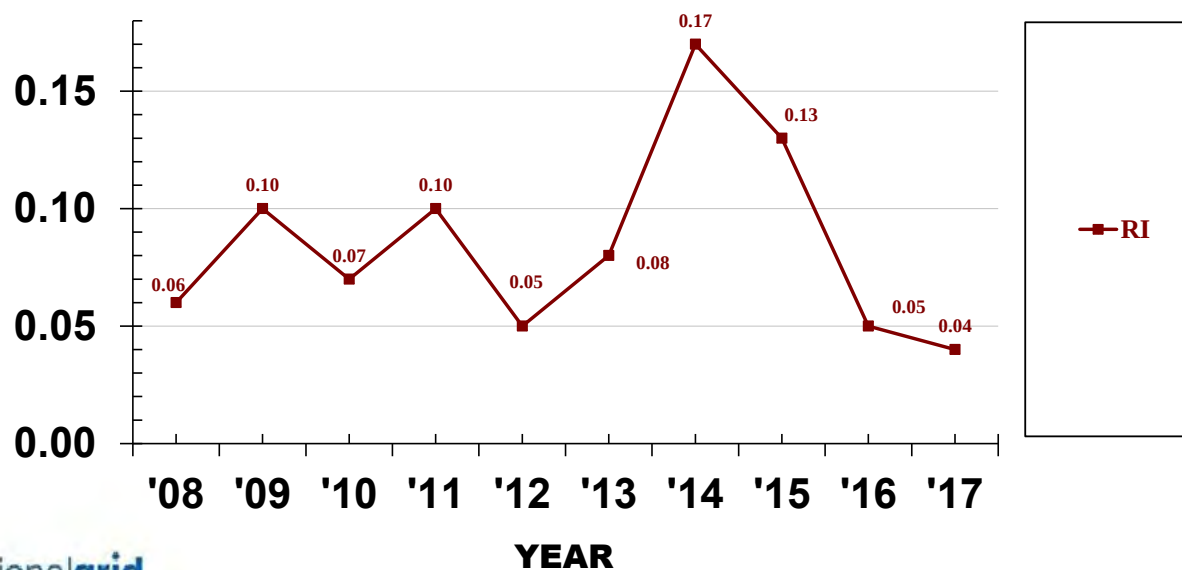


2017 SYSTEM INTEGRITY REPORT

RI

CAST IRON MAIN BREAK "RATES"

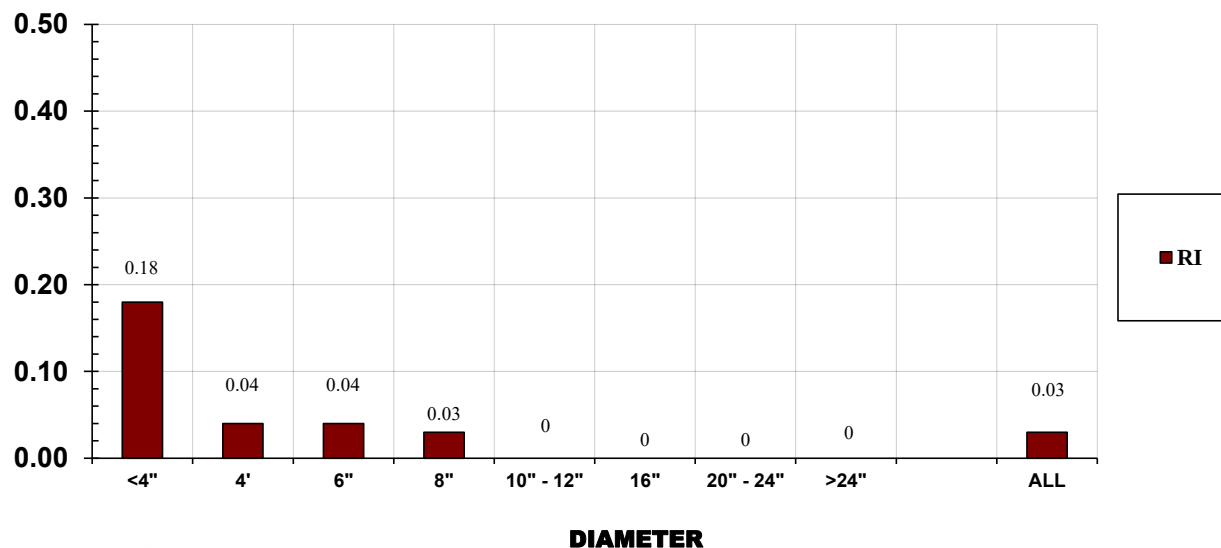
**BREAKS
PER MILE**



2017 SYSTEM INTEGRITY REPORT

RI CAST IRON MAIN BREAK "RATES" "RI REGION" COMPARISON BY DIAMETER

**CAST IRON BREAKS
PER MILE OF CI MAIN**



CI Inventory		
Size	2016	2017
< 4"	6	5
4"	302	281

CI Inventory		
Size	2016	2017
6"	319	303
8"	32	30

CI Inventory		
Size	2016	2017
10" - 12"	73	71
16"	18	17

CI Inventory		
Size	2016	2017
20" - 24"	14	13
24"	5	5

2017 SYSTEM INTEGRITY REPORT

A CLOSER LOOK AT STEEL MAINS

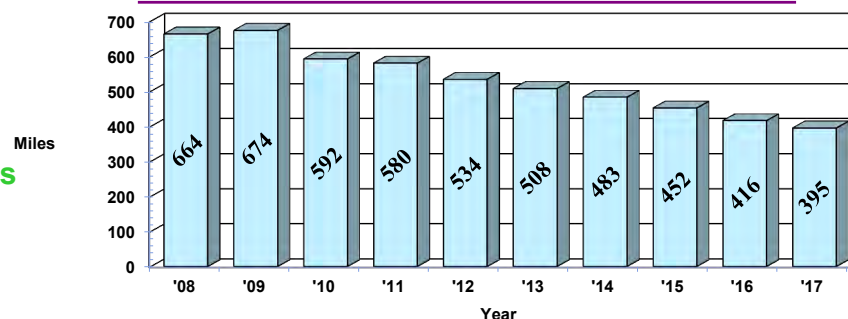


2017 SYSTEM INTEGRITY REPORT

RI

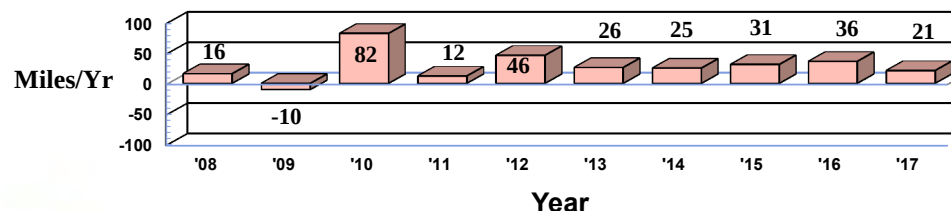
UNPROTECTED STEEL MAIN INVENTORY

DOT-
Reported
Pipe
Inventories



UNPROTECTED STEEL ATTRITION RATE

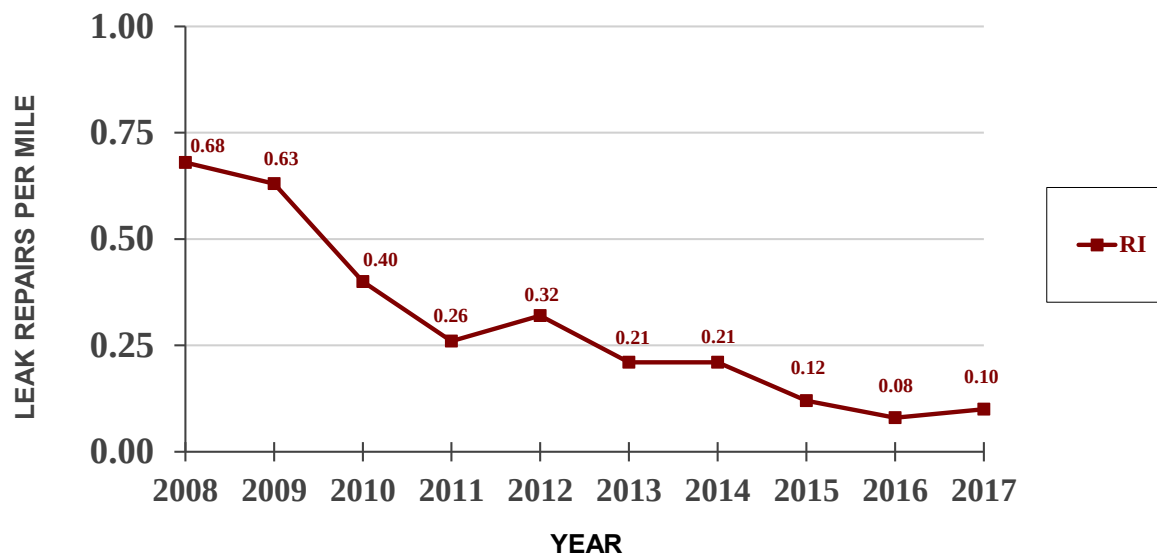
Avg 10 -Yr Attrition Rate: 28.43 Miles/Year (7.20%)



2017 SYSTEM INTEGRITY REPORT

RI MAIN CORROSION LEAK “RATES” CORROSION Leak Repairs Per Mile of “TOTAL” Steel

INCLUDES ALL CORROSION LEAKS, REGARDLESS OF MAIN MATERIAL



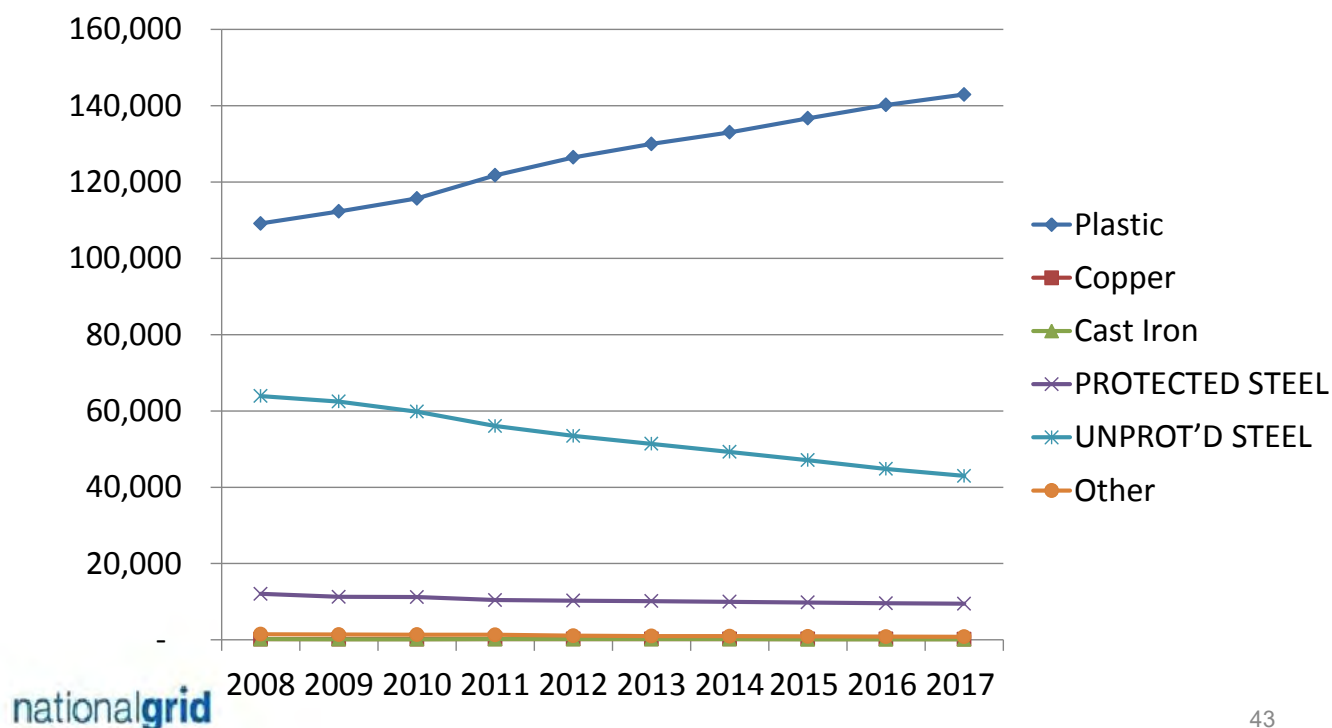
2017 SYSTEM INTEGRITY REPORT

SERVICE INVENTORY ANALYSIS

2017 SYSTEM INTEGRITY REPORT

RI

SERVICE INVENTORY TREND

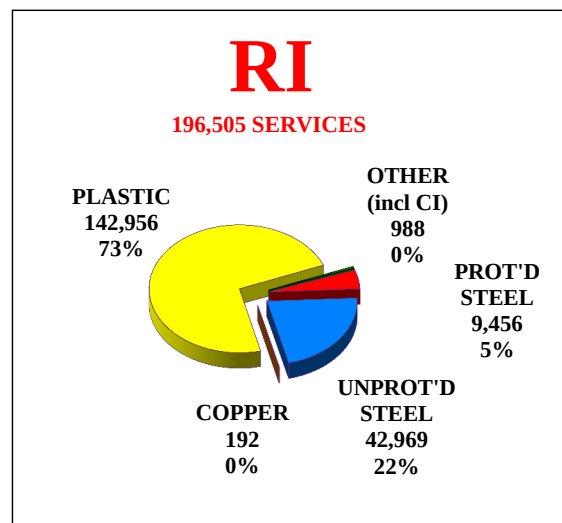


Note: See number of services breakdown in appendix (start from slide 318)

2017 SYSTEM INTEGRITY REPORT

SERVICE INVENTORY

RI



2017 SYSTEM INTEGRITY REPORT

SERVICE LEAK REPAIR ANALYSIS

NOTE: Above Ground Leaks, which are included in the DOT Reports (beginning in 2012), are excluded from this report in order to maintain the integrity of our trend analyses for distribution (not CMS) piping.

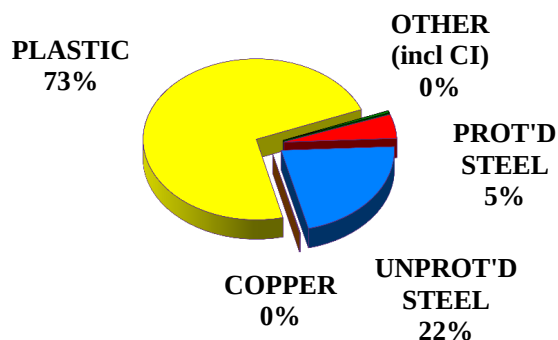
2017 SYSTEM INTEGRITY REPORT

RI TOTAL SERVICE LEAK REPAIRS

INCLUDING Damages

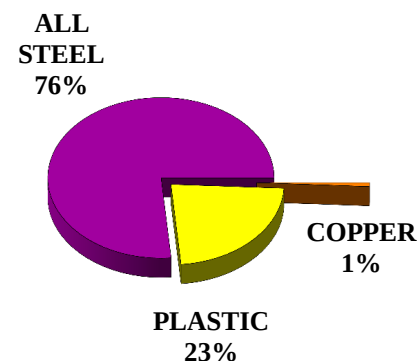
TOTAL SERVICE INVENTORY BY MATERIAL

196,505 SERVICES



TOTAL SERVICE LEAK REPAIRS BY MATERIAL

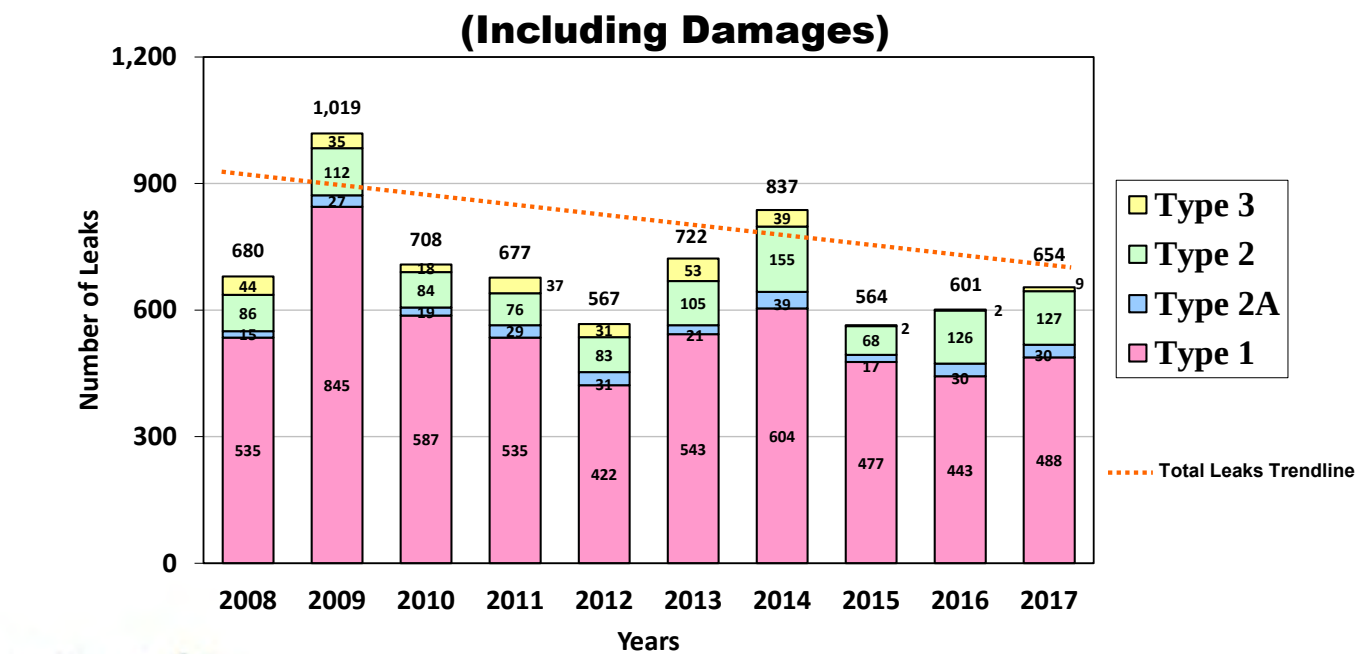
654 LEAKS



2017 SYSTEM INTEGRITY REPORT

LEAKS REPAIRED

By REPAIRED Type SERVICE



2017 SYSTEM INTEGRITY REPORT

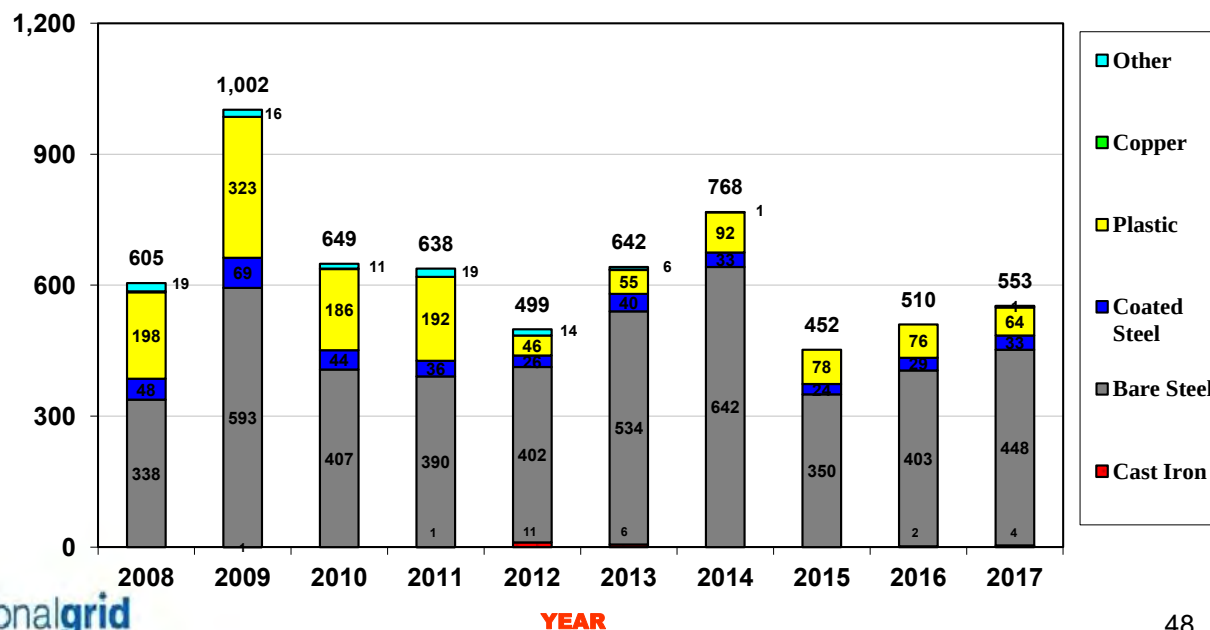
2008 -2017 SERVICE LEAK REPAIRS

All Service Leak Repairs by Material
(Excluding Damages)

RI

NUMBER OF SVC
LEAK REPAIRS

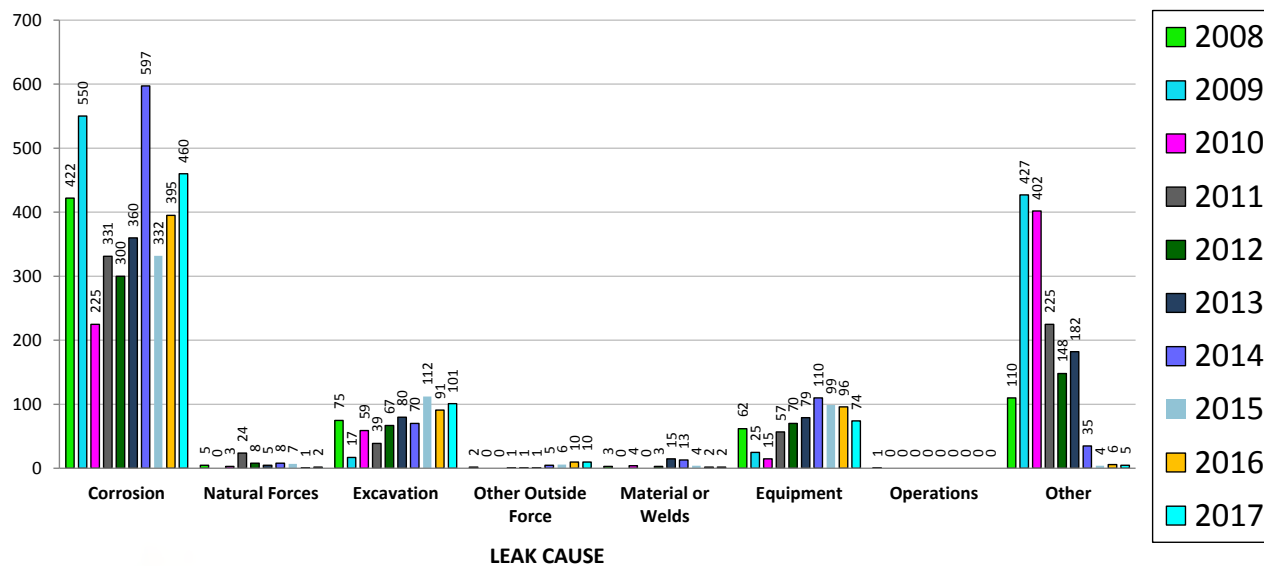
RI



2017 SYSTEM INTEGRITY REPORT

RI SERVICE LEAKS REPAIRED COMPARISON BY LEAK CAUSES

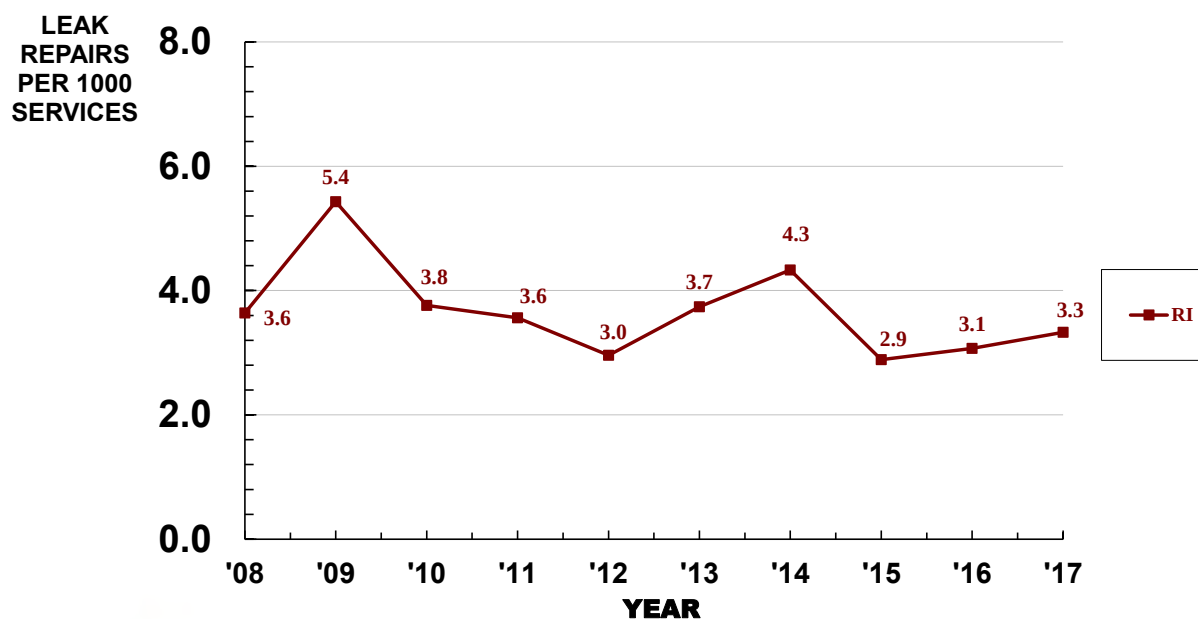
LEAK REPAIRS



2017 SYSTEM INTEGRITY REPORT

RI TOTAL SERVICE LEAK “RATES”

INCLUDING Damages



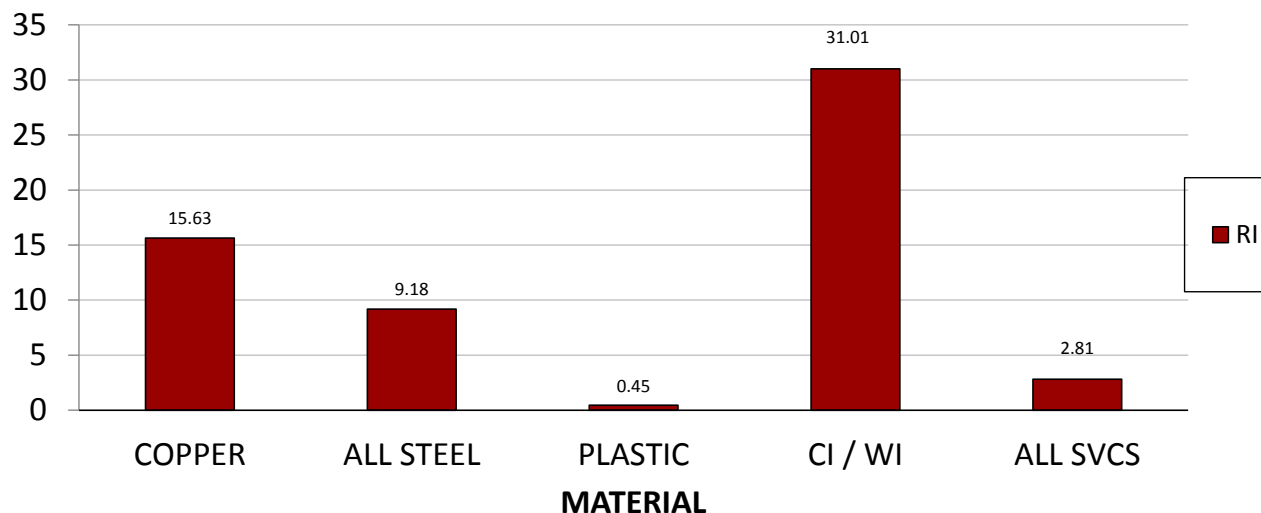
2017 SYSTEM INTEGRITY REPORT

RI

SERVICE LEAK “RATES” COMPARISON BY MATERIAL

EXCLUDING Damages

LEAK REPAIRS
PER 1000 SERVICES



2017 SYSTEM INTEGRITY REPORT

2017 MATERIAL CAUSE MATRIX (SERVICE LEAK REPAIR)



2017 SYSTEM INTEGRITY REPORT

RI 2017 SERVICE LEAKS MATERIAL-CAUSE MATRIX

	CORROSION	MATL/WELD	NAT FORCE	OTH OS FRC	EQUIPMENT	OPERATIONS	OTHER	DAMAGES	ALL CAUSES
CAST IRON	1	0	2	0	1	0	0	0	4
COPPER	3	0	0	0	0	0	0	2	5
STEEL	452	0	0	0	27	0	2	15	496
BARE	429	0	0	0	17	0	2	12	460
COATED	23	0	0	0	10	0	0	3	36
PLASTIC	3	2	0	10	46	0	3	84	148
OTHER	1	0	0	0	0	0	0	0	1
ALL SVCS	460	2	2	10	74	0	5	101	654

2017 SYSTEM INTEGRITY REPORT

2016/2017 DISTRIBUTION DOT REPORT DATA COMPARISONS



2017 SYSTEM INTEGRITY REPORT

RI

		General Data Correction				Explanation Needed				Discussed & Approved			
2016 - 2017 DOT Comparisons		RI				US - NGRID (ALL REGIONS CO)							
		2017		2016		Delta(17-16)	%	2017		2016			
Main Inventory	Cast Iron	730	miles	754	miles	-24	-3%	4,681	miles	4,902	miles		
	Reconditioned Cast Iron	0	miles	0	miles	0	N/A	7	miles	5	miles		
	Plastic	1,476	miles	1,417	miles	+59	4%	16,638	miles	16,031	miles		
	UP Bare Steel	224	miles	242	miles	-18	-7%	3,541	miles	3,688	miles		
	UP Coated Steel	171	miles	175	miles	-4	-2%	1,623	miles	1,657	miles		
	Total UP Steel	395	miles	416	miles	-22	-5%	5,163	miles	5,344	miles		
	CP Bare Steel	0	miles	0	miles	+0	0%	183	miles	185	miles		
	CP Coated Steel	590	miles	590	miles	-0.49	-0.1%	8,730	miles	8,784	miles		
	Total CP Steel	590	miles	590	miles	0	0%	8,913	miles	8,969	miles		
	Other	0	miles	0	miles	-0.01	0%	0	miles	0	miles		
Main Leaks	Ductile Iron	16	miles	16	miles	-0.3	-2%	16	miles	16	miles		
	TOTAL MAIN	3,205	miles	3,193	miles	+12	0.4%	35,419	miles	35,266	miles		
	Corrosion	102	repairs	85	repairs	+17	20%	2,110	repairs	1,828	repairs		
	Natural Forces	26	repairs	40	repairs	-14	-35%	555	repairs	593	repairs		
	Excavation	16	repairs	16	repairs	+0	0%	275	repairs	289	repairs		
	Other Outside Force	1	repairs	0	repairs	+1	#DIV/0!	21	repairs	16	repairs		
	Material or Welds	0	repairs	2	repairs	-2	-100%	50	repairs	69	repairs		
	Equipment	58	repairs	46	repairs	+12	26%	979	repairs	992	repairs		
	Operations	0	repairs	0	repairs	+0	0%	11	repairs	1	repairs		
	Other	666	repairs	562	repairs	+104	19%	9,055	repairs	6,912	repairs		
Service Inventory	TOTAL MAIN LEAKS	869	repairs	751	repairs	+118	18%	13,056	repairs	10,700	repairs		
	Copper	192	svcs	201	svcs	-9	-4%	140,021	svcs	145,795	svcs		
	Plastic	142,956	svcs	140,206	svcs	+2750	2%	1,835,019	svcs	1,790,472	svcs		
	UP Bare Steel	34,701	svcs	36,227	svcs	-1526	-4%	206,726	svcs	216,765	svcs		
	UP Coated Steel	8,268	svcs	8,579	svcs	-311	-4%	176,510	svcs	185,496	svcs		
	Total UP Steel	42,969	svcs	44,806	svcs	-1837	-4%	383,236	svcs	402,261	svcs		
	CP Bare Steel	0	svcs	0	svcs	+0	0%	12,743	svcs	13,001	svcs		
	CP Coated Steel	9,456	svcs	9,585	svcs	-129	-1%	154,542	svcs	157,997	svcs		
	Total CP Steel	9,456	svcs	9,585	svcs	-129	-1%	167,285	svcs	170,998	svcs		
	Other	803	svcs	854	svcs	-51	-6%	102,616	svcs	103,823	svcs		
Service Leaks Excluding Above Ground Leaks	Cast Iron / Wrought Iron	129	svcs	134	svcs	-5	-4%	1,933	svcs	2,430	svcs		
	TOTAL SERVICES	196,505	svcs	195,786	svcs	+719	0.4%	2,630,110	svcs	2,615,779	svcs		
	Corrosion	460	repairs	396	repairs	+64	16%	3,691	repairs	3,041	repairs		
	Natural Forces	2	repairs	1	repairs	+1	100%	111	repairs	189	repairs		
	Excavation	101	repairs	91	repairs	+10	11%	1,470	repairs	1,564	repairs		
	Other Outside Force	10	repairs	10	repairs	+0	0%	106	repairs	125	repairs		
	Material or Welds	2	repairs	2	repairs	+0	0%	68	repairs	102	repairs		
	Equipment	74	repairs	96	repairs	-22	-23%	2,661	repairs	2,600	repairs		
	Operations	0	repairs	0	repairs	+0	0%	10	repairs	4	repairs		
	Other	5	repairs	5	repairs	+0	0%	243	repairs	551	repairs		
Service Leaks Including Above Ground Leaks	TOTAL SVC LEAKS	654	repairs	601	repairs	+53	9%	8,360	repairs	8,175	repairs		
	Corrosion	460	repairs	396	repairs	+64	16%	3,692	repairs	3,041	repairs		
	Natural Forces	2	repairs	1	repairs	+1	100%	115	repairs	193	repairs		
	Excavation	101	repairs	95	repairs	+6	6%	1,453	repairs	1,588	repairs		
	Other Outside Force	13	repairs	10	repairs	+3	30%	127	repairs	126	repairs		
	Material or Welds	2	repairs	2	repairs	+0	0%	71	repairs	102	repairs		
	Equipment	74	repairs	96	repairs	-22	-23%	2,674	repairs	2,631	repairs		
	Operations	0	repairs	0	repairs	+0	0%	10	repairs	4	repairs		
	Other	5	repairs	5	repairs	+0	0%	259	repairs	551	repairs		
	TOTAL SVC LEAKS	657	repairs	605	repairs	+52	9%	8,401	repairs	8,236	repairs		
Total Leak Repairs (Main & Service)		1,523	repairs	1,352	repairs	+171	13%	21,416	repairs	18,875	repairs		
Excluding Above Ground Leak													
Total Leak Repairs (Main & Service)		1,526	repairs	1,356	repairs	+170	13%	21,457	repairs	18,936	repairs		
Including Above Ground Leak													
Workable Backlog As of 12/31		74	leaks	68	leaks	+6	9%	289	leaks	296	leaks		
UFG (Net)		2.2%		1.8%		0	22%	2.6%		2.39%			
Average Service Length (Ft)		66.5	ft	66.0	ft	+0.49	1%	59.8	ft	59.7	ft		

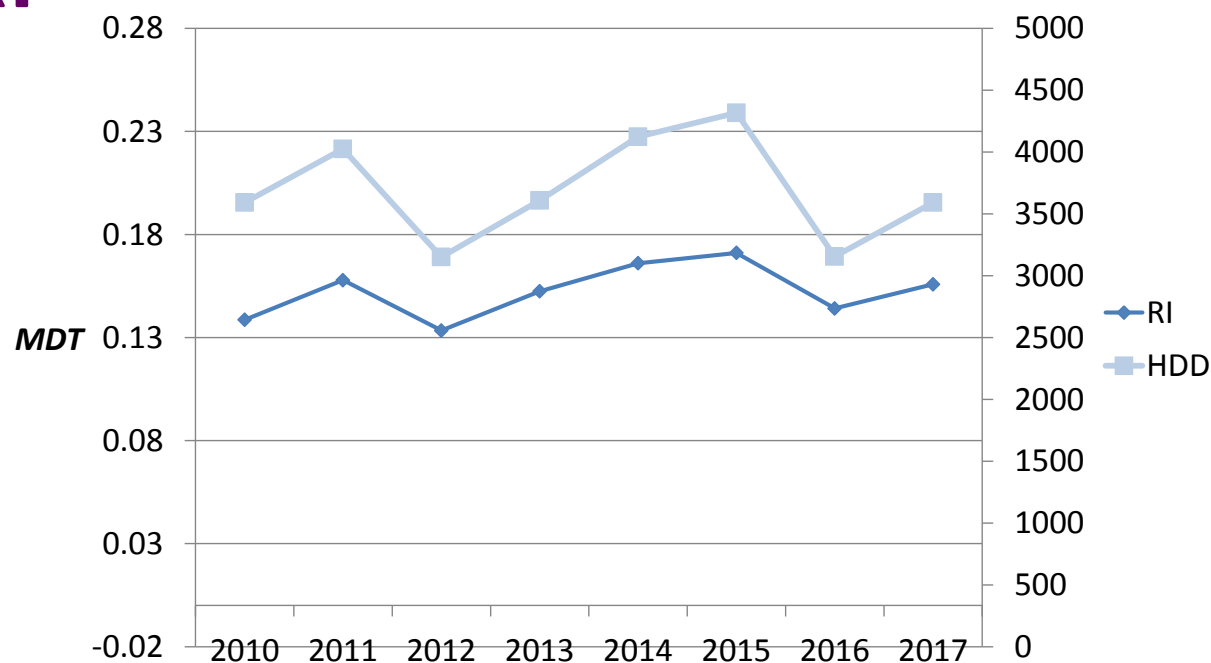
2017 SYSTEM INTEGRITY REPORT

NATIONAL GRID-US 2017 GAS DISTRIBUTION SYSTEM STATISTICS



2017 SYSTEM INTEGRITY REPORT

RI AVG. CUSTOMER USED RATE



Note:

- Customer Used = Sendout (MDT) / Total Customer (see slide 294)
- Total Customer includes Residential and Commercial
- Heating Degree Days (HDD)
- Million Dekatherm (MDT)

2017 SYSTEM INTEGRITY REPORT

State	Year	Category	Miles of Main	# of Services	Avg Service Length (ft/cv)	Miles of Distribution Pipeline	Residential Customers	Commercial and Industrial Customers	TOTAL Customers	Sendout (MDT)
NYC	2017		4,141	568,846	45	4,848	8,989	1,189,385	72,689	1,262,074
LI	2017		8,104	46,923	13	6,733	1,017	142,731	9,611	594,317
BOSTON	2017		36	68	46	498	5,851	99,381	5,433	65,323
ESSEX	2017		866	52,100	7.6	707	1,573	49,332	5,118	54,450
CAPE	2017		2,475	117,390	5.0	1,690	4,165	105,467	9,722	115,189
LOWELL	2017		1,397	77,525	8	1,054	2,451	84,511	9,436	93,947
ALL MASSACHUSETTS	2017		11,105	753,920	55.6	7,943	19,048	828,490	78,419	916,909
RHODE ISLAND	2017		3,205	598,846	66.5	3,478	8,989	1,189,385	22,089	1,262,074
TOTAL NEW ENGLAND	2017		28,788	568,846	66.5	16,786	46,566	1,189,385	102,666	1,292,051
NYC	2017		11.7%	21.6%	13.8%	34.5%	33.4%	137	2.2	140.4
LI	2017		6.1%	10.4%	3.9%	16.4%	6.2%	1.8	0.35	22.45
BOSTON	2017		0.3%	0.01%	0.007%	0.01%	0.06%	0.08%	0.008%	0.160
ESSEX	2017		18.0%	1.9%	16.7%	7.5%	1.8%	1.2%	0.05%	0.168
CAPE	2017		2.4%	2.0%	2.4%	1.5%	1.1%	0.3%	0.04%	0.171
LOWELL	2017		7.0%	1.1%	6.4%	1.3%	0.3%	0.03%	0.003%	0.172
ALL MASSACHUSETTS	2017		3.9%	2.0%	3.8%	2.4%	1.9%	0.7%	0.08%	0.173
RHODE ISLAND	2017		11.1%	28.7%	29.2%	25.1%	23.9%	1.2	0.19	0.159
TOTAL NEW ENGLAND	2017		19.0%	35.1%	18.8%	63.0%	36.9%	29.7%	6.5%	610.446
ALL NEW YORK STATE	2017		59.6%	63.9%	62.1%	67.6%	69.3%	80	1.5	0.171
BOSTON	2017		13.0%	1.9%	19.1%	8.0%	1.3	60.2	0.22	10.39
ESSEX	2017		2.4%	2.0%	2.4%	1.5%	1.1%	0.3%	0.04%	0.172
CAPE	2017		7.0%	1.1%	6.4%	1.3%	0.3%	0.03%	0.003%	0.173
ALL MASSACHUSETTS	2017		3.9%	2.0%	3.8%	2.4%	1.9%	0.7%	0.08%	0.174
RHODE ISLAND	2017		11.1%	28.7%	29.2%	25.1%	23.9%	1.2	0.19	0.159
TOTAL NEW ENGLAND	2017		19.0%	35.1%	18.8%	63.0%	36.9%	29.7%	6.5%	610.446

CAUTION: This chart is for comparative-illustrative purposes only. The data is not audited & many assumptions have been made.

Investment data is from the Annual DOT/NGSA Distribution Reports.
Customer data is from the Gas Customer Data Base- Active Gas Accounts
Sendout data is from the sendout for the 12-month period used to calculate UFG for the DOT Reports.

BOSTON	13.0%	1.9%	19.1%	8.0%	1.3	60.2	0.22	10.39	0.173
ESSEX	2.4%	2.0%	2.4%	1.5%	1.1%	0.3%	0.04%	0.172	58
CAPE	7.0%	1.1%	6.4%	1.3%	0.3%	0.03%	0.003%	0.173	0.101

2017 SYSTEM INTEGRITY REPORT

2017 SYSTEM INTEGRITY REPORT ANALYSIS (FINDINGS AND EXPLANATIONS)



2017 SYSTEM INTEGRITY REPORT

RI

ANALYSIS OF FINDINGS AND EXPLANATIONS

FINDING 2:

RI

Total leak receipts have increased by 25% in 2017 compared to 2016, and the total Leak Repairs increased by 13%.

MAIN- Leak repairs have increased by 16% in 2017 compared to 2016. Total Cast Iron break reduced by 33%.

SERVICE- Leak repairs have increased by 9% compared to 2016. Type 1 leak repair increased by 10%, and the number of Type 3 repairs increased by over three times.

2017 SYSTEM INTEGRITY REPORT

NE - Leak Prone Pipe Replacement

		2009	2010	2011	2012	2013	2014	2015	2016	2017	CY18	CY19	CY20	CY21	CY22	CY23	CY24	CY25
RI	All Programs	-	-	-	109.4	95.8	110.0	101.1	123.8	121.2	115	120	123	126	129	132	135	138
	Proactive	-	-	-	75.8	69.1	54.8	40.2	61.4	63.6	56	59.0	60.0	63.0	64.5	66.0	69.0	70.0
CLC	All Programs	-	-	-	63.2	42.6	48.6	39.6	38.2	44.7	40	34	28	25	20	20	18	18
	Proactive	-	-	-	60.6	40.3	45.8	33.7	33.7	39.5	36	30	25	23	19	19	18	18
NE - Leak Prone Pipe Replacement																		
MA	All Programs	-	56.3	69.6	172.6	138.4	158.6	140.7	162.0	165.9	155	154	151	151	149	152	153	156
	Proactive	-	-	-	136.4	109.4	100.6	73.9	95.1	103.1	92	89	85	86	84	66	69	70
RI	All Programs	-	32.1	27.2	169.3	95.8	120.0	166.0	162.8	163.3	166	166	165	166	169	168	165	169
	Proactive	-	-	-	50.0	39.9	23.0	50.3	51.0	48.3	50	49.7	49.7	49.7	49.7	53.0	54	59
CLC	All Programs	-	-	-	63.2	42.6	48.6	39.6	38.2	44.7	*Projected 40	34	28	25	20	20	18	18
	Proactive	-	-	-	60.6	40.3	45.8	33.7	33.7	39.5	36	30	25	23	19	19	18	18
MA	All Programs	-	56.3	69.6	172.6	138.4	158.6	140.7	162.0	165.9	155	154	151	151	149	152	153	156
	Proactive	-	-	-	136.4	109.4	100.6	73.9	95.1	103.1	92	89	85	86	84	66	69	70
RI	All Programs	-	32.1	27.2	54.3	44.0	28.8	56.0	62.7	63.3	60	65	65	65	65	65	65	69
	Proactive	-	-	-	50.0	39.9	23.0	50.3	51.0	48.3	50	49.7	49.7	49.7	49.7	53.0	54	59

*Projected

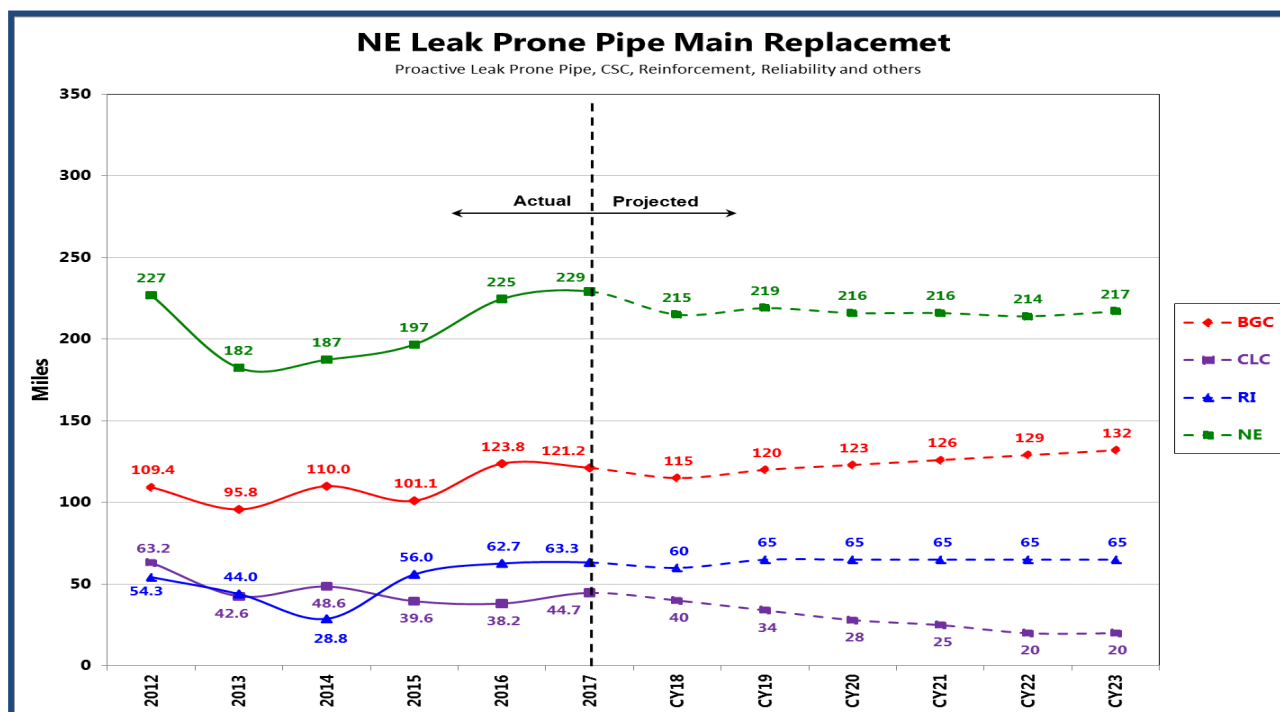
2017 SYSTEM INTEGRITY REPORT

RI Cast Iron/Unprotected Steel Ratio

NE - Cast Iron / Unprotected Steel		Calendar Years			
		2014	2015	2016	2017
BGC	Cast Iron	67.1	69.1	53.6	64.4
	Unp. Steel	42.9	32.0	70.2	59.3
CLC	Cast Iron	10.1	5.4	3.4	4.6
	Unp. Steel	38.5	34.2	34.8	41.6
NE - Cast Iron / Unprotected Steel					
MA	Cast Iron	77.2	74.5	56.9	69.0
	Unp. Steel	81.4	66.2	105.0	100.9
RI	Cast Iron	20.1	29.4	19.8	24.7
	Unp. Steel	8.7	39.5	41.0	28.5
CLC	Cast Iron	10.1	5.4	3.4	4.6
	Unp. Steel	38.5	34.2	34.8	41.6
MA	Cast Iron	77.2	74.5	56.9	69.0
	Unp. Steel	81.4	66.2	105.0	100.9
RI	Cast Iron	20.1	29.4	19.8	24.7
	Unp. Steel	8.7	39.5	41.0	28.5

2017 SYSTEM INTEGRITY REPORT

NE - MA & RI



2017 SYSTEM INTEGRITY REPORT

APPENDICES

2017 SYSTEM INTEGRITY REPORT

MAIN

2017 SYSTEM INTEGRITY REPORT

RI

MAIN INVENTORY (MILES)

Average Age
Of All RI
Distribution Main:
44.48 Years

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Plastic	968	1,002	1,044	1,103	1,168	1,227	1,287	1,378	1,417	1,476
Cast Iron	896	885	878	875	859	831	806	769	754	730
Recond. Cast Iron	-	-	-	-	-	-	-	-	-	-
PROTECTED STEEL	578	551	601	588	597	596	595	595	590	590
UNPROT'D STEEL	664	674	592	580	534	508	483	452	416	395
Other	1	-	-	0	0	0	-	-	-	-
Ductile Iron	17	17	17	17	16	16	16	16	16	16
TOTAL MAIN	3,124	3,129	3,132	3,163	3,174	3,179	3,188	3,210	3,193	3,205

2017 SYSTEM INTEGRITY REPORT

SERVICES

2017 SYSTEM INTEGRITY REPORT

SERVICE

INVENTORY

(NUMBER OF SERVICES)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Plastic	109,144	112,313	115,718	121,770	126,474	130,002	133,024	136,700	140,206	142,956
Copper	178	177	171	209	208	207	205	202	201	192
Cast Iron	175	168	162	194	189	185	174	137	134	129
PROTECTED STEEL	12,066	11,260	11,206	10,422	10,285	10,150	9,989	9,800	9,585	9,456
UNPROT'D STEEL	63,919	62,462	59,800	56,049	53,449	51,387	49,265	47,104	44,806	42,969
Other	1,470	1,405	1,348	1,322	1,085	1,000	958	900	854	803
TOTAL SERVICES	186,952	187,785	188,405	189,966	191,690	192,931	193,615	194,843	195,786	196,505

DOT- Reported Pipe Inventories

2017 SYSTEM INTEGRITY REPORT

END OF RI SYSTEM INTEGRITY REPORT

2018 SYSTEM INTEGRITY REPORT

nationalgrid

Enterprise *Gas Distribution Systems* Trend-Based Integrity Analysis

RI

Gas Distribution Engineering Gas Asset Management– Gas Process & Engineering

Saadat Khan (631) 710-3510 Director – Gas Distribution Engineering
Leomary Bader (781) 907-2785 Manager – Gas Distribution Engineering
Aamir Khizar (631) 770-3511 Senior Engineer – Gas Distribution Engineering
Yan Wang-jiang (781) 907-2241 Engineer – Gas Distribution Engineering
Kevin Lim (315) 428-6399 Engineer – Gas Distribution Engineering
Jim MacMartin (315) 428-5054 Engineer – Gas Distribution Engineering
Kevin Peters (631) 770-3438 Engineer – Gas Distribution Engineering
Prathiba Seetharam (516) 448-8673 Engineer – Gas Distribution Engineering
Madeline Blaisdell (781) 907-4164 Assoc. Engineer – Gas Distribution Engineering

nationalgrid

2018 SYSTEM INTEGRITY REPORT

Table of Contents

		Page
Tab – 1	Overall Regional Gas Distribution Integrity Assessment Summary	4
1.1	Overall Regional Distribution Integrity Assessment Summary.....	5, 16-17
Tab – 2	Leak Receipt's, Repairs and Backlog by HDD Trend (Main & Service)	6
2.1	Total Leak Receipts, Repairs & Backlog.....	7-15
Tab – 3	PHMSA Reported Incidents Cost	18
3.1	Total Reported Incidents.....	19-21
Tab – 4	Leak Management Analysis	22
4.1	Leak Receipts as a Function of Total System Pipe Mileage.....	23-25
4.2	Leak Receipts by Discovery Source (Excluding Damages).....	26-31
4.3	Leak Receipts by Original Type (Excluding Damages).....	32-40
4.4	Leak Receipts by Repaired Type (Including Damages).....	41-50
4.5	Year-End Workable Leak Backlogs.....	51-53
4.6	Year-End Open Type-3 Leaks.....	54-56
Tab – 5	Main Inventory Analysis	57
5.1	Main LPP Inventory Trend (Miles).....	58
5.2	Main Inventory.....	59-62
5.3	National Grid Main Replacement.....	63
Tab – 6	Main Leak Repair Analysis	64
6.1	Total Main Leak Repairs (Including Damages).....	65-67
6.2	Total Main Inventory Compared to Leak Repairs.....	68-76
6.3	Leaks Repaired by Type (Including Damages).....	77-85
6.4	Main Leak Repairs (Excluding Damages).....	86-94
6.5	Main Leaks Repaired (Comparison by Leak Causes).....	95-103
6.6	Total Main Leak "Rates" (Including Damages)	104-107
6.7	Main Leak "Rates" Comparison by Material (Excluding Damages).....	108-119

2018 SYSTEM INTEGRITY REPORT

Table of Contents

		Page
Tab – 7	A Closer Look at Cast Iron Mains	120
7.1	New York 10-Year Cast Iron Main Inventory & Attrition "RATE".....	121-124
7.2	New England 10-Year Cast Iron Main Inventory & Attrition "RATE".....	125-128
7.4	US-National Grid 10-Year Cast Iron Main Inventory & Attrition RATE".....	129
7.5	Total Cast Iron Main Breaks.....	130-136
7.6	Cast Iron Main Break "RATES".....	137-139
7.7	Cast Iron Main Break "RATES" by Diameter.....	140-142
Tab – 8	A Closer Look at Steel Mains	143
8.1	New York 10-Year Unprotected Steel Main Inventory & Attrition "RATE".....	14-147
8.2	New England 10-Year Unprotected Steel Main Inventory & Attrition "RATE".....	148-151
8.4	US-National Grid 10-Year Unprotected Steel Main Inventory & Attrition RATE".....	152
8.5	Main Corrosion Leak "RATE".....	153-155
Tab – 9	Service Inventory Analysis	156
9.1	New York Service Inventory Trend.....	157-160
9.2	New England Service Inventory Trend.....	161-164
9.4	US-National Grid Service inventory Trend.....	165
9.5	Service Inventory by Material.....	166-169
Tab – 10	Service Leak Repair Analysis	170
10.1	Total Service Leak Repairs (Including Damages).....	171-179
10.2	Leaks Repaired by Repaired Type (Including Damages).....	180-188
10.3	Leak Repairs (Excluding Damages) by Material.....	189-197
10.4	Leaks Repaired (Comparison by Leak Causes).....	198-206
10.5	Total Service Leak "Rates" (Including Damages).....	207-209
10.6	Service Leak "Rates" Comparison by Material (Excluding Damages).....	210-212

2018 SYSTEM INTEGRITY REPORT

Table of Contents

	Page
Tab – 11 Distribution DOT Report data Comparisons	213
11.1 New York, New England, & US-National Grid.....	214-216
Tab – 12 National Grid-US Gas Distribution System Statistics	217
12.1 Avg. Customer Rate.....	218-224
12.2 Gas Distribution System Statistics.....	225-228
Tab – 13 Findings and Explanations	229
13.1 Analysis of Findings and Explanations.....	230-233
13.2 LPP Replacement Projection.....	234-237
Tab – 14 Meter Statistics	238
14.1 Meter Population.....	239-241
14.2 Meter Changes.....	242
Tab – 15 Appendices	243
15.1 Total Leak Receipts.....	244-247
15.2 2018 Main Leak Repairs Details.....	248-257
15.3 2018 Service Leak Repairs Details.....	258-267
15.4 Main Inventory.....	268-277
15.5 Service Inventory.....	278-287

2018 SYSTEM INTEGRITY REPORT

Overall Regional Gas Distribution Integrity Assessment Summary

2018 SYSTEM INTEGRITY REPORT

Overall Regional Distribution Integrity Assessment Summary

Distribution Engineering has reviewed all of the findings in the annual Trend-Based Distribution System Integrity Analysis (*System Integrity Report*) in accordance with our Distribution Integrity Management Plan (DIMP), and finds that leak receipts have decreased slightly for MA. NYS and RI have experienced only slight increases in the amount of leak receipts despite an elevated number of Heating Degree Days which is a testament to the effectiveness of the accelerated LPP replacement program in identifying the correct LLP for replacement. There are no immediate causes for concern that would warrant changes to DIMP. Any anomalies found were either explained as non-systemic or set up for continued research and/or monitoring. These will be explained in notes to this report. CI main break rates have increased in every region which has been attributed to a combination of an elevated number of Heating Degree Days as well as milder average temperatures which resulted in a higher number of freeze-thaw cycles.

Below is a summary of the individual key integrity measure results for the eight (8) federal (PHMSA) filing entities that constitute National Grid-US.

NATIONAL GRID		
2018 System Integrity Report Summary		
REGIONS		RI
ITEMS		
• Leak Receipts	• Leak Receipts	↑
• Workable Leak	• Workable Leak Backlog	↑
• LPP Main and S	• LPP Main and Service Inventories	↓
• Overall Main Le	• Overall Main Leak Rate	↑
• Cast Iron Main	• Cast Iron Main Break Rate	↑
• Steel Main Corro	• Steel Main Corrosion Leak Rate	■
• Service Leak Ra	• Service Leak Rate	↓

 Increase
 Slight Increase
 No Change
 Decrease

2018 SYSTEM INTEGRITY REPORT

LEAK RECEIPTS, REPAIRS AND BACKLOG BY HDD TREND (Main & Service)

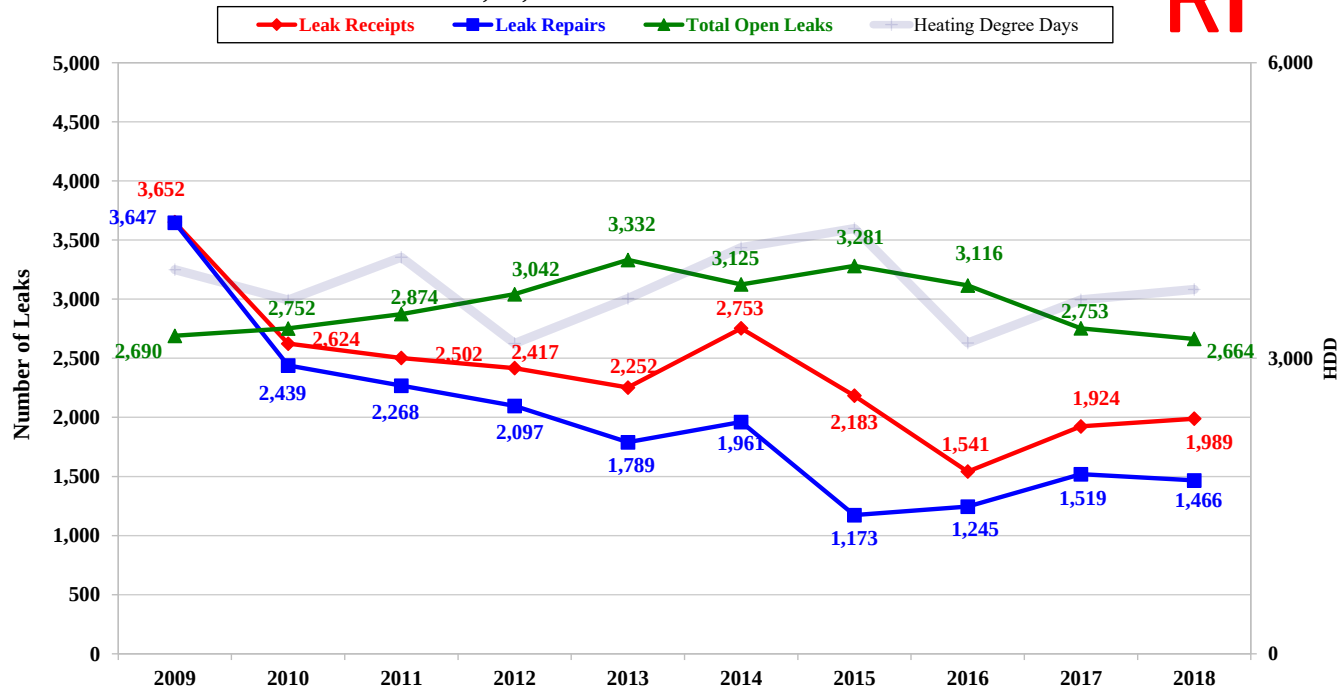
NOTE: Heating Degree Day (HDD)

2018 SYSTEM INTEGRITY REPORT

TOTAL LEAK RECEIPTS, REPAIRS & BACKLOG

INCLUDES ALL TYPE 1, 2A, 2 and 3 LEAKS DISCOVERED - EXCLUDING DAMAGES

RI



nationalgrid

Leak Receipts and Repairs and Backlog:

2018 RI Leak Repairs =



2018 RI Leak Receipts =



2018 RI Leak Backlogs =



2018 SYSTEM INTEGRITY REPORT

Overall Regional Distribution Integrity Assessment Summary

Rhode Island (RI)

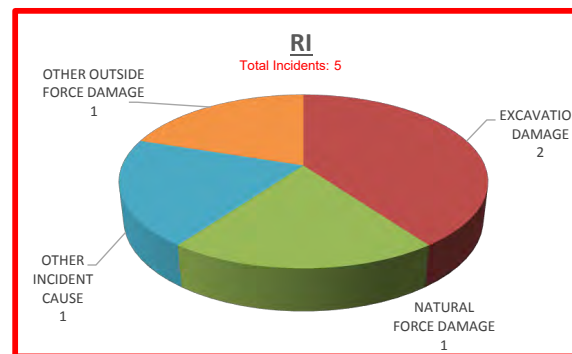
- Leak receipts increased.
- Workable leak backlog decreased.
- Leak prone main and service inventories continue to decline steadily.
- Overall main leak rate increased. Steel main corrosion rate decreased and Cast Iron main break rate increased.
- Service leak rate decreased.

2018 SYSTEM INTEGRITY REPORT

PHMSA Reported Incidents

2018 SYSTEM INTEGRITY REPORT

RI PHMSA Reported Incidents



2018 SYSTEM INTEGRITY REPORT

LEAK MANAGEMENT ANALYSIS (Mains & Services)

2018 SYSTEM INTEGRITY REPORT

2018 LEAK RECEIPTS

RI

1,989 Leak Receipts

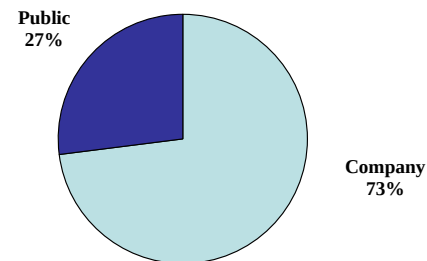
3,201 miles of Main
197,147 #'s of Services
(2,483 miles)

5,684 total miles of pipe

*0.35 Leak Receipts
per Mile of Pipe*

2018 LEAK RECEIPTS BY DISCOVERY SOURCE

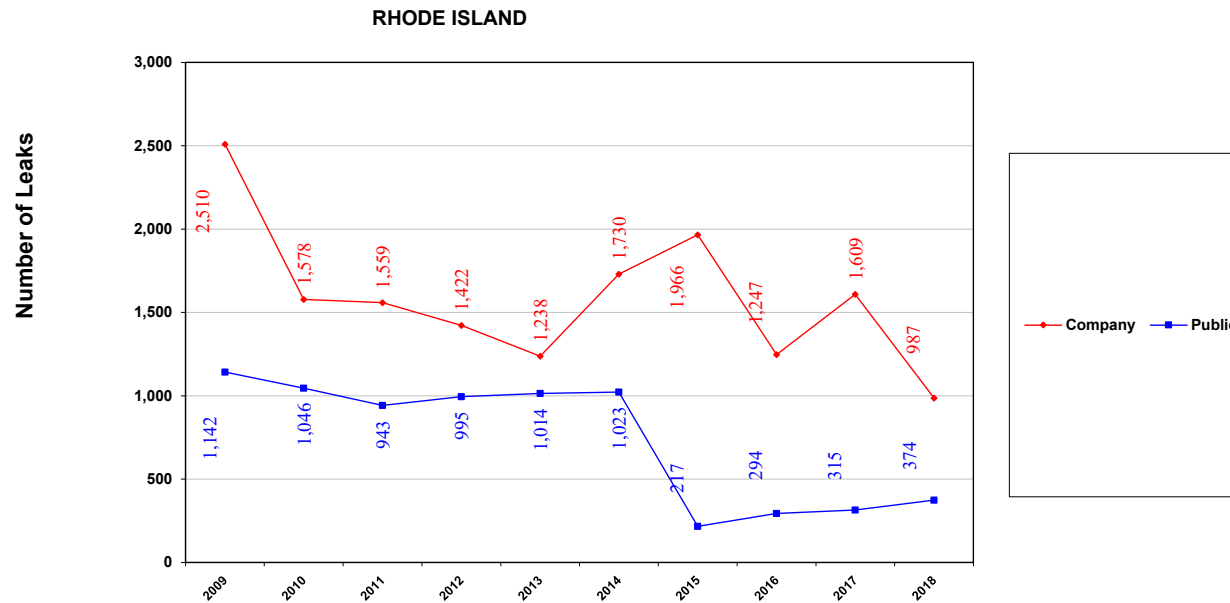
RI



2018 SYSTEM INTEGRITY REPORT

2009 - 2018 LEAK RECEIPTS

By Discovery Source (Excluding Damages)



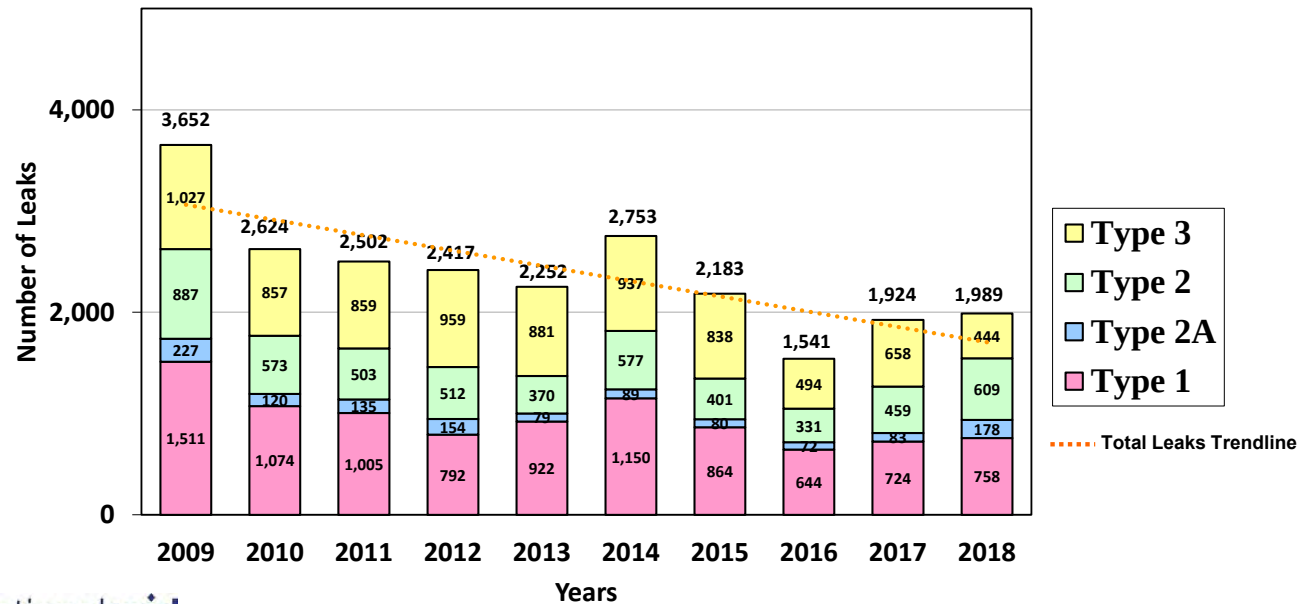
2018 SYSTEM INTEGRITY REPORT

LEAK RECEIPTS

RI

By ORIGINAL Type

(Excluding Damages)



2018 SYSTEM INTEGRITY REPORT

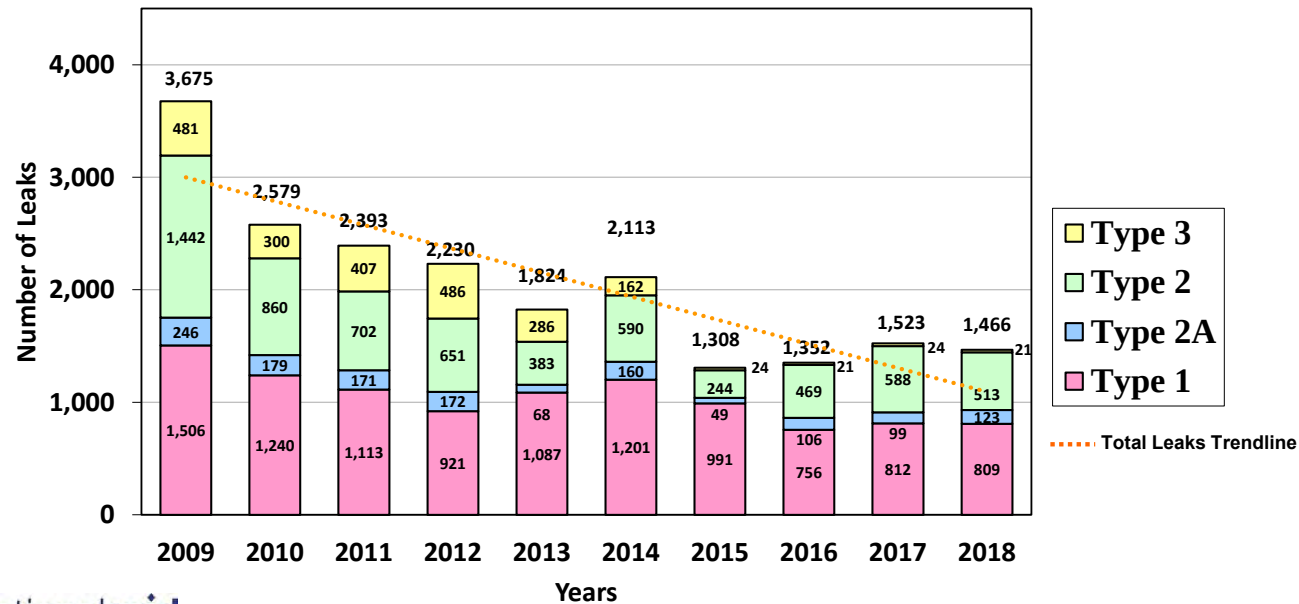
LEAKS REPAIRED ANALYSIS (Mains & Services)

2018 SYSTEM INTEGRITY REPORT

RI

LEAKS REPAIRED By REPAIRED Type

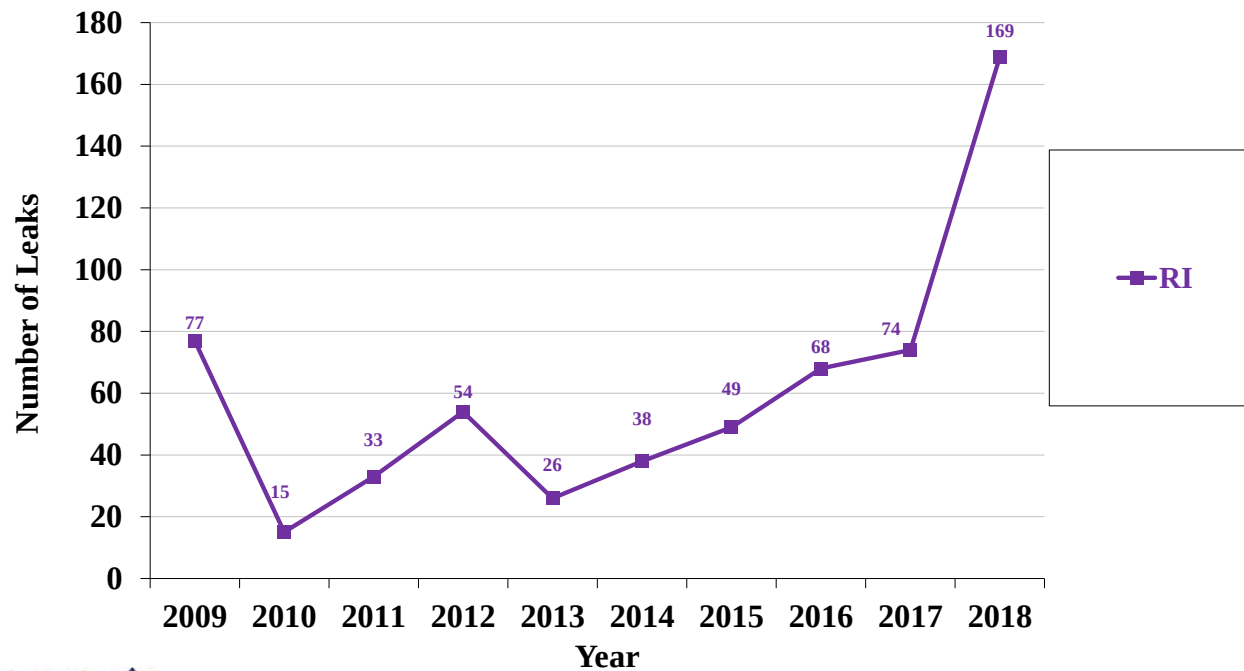
(Including Damages)



2018 SYSTEM INTEGRITY REPORT

RI

YEAR-END WORKABLE LEAK BACKLOGS



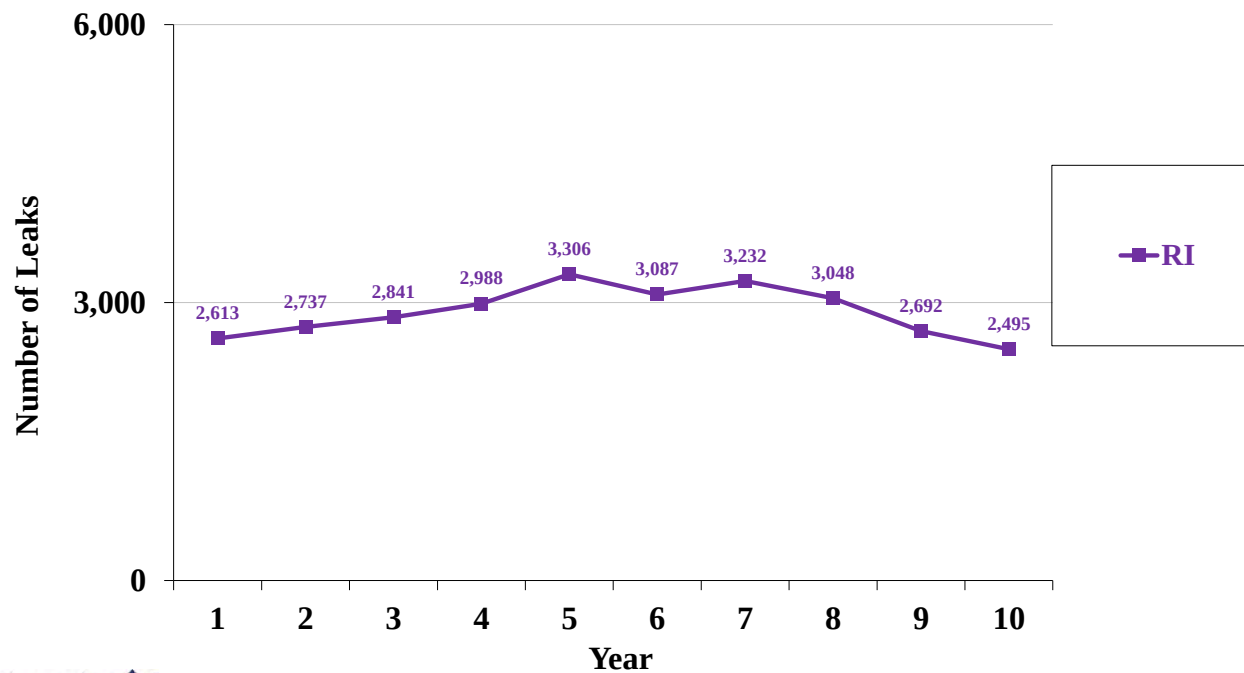
nationalgrid

Note: 2018 experienced an increase in the backlog due to implementation of the Work Continuation Plan.

2018 SYSTEM INTEGRITY REPORT

RI

YEAR-END OPEN TYPE 3



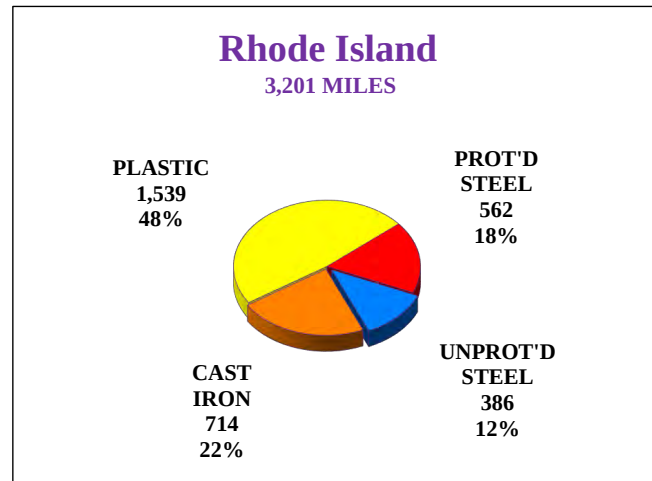
2018 SYSTEM INTEGRITY REPORT

MAIN INVENTORY ANALYSIS

2018 SYSTEM INTEGRITY REPORT

MAIN INVENTORY

RI



2018 SYSTEM INTEGRITY REPORT

NATIONAL GRID MAIN REPLACEMENT

Rate Case Supported "Leak-Prone" Main Replacement Levels										
Region	2018 Total Main (Miles)	2018 Leak Prone Main (Miles)	Leaks/Miles of Total Main (Repair rate)	Leaks/Miles of Leak Prone Main (Repair rate)	⁽⁵⁾ 2018 Annual "Planned" Replacement (Miles)	Planned Replacement % of Leak prone system	⁽⁵⁾ 2018 Annual "Actual" Replacement (Miles)	Actual Replacement % of Leak prone system	⁽⁵⁾ 2019 Annual "Planned" Replacement (Miles)	Years to LPP Main Elimination based on "Current" annual plan
RI	3,201	1,086	0.29	0.81	60.0	5.5%	67.8	6.2%	55.0	15

- Note:
1. Leaks per mile of total main excludes Excavation leaks.
 2. Leaks per mile of Leak-Prone main (LPP) excludes Excavation leaks and Plastic leaks.
 3. Leak-Prone Pipe = Unprotected steel (Bare & Coated) + CI/WI + Aldyl-A (MD, 1985 and prior) + Other.
 4. Miles of Leak-Prone main replaced includes all Proactive programs (Main Replacement program & System Reinforcement) and all Reactive programs (Public Works, Water Intrusion & Leak/reactive).
 5. Annual planned and actual replacement miles are CY.
 6. Data sources are 2016, 2017, 2018 US Gas Leak Prone Pipe Replacement Programs monthly reports from Gas Resource Management CMS.

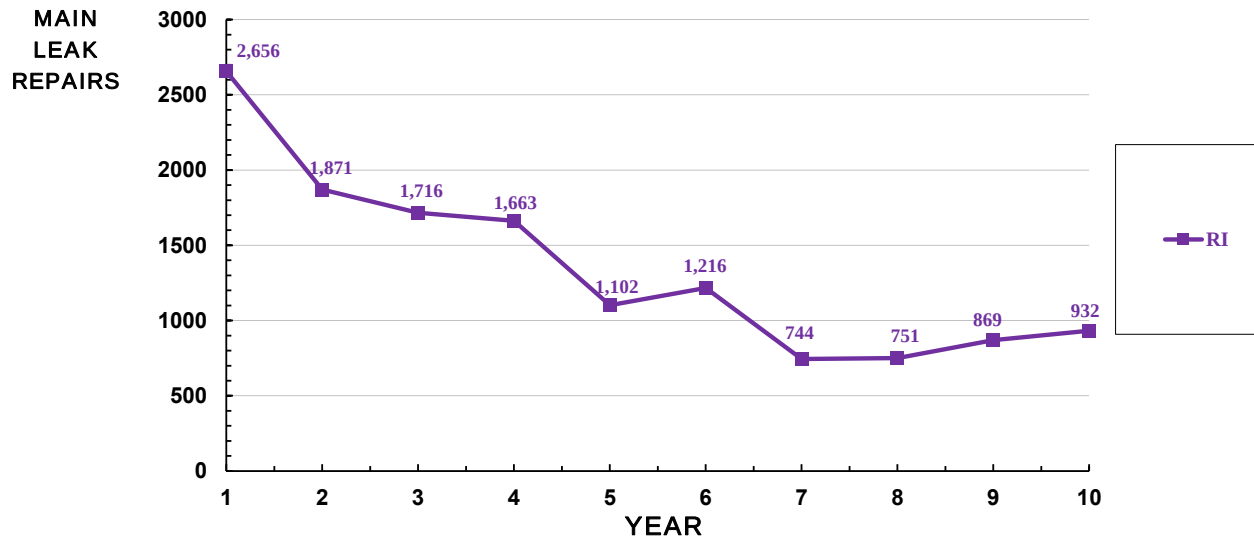
2018 SYSTEM INTEGRITY REPORT

MAIN LEAK REPAIR ANALYSIS

2018 SYSTEM INTEGRITY REPORT

TOTAL MAIN LEAK REPAIRS

INCLUDING Damages



NOTE: Cast Iron Leaks Count Total Individual Joint Repairs

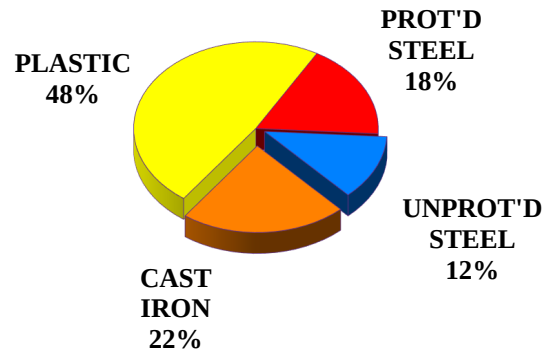
2018 SYSTEM INTEGRITY REPORT

RI

TOTAL MAIN INVENTORY COMPARED TO LEAK REPAIRS

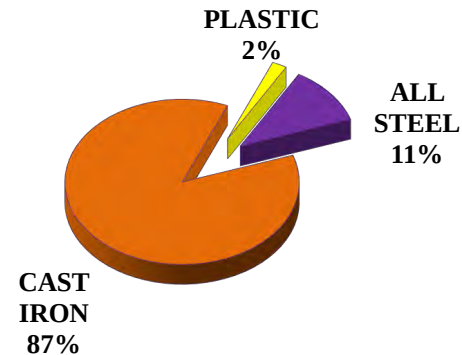
TOTAL MAIN INVENTORY BY MATERIAL

3,201 MILES



TOTAL MAIN LEAK REPAIRS BY MATERIAL

929 LEAKS (including damages)

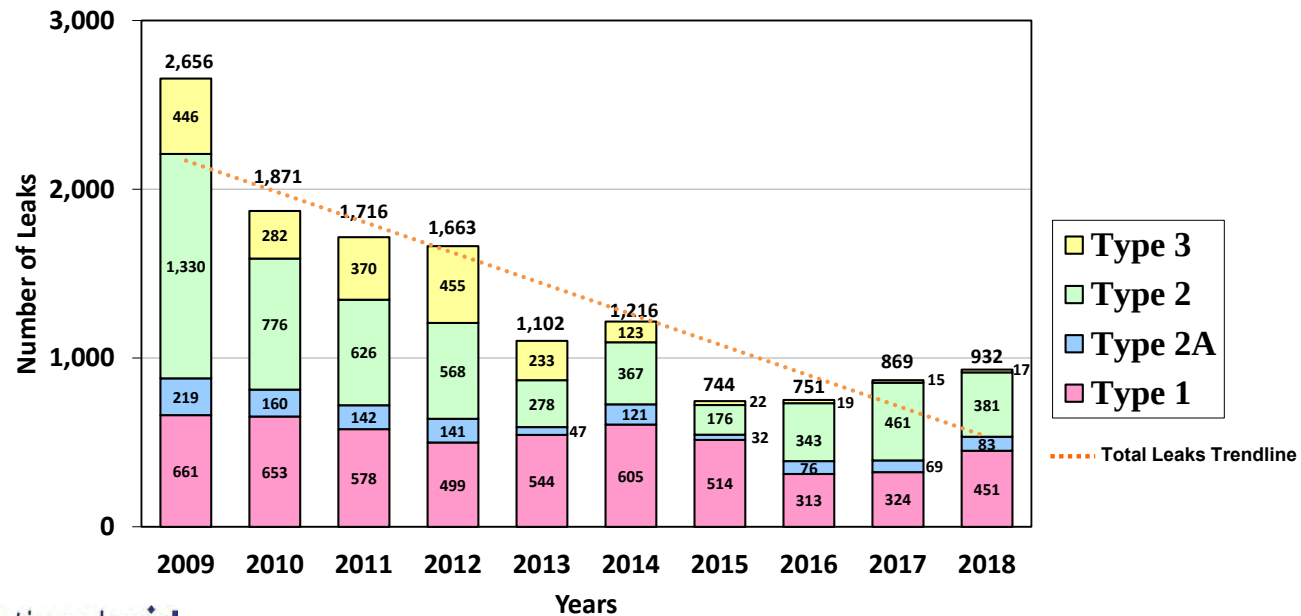


2018 SYSTEM INTEGRITY REPORT

LEAKS REPAIRED

RI By Type MAIN

(Including Damages)



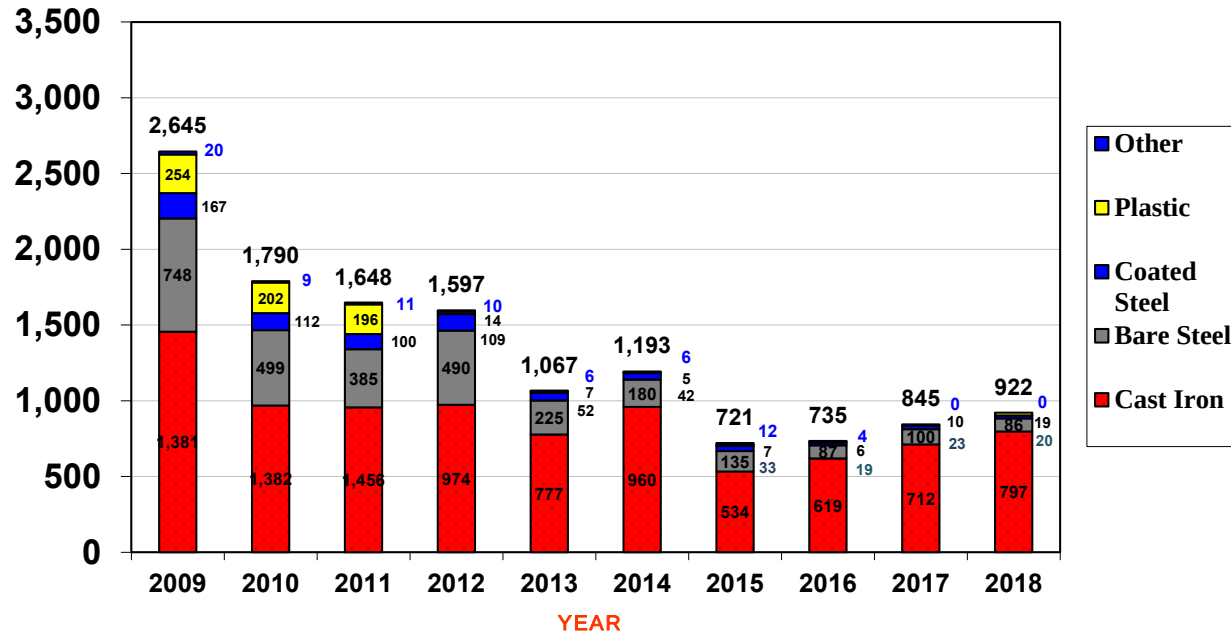
2018 SYSTEM INTEGRITY REPORT

2009 - 2018 MAIN LEAK REPAIRS

All Main Leak Repairs by Material
(Excluding Damages)

NUMBER OF MAIN
LEAK REPAIRS

RI

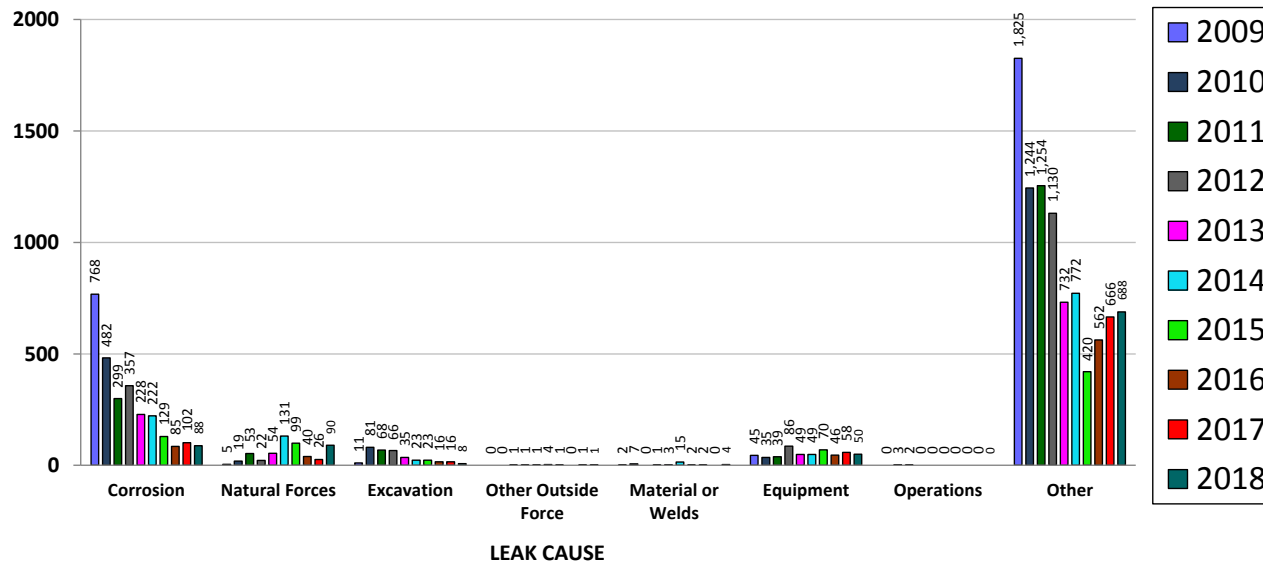


2018 SYSTEM INTEGRITY REPORT

RI

MAIN LEAKS REPAIRED COMPARISON BY LEAK CAUSES

LEAK REPAIRS

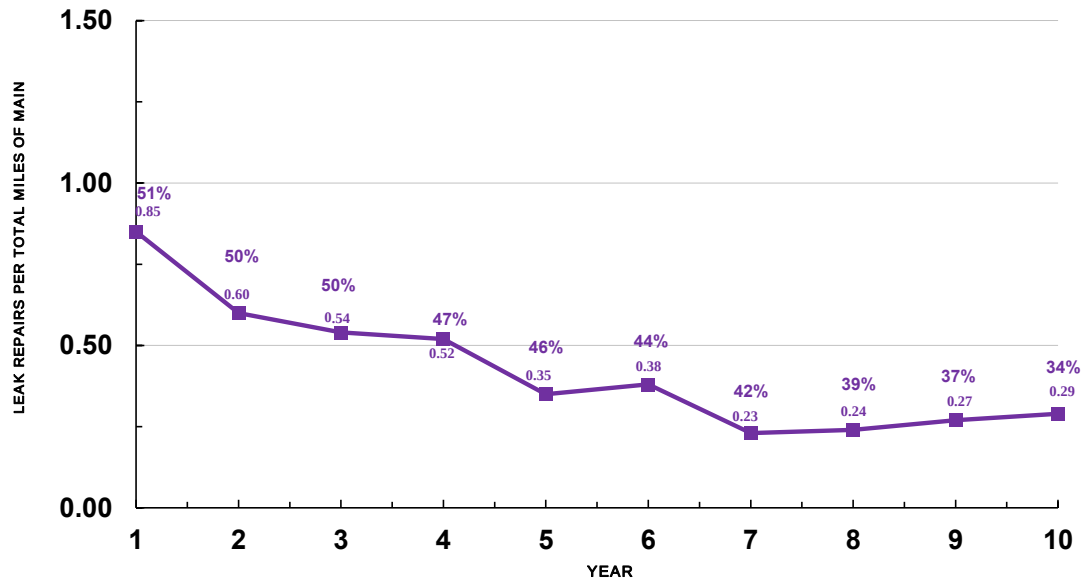


2018 SYSTEM INTEGRITY REPORT

TOTAL MAIN LEAK “RATES”

INCLUDING Damages

PERCENTAGES SHOWN ARE PERCENT OF LEAK-PRONE PIPE

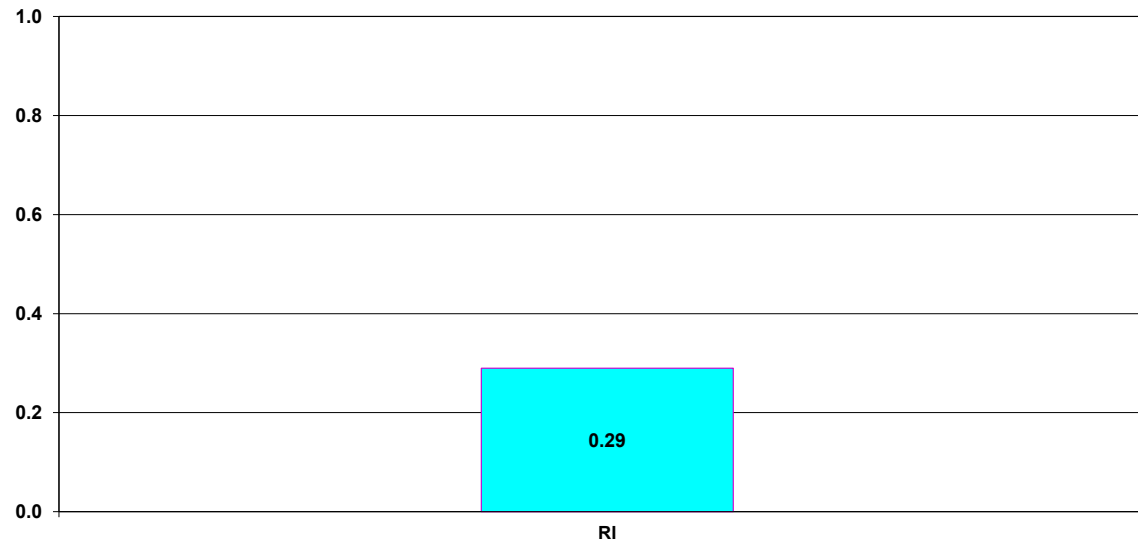


2018 SYSTEM INTEGRITY REPORT

MAIN LEAK “RATES”

Total Main Leak Repairs (incl. damages) / Mile of Total Main

NEW ENGLAND

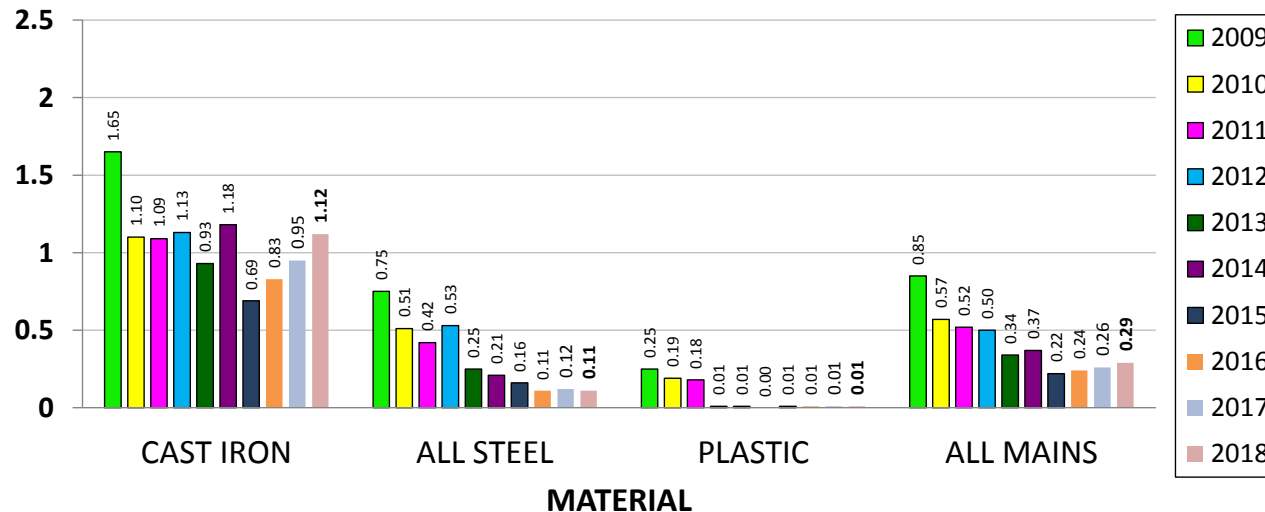


2018 SYSTEM INTEGRITY REPORT

RI

MAIN LEAK “RATES” COMPARISON BY MATERIAL EXCLUDING Damages

LEAK REPAIRS
PER MILE OF MAIN



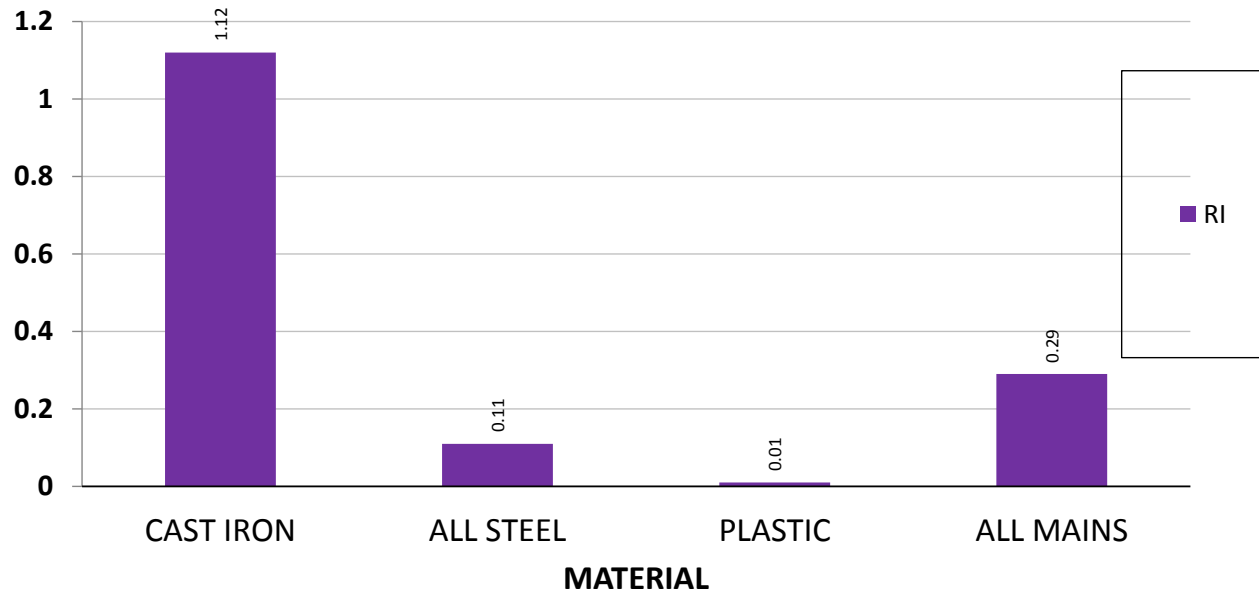
COUNTING EACH INDIVIDUAL REPAIR AS A LEAK

2018 SYSTEM INTEGRITY REPORT

RI

MAIN LEAK “RATES” COMPARISON BY MATERIAL EXCLUDING Damages

LEAK REPAIRS
PER MILE OF MAIN



2018 SYSTEM INTEGRITY REPORT

A CLOSER LOOK AT CAST IRON MAINS

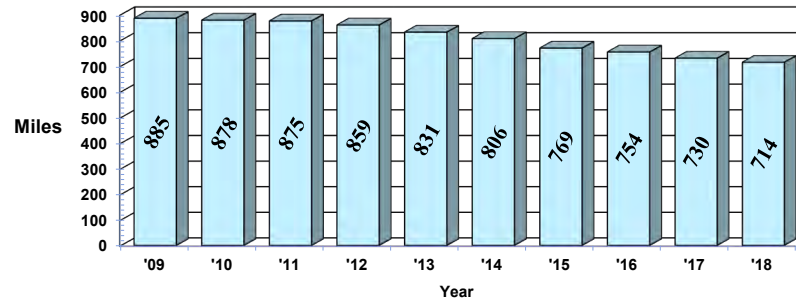


2018 SYSTEM INTEGRITY REPORT

RI

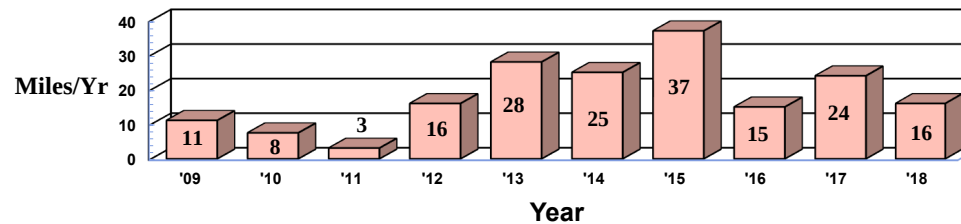
DOT-
Reported
Pipe
Inventories

CAST IRON MAIN INVENTORY



CAST IRON ATTRITION RATE

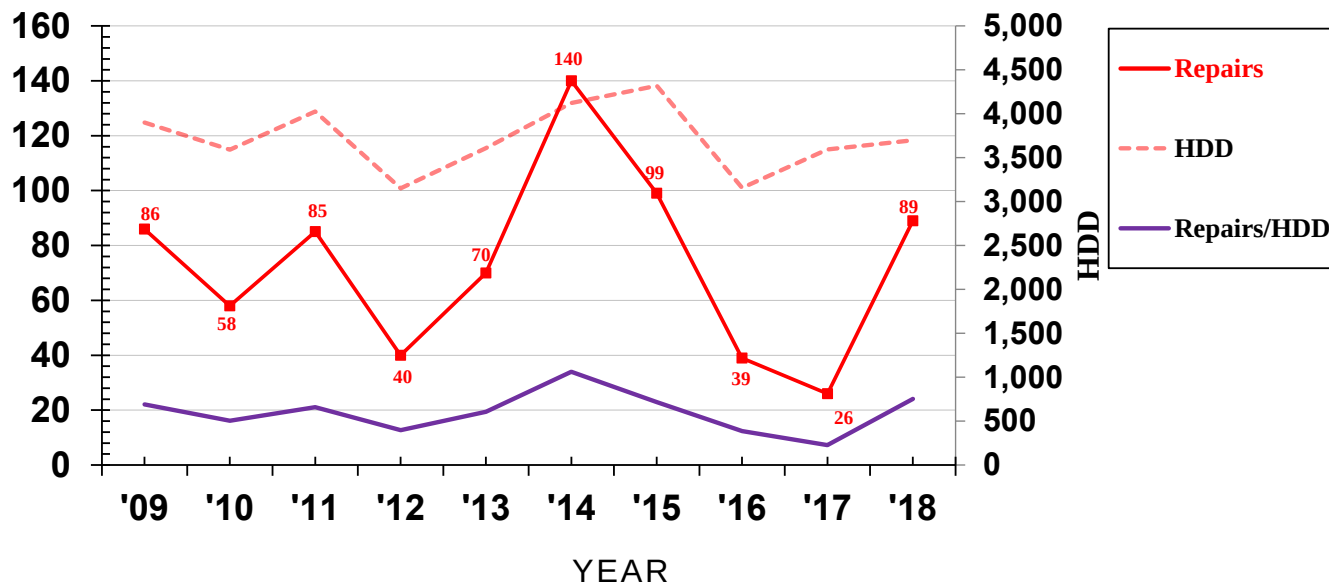
Avg 10-Yr Attrition Rate: 18.27 Miles/Year (2.56%)



2018 SYSTEM INTEGRITY REPORT

RI
BREAKS

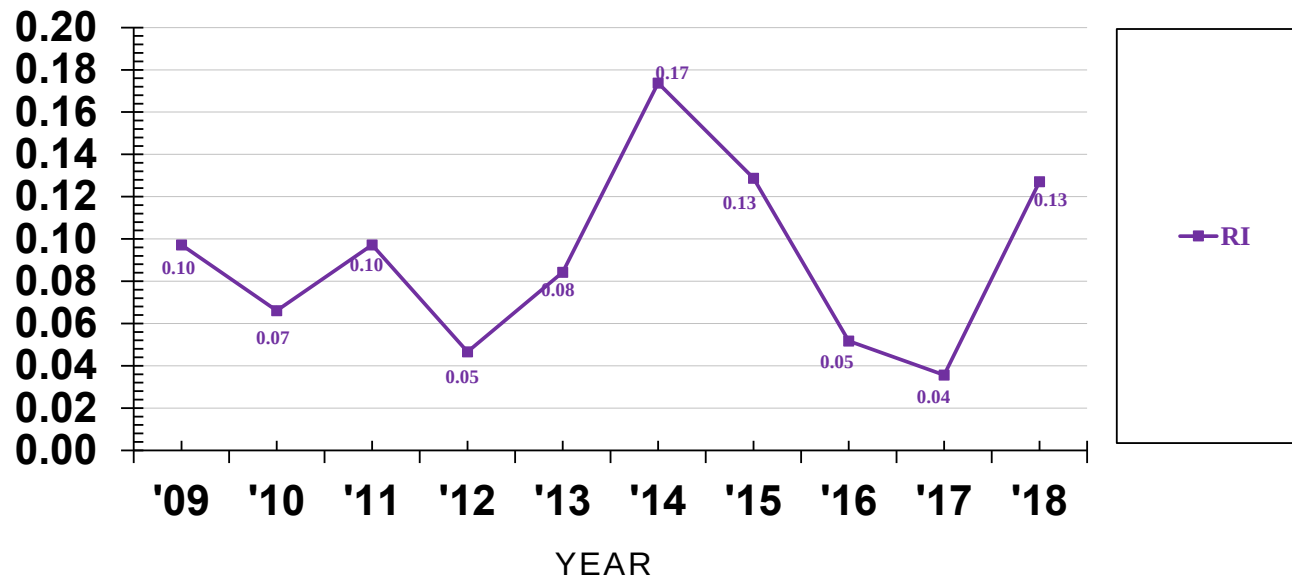
TOTAL CAST IRON MAIN BREAKS - HDD



2018 SYSTEM INTEGRITY REPORT

CAST IRON MAIN BREAK "RATES"

BREAKS
PER MILE

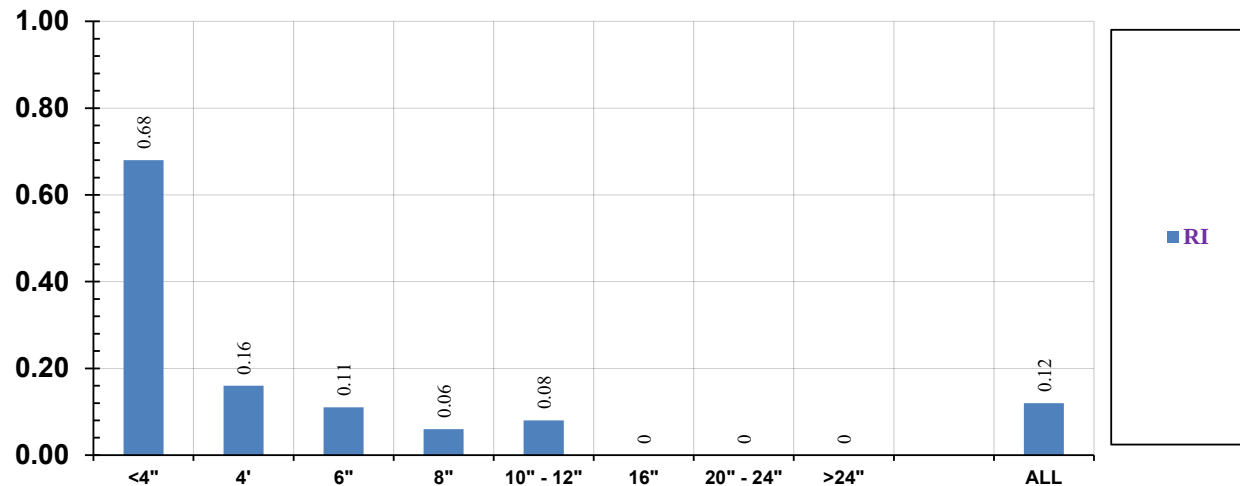


2018 SYSTEM INTEGRITY REPORT

CAST IRON MAIN BREAK “RATES”

“RI” COMPARISON BY DIAMETER

CAST IRON BREAKS
PER MILE OF CI MAIN



DIAMETER

CI Inventory			CI Inventory			CI Inventory			CI Inventory		
Size	2017	2018	Size	2017	2018	Size	2017	2018	Size	2017	2018
< 4"	5 mi	5 mi	6"	303 mi	296 mi	10" - 12"	71 mi	71 mi	20" - 24"	13 mi	13 mi
4"	281 mi	272 mi	8"	31 mi	31 mi	16"	17 mi	17 mi	24"	5 mi	5 mi

2018 SYSTEM INTEGRITY REPORT

A CLOSER LOOK AT STEEL MAINS

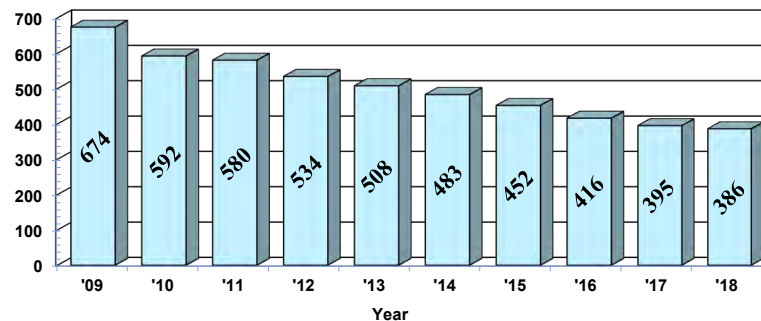


2018 SYSTEM INTEGRITY REPORT

RI

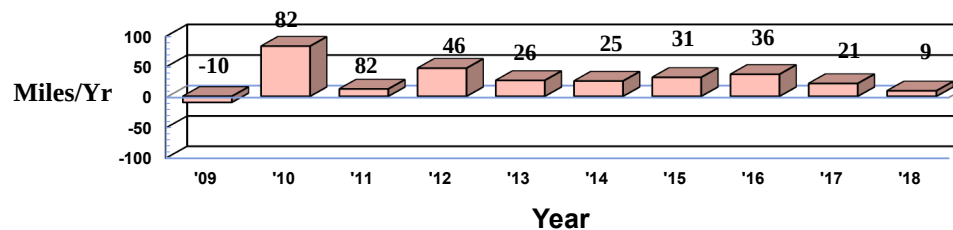
DOT-
Reported
Pipe
Inventories

UNPROTECTED STEEL MAIN INVENTORY



UNPROTECTED STEEL ATTRITION RATE

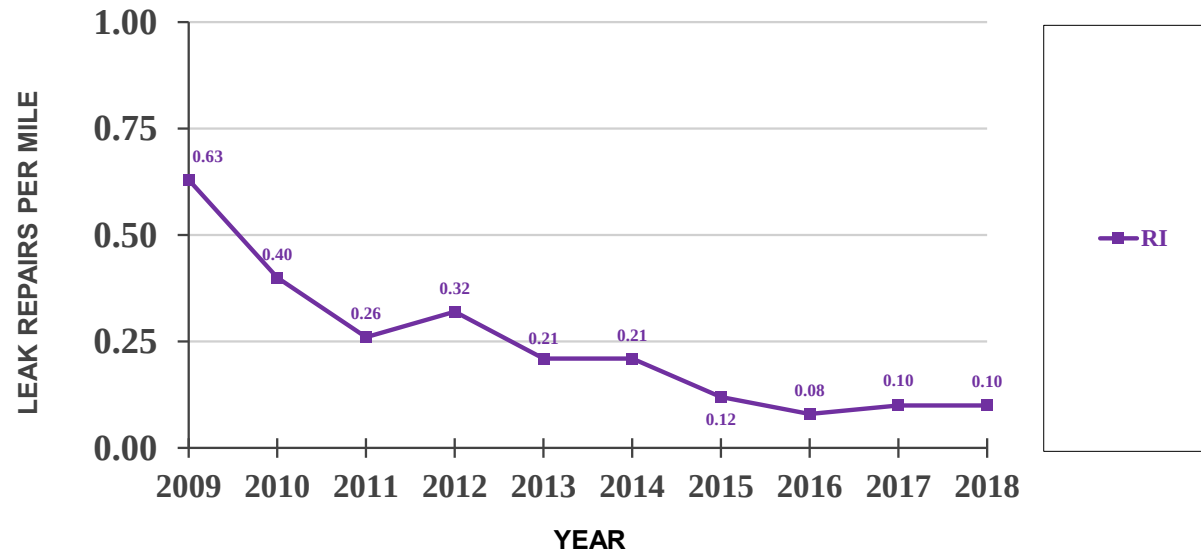
Avg 10 -Yr Attrition Rate: 27.79 Miles/Year (7.20%)



2018 SYSTEM INTEGRITY REPORT

MAIN CORROSION LEAK “RATES” **CORROSION Leak Repairs Per Mile of “TOTAL” Steel**

INCLUDES ALL CORROSION LEAKS, REGARDLESS OF MAIN MATERIAL



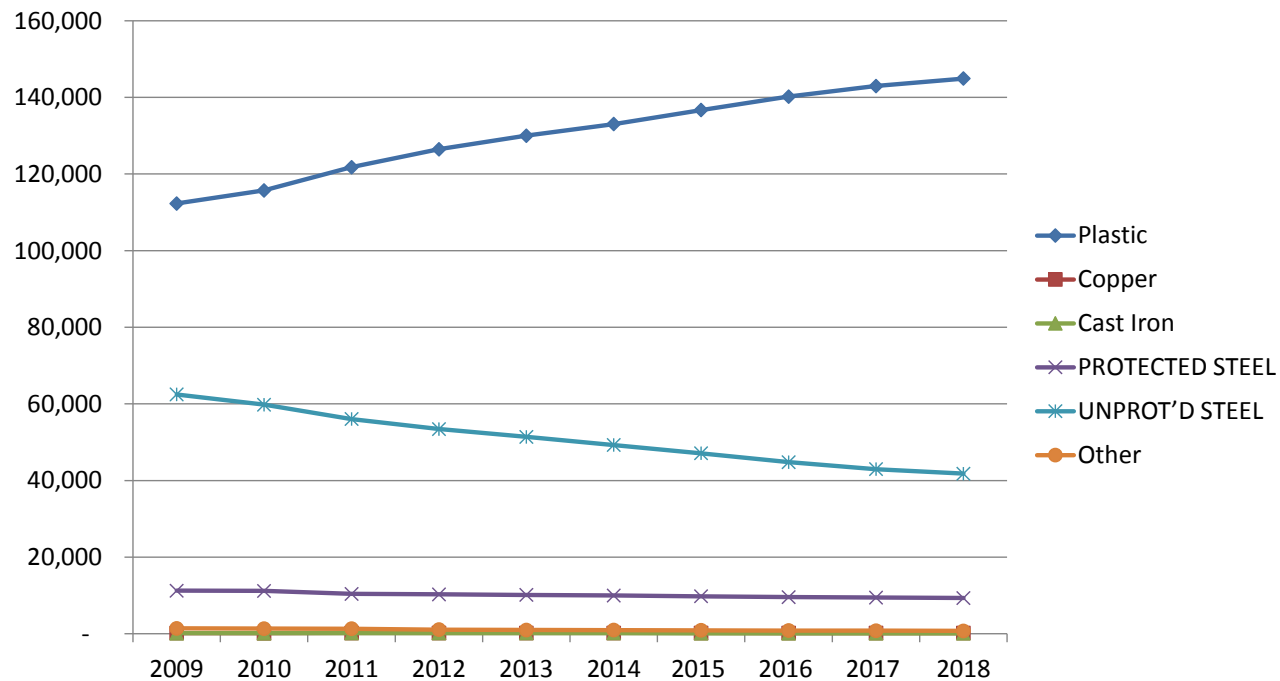
2018 SYSTEM INTEGRITY REPORT

SERVICE INVENTORY ANALYSIS

2018 SYSTEM INTEGRITY REPORT

RI

SERVICE INVENTORY TREND



nationalgrid

Note:

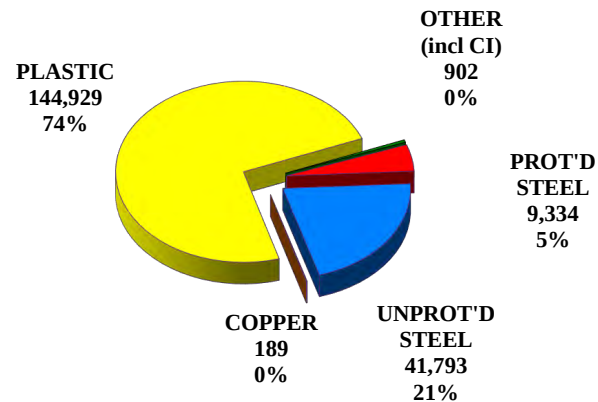
See number of services breakdown in appendix (start from slide 279)
Corrections were applied as of 6/25/19 for this graph.

2018 SYSTEM INTEGRITY REPORT

SERVICE INVENTORY

RI

197,147 SERVICES



2018 SYSTEM INTEGRITY REPORT

SERVICE LEAK REPAIR ANALYSIS

NOTE: Above Ground Leaks, which are included in the DOT Reports (beginning in 2012), are excluded from this report in order to maintain the integrity of our trend analyses for distribution (not CMS) piping.

2018 SYSTEM INTEGRITY REPORT

TOTAL SERVICE LEAK REPAIRS

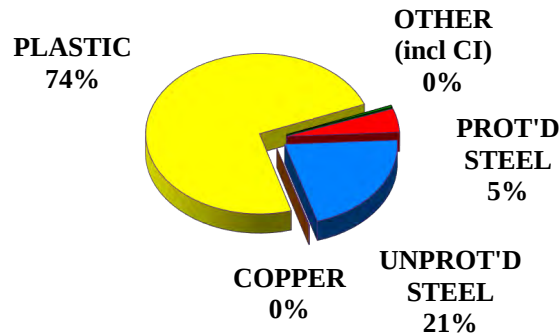
RI

INCLUDING Damages

TOTAL SERVICE INVENTORY

BY MATERIAL

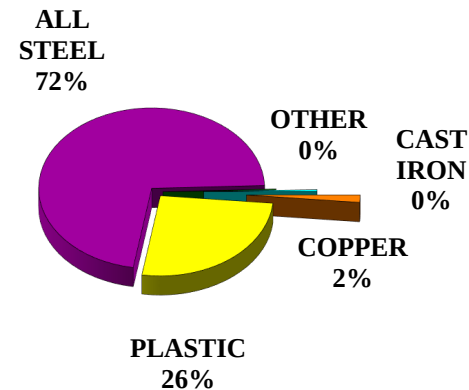
197,147 SERVICES



TOTAL SERVICE LEAK REPAIRS

BY MATERIAL

534 LEAKS

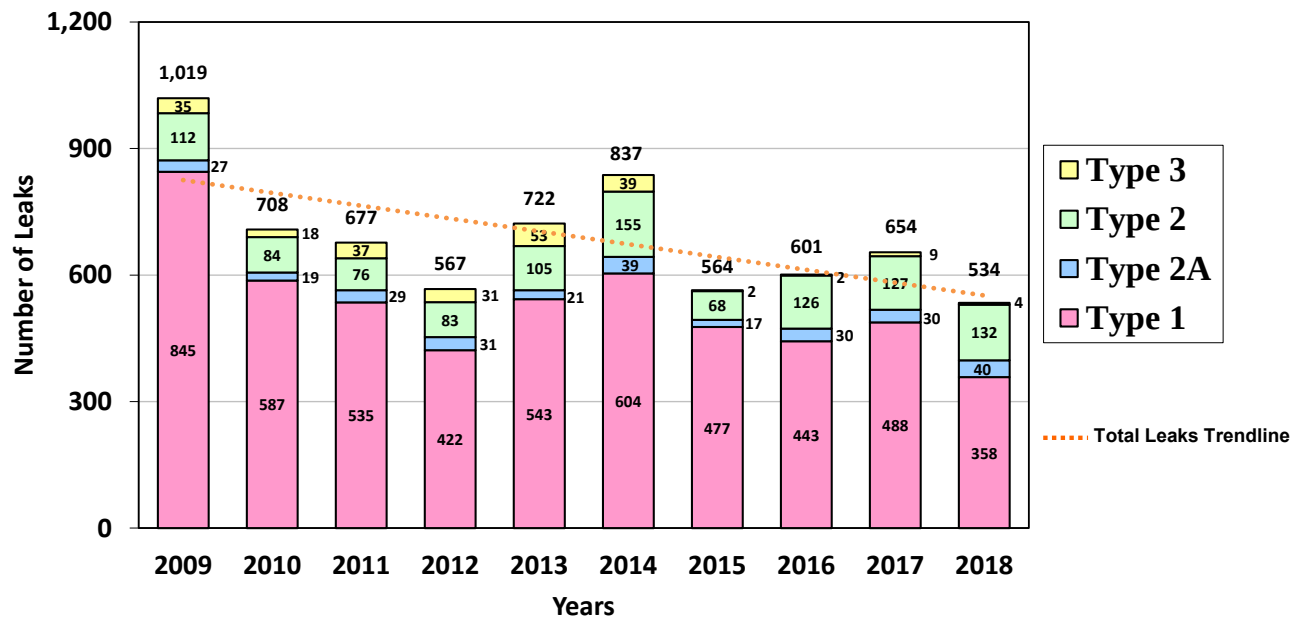


2018 SYSTEM INTEGRITY REPORT

RI

LEAKS REPAIRED By REPAIRED Type (Including Damages)

SERVICE



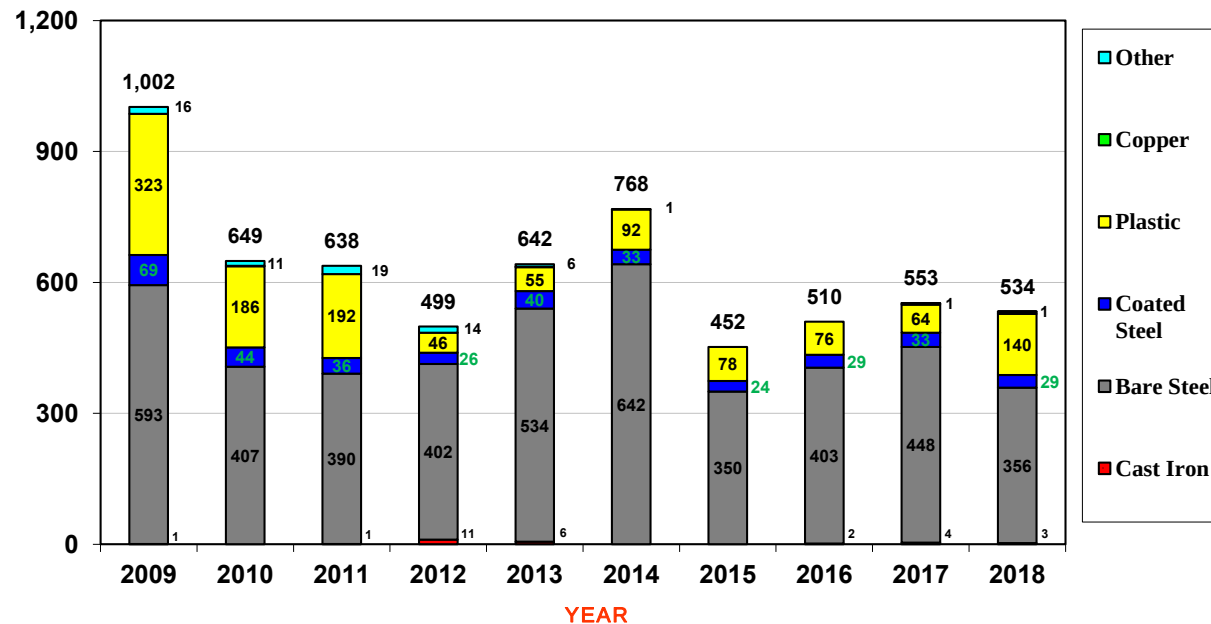
2018 SYSTEM INTEGRITY REPORT

2009 - 2018 SERVICE LEAK REPAIRS

All Service Leak Repairs by Material
(Excluding Damages)

NUMBER OF SVC
LEAK REPAIRS

RI

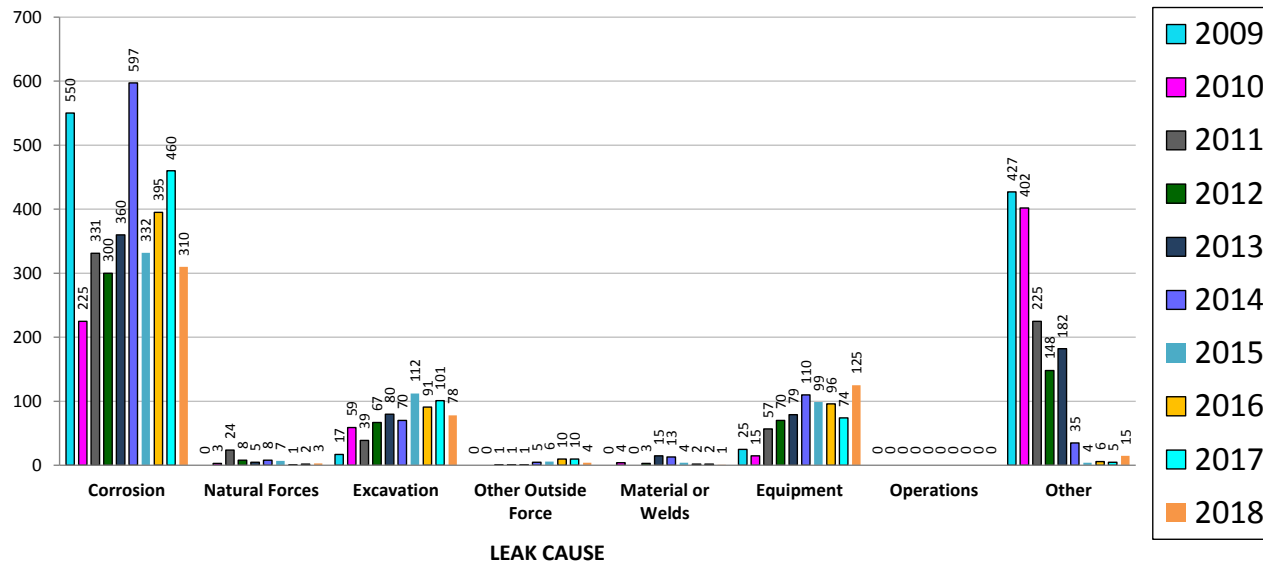


2018 SYSTEM INTEGRITY REPORT

RI

SERVICE LEAKS REPAIRED COMPARISON BY LEAK CAUSES

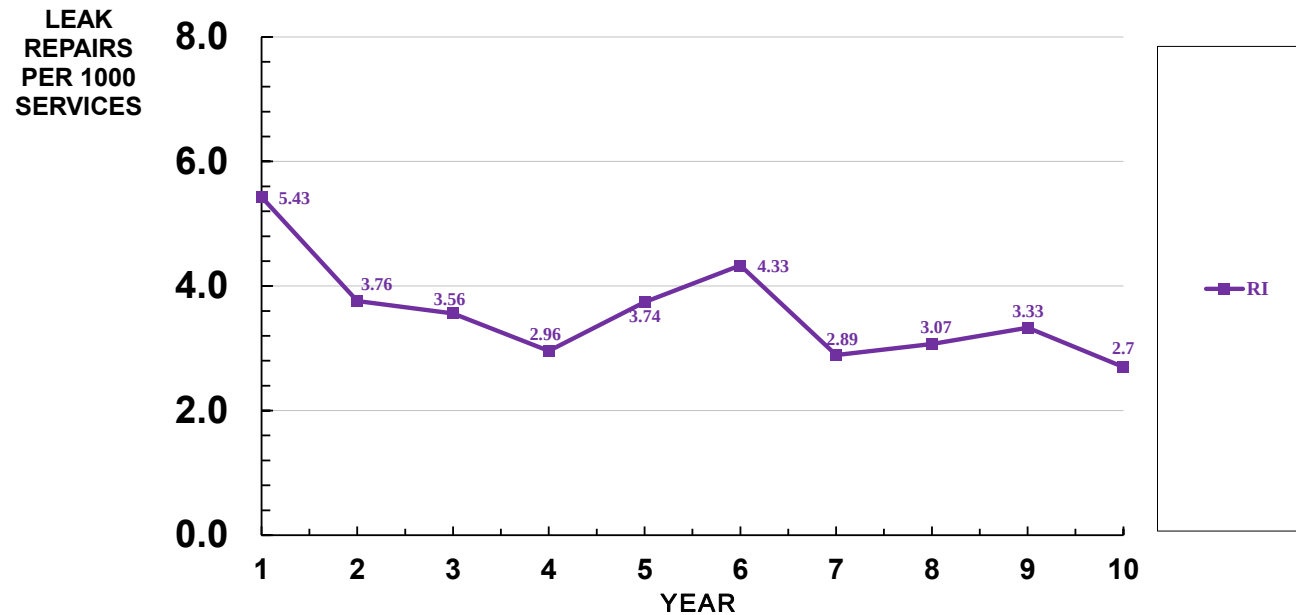
LEAK REPAIRS



2018 SYSTEM INTEGRITY REPORT

TOTAL SERVICE LEAK “RATES”

INCLUDING Damages



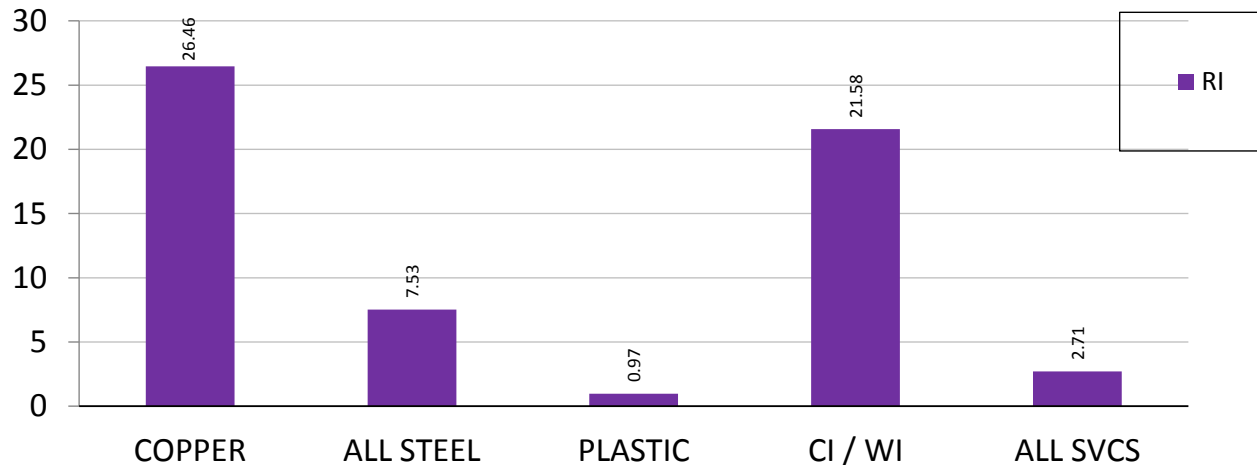
2018 SYSTEM INTEGRITY REPORT

RI

SERVICE LEAK “RATES” COMPARISON BY MATERIAL

EXCLUDING Damages

LEAK REPAIRS
PER 1000 SERVICES



	2017	2018
Plastic	142,956	144,929
Copper	192	189

	2017	2018
Cast Iron	129	127
Total Steel	52,425	51,127

nationalgrid

COUNTING EACH INDIVIDUAL REPAIR AS A LEAK

2018 SYSTEM INTEGRITY REPORT

2017/2018 DISTRIBUTION DOT REPORT DATA COMPARISONS



2018 SYSTEM INTEGRITY REPORT

General Data Correction		LPP			
Explanation Needed		1,100	Main	1,140	Main
Discussed & Approved		42,109	Service	43,290	Service
2017 - 2018 DOT Comparisons		RI			
		2018	2017	Delta(18-17)	%
Main Inventory	Cast Iron	700 miles	730 miles	-29	-4.0%
	Reconditioned Cast Iron	0 miles	0 miles	+0	N/A
	Plastic	1,539 miles	1,476 miles	+63	4.3%
	UP Bare Steel	199 miles	224 miles	-25	-11.2%
	UP Coated Steel	187 miles	171 miles	+16	9.4%
	Total UP Steel	386 miles	395 miles	-9	-2.3%
	CP Bare Steel	0 miles	0 miles	+0	N/A
	CP Coated Steel	562 miles	590 miles	-27	-4.6%
	Total CP Steel	562 miles	590 miles	-27	-4.6%
	Other	0 miles	0 miles	+0	0.0%
	Ductile Iron	14 miles	16 miles	-2	-12.6%
	TOTAL MAIN	3,201 miles	3,205 miles	-4	-0.1%
Main Leaks	Corrosion	102 repairs	102 repairs	+0	0.0%
	Natural Forces	94 repairs	26 repairs	+68	261.5%
	Excavation	12 repairs	16 repairs	-4	-25.0%
	Other Outside Force	1 repairs	1 repairs	+0	0.0%
	Material or Welds	5 repairs	0 repairs	+5	N/A
	Equipment	57 repairs	58 repairs	-1	-1.7%
	Operations	0 repairs	0 repairs	+0	N/A
	Other	756 repairs	666 repairs	+90	13.5%
	TOTAL MAIN LEAKS	1,027 repairs	869 repairs	+158	18.2%
Service Inventory	Copper	189 svcs	192 svcs	-3	-1.6%
	Plastic	144,929 svcs	142,956 svcs	+1973	1.4%
	UP Bare Steel	33,726 svcs	34,701 svcs	-975	-2.8%
	UP Coated Steel	8,067 svcs	8,268 svcs	-201	-2.4%
	Total UP Steel	41,793 svcs	42,969 svcs	-1176	-2.7%
	CP Bare Steel	0 svcs	0 svcs	+0	N/A
	CP Coated Steel	9,334 svcs	9,456 svcs	-122	-1.3%
	Total CP Steel	9,334 svcs	9,456 svcs	-122	-1.3%
	Other	763 svcs	803 svcs	-40	-5.0%
	Cast Iron / Wrought Iron	127 svcs	129 svcs	-2	-1.6%
	TOTAL SERVICES	197,135 svcs	196,505 svcs	+630	0.3%
Service Leaks Excluding Above Ground Leaks	Corrosion	333 repairs	460 repairs	-127	-27.6%
	Natural Forces	3 repairs	2 repairs	+1	50.0%
	Excavation	88 repairs	101 repairs	-13	-12.9%
	Other Outside Force	5 repairs	10 repairs	-5	-50.0%
	Material or Welds	2 repairs	2 repairs	+0	0.0%
	Equipment	135 repairs	74 repairs	+61	82.4%
	Operations	0 repairs	0 repairs	+0	N/A
	Other	20 repairs	5 repairs	+15	300.0%
	TOTAL SVC LEAKS	586 repairs	654 repairs	-68	-10.4%
Service Leaks Including Above Ground Leaks	Corrosion	333 repairs	460 repairs	-127	-27.6%
	Natural Forces	3 repairs	2 repairs	+1	50.0%
	Excavation	88 repairs	101 repairs	-13	-12.9%
	Other Outside Force	7 repairs	13 repairs	-6	-46.2%
	Material or Welds	2 repairs	2 repairs	+0	0.0%
	Equipment	135 repairs	74 repairs	+61	82.4%
	Operations	0 repairs	0 repairs	+0	N/A
	Other	20 repairs	5 repairs	+15	300.0%
	TOTAL SVC LEAKS	588 repairs	657 repairs	-69	-10.5%
Total Leak Repairs (Main & Service) Excluding Above Ground Leak		1,613 repairs	1,523 repairs	+90	5.9%
Total Leak Repairs (Main & Service) Including Above Ground Leak		1,615 repairs	1,526 repairs	+89	5.8%
Workable Backlog As of 12/31		169 leaks	74 leaks	+95	128.4%
UFG (Net)		2.5%	2.2%	0.30%	13.6%
Average Service Length (Ft)		66.5 ft	66.5 ft	+0	0.0%

Data Shown Includes Filed Revisions

2018 SYSTEM INTEGRITY REPORT

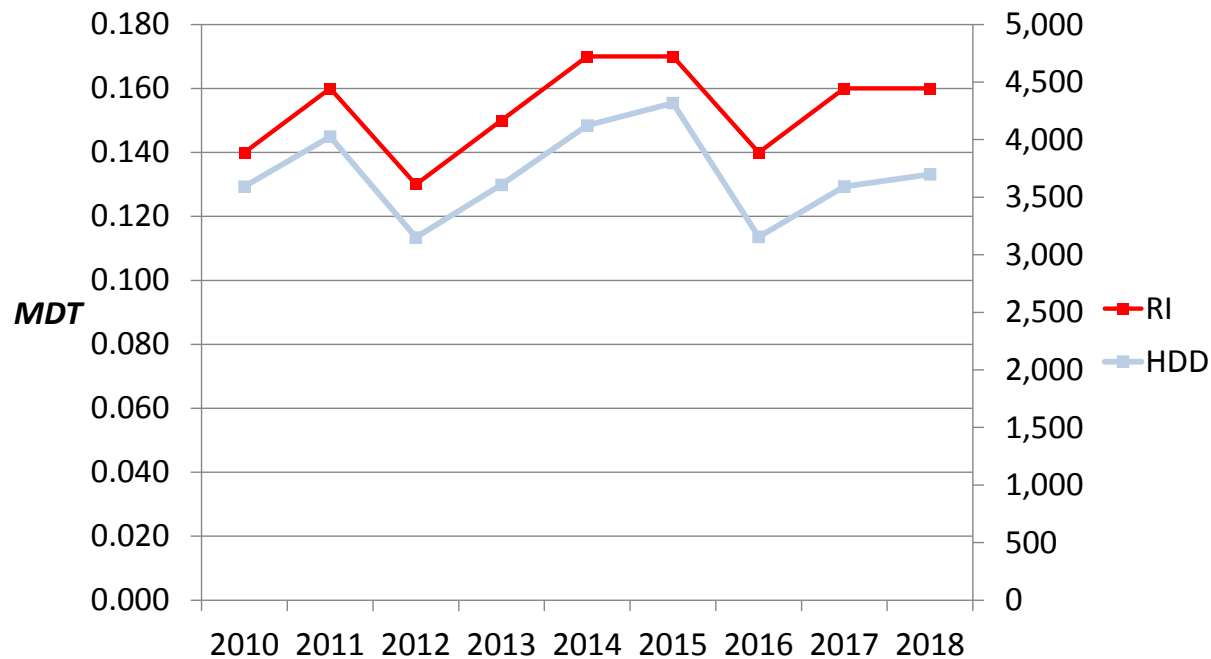
NATIONAL GRID-US 2018 GAS DISTRIBUTION SYSTEM STATISTICS



2018 SYSTEM INTEGRITY REPORT

RI

AVG. CUSTOMER USED RATE



Note:

- Customer Used = Sendout (MDT) / Total Customer (see slide 225)
- Total Customer includes Residential and Commercial
- Heating Degree Days (HDD)
- Million Dekatherm (MDT)

2018 SYSTEM INTEGRITY REPORT

2018 GAS DISTRIBUTION SYSTEM STATISTICS

STATE	LEGACY	2018 PIPELINE / CUSTOMER / SENDOUT STATISTICS									
		Miles of Main	# of Services	Avg Service Length (ft/svc)	Miles of Services	TOTAL Distribution Pipeline	Residential Customers	Commercial and Industrial Customers	TOTAL Customers	Sendout (MDT)	Sendout (MDT)/ HDD
	NYC	4,156	569,988	45	4,858	9,014	1,194,771	73,018	1,267,789	206,995	59
	LI	8,253	550,950	65	6,783	15,036	540,268	62,489	602,757	108,941	31
	UPSTATE	8,820	566,339	73	7,819	16,639	576,024	47,688	623,712	173,868	38
ALL NEW YORK STATE		21,229	1,687,277	60.9	19,460	40,689	2,311,063	183,195	2,494,258	489,804	42
	BGC/EGC	7,240	563,962	49.0	5,232	12,472	655,202	59,871	715,073	126,715	33
	CCC/CLW	3,890	197,420	73.9	2,765	6,655	191,725	19,336	211,061	27,389	7
	RI	3,201	197,147	66.5	2,483	5,684	246,215	25,576	271,791	43,889	12
NEW ENGLAND		14,331	958,529	57.7	10,480	24,811	1,093,141	104,784	1,197,925	197,993	17
TOTAL NGRID-US		35,560	2,645,806	59.7	29,939	65,499	3,404,205	287,978	3,692,183	687,797	30

CAUTION:

This chart is for comparative-illustrative purposes only. The data is not audited & many assumption have been made.

Inventory data is from the Annual DOT/PHMSA Distribution Reports.

Customer data is from the Gas Customer Data base- Active Gas Accounts

Sendout data is from the sendouts for the 12-month period used to calculate UFG for the DOT Reports.

2018 SYSTEM INTEGRITY REPORT

2018 GAS DISTRIBUTION SYSTEM STATISTICS													
STATE	LEGACY	PERCENTAGES OF NGRID-US SYSTEM					ASSET RATIOS			GAS CONSUMPTION RATIOS			
		% of Main	% of Services	% of Distribution Pipeline	% of Customers	% of Sendout	Service Density (Svcs / Mile Main)	Meter Density (Customers / Service)	Customer Density (Customers / Mile Total Pipeline)	Main Capacities Used (Sendout MDT / Mile Main)	Service Capacities Used (Sendout MDT / Service)	Pipeline Capacities Used (Sendout MDT / Mile Total Pipe)	Customer Usage (Sendout MDT / Customer)
	NYC	11.7%	21.5%	13.8%	34.3%	30.1%	137	2.2	140.6	49.81	0.36	22.96	0.163
	LI	23.2%	20.8%	23.0%	16.3%	15.8%	67	1.1	40.1	13.20	0.20	7.25	0.181
	UPSTATE	24.8%	21.4%	25.4%	16.9%	25.3%	64	1.1	37.5	19.71	0.31	10.45	0.279
	ALL NEW YORK STATE	59.7%	63.8%	62.1%	67.6%	71.2%	79	1.5	61.3	23.07	0.29	12.04	0.196
	BGC/EGC	20.4%	21.3%	19.0%	19.4%	18.4%	78	1.3	57.3	17.50	0.22	10.16	0.177
	CCC/CLW	10.9%	7.5%	10.2%	5.7%	4.0%	51	1.1	31.7	7.04	0.14	4.12	0.130
	RI	9.0%	7.5%	8.7%	7.4%	6.4%	62	1.4	47.8	13.71	0.22	7.72	0.161
	NEW ENGLAND	40.3%	36.2%	37.9%	32.4%	28.8%	67	1.2	48.3	13.82	0.21	7.98	0.165
	TOTAL NGRID-US	100%	100%	100%	100%	100%	74	1.4	56.4	19.34	0.26	10.50	0.186

2018 SYSTEM INTEGRITY REPORT

SEPARATE LEAK-PRONE PIPE ANALYSIS

STATE	LEGACY	2018 LEAK-PRONE PIPE INVENTORY						LEAK-PRONE PIPE %'s		
		Leak - Prone Main (miles)	% of TOTAL Main	Leak - Prone Services (#)	% of TOTAL Services	Miles of Leak - Prone Services	TOTAL Leak - Prone Pipe (in miles)	% of NG- US Leak - Prone Main (miles)	% of NG-US Leak - Prone Services (#)	% of NG-US TOTAL Leak - Prone Pipe
	NYC	1,565	37.7%	129,761	22.8%	1,106	2,671	16.7%	25.6%	17.8%
	LI	3,075	37.3%	79,730	14.5%	982	4,057	32.8%	15.7%	27.0%
	UPSTATE	566	6.4%	136,519	24.1%	1,885	2,451	6.0%	26.9%	16.3%
ALL NEW YORK STATE		5,206	24.5%	346,010	20.5%	3,972	9,178	55.5%	68.3%	61.1%
	BGC/EGC	2,896	40.0%	110,902	19.7%	1,029	3,925	30.8%	21.9%	26.1%
	CCC/CLW	186	4.8%	7,787	3.9%	109	295	2.0%	1.5%	2.0%
	RI	1,100	34.4%	42,121	21.4%	531	1,631	11.7%	8.3%	10.8%
NEW ENGLAND		4,182	29.2%	160,810	16.8%	1,669	5,851	44.5%	31.7%	38.9%
TOTAL NGRID-US		9,388	26.4%	506,820	19.2%	5,641	15,029	100%	100%	100%

NOTES:

Leak-Prone Main includes Cast Iron/Wrought Iron, Unprotected Steel , Aldyl-A and Other Material.
Leak-Prone Service includes Cast Iron/Wrought Iron, Copper and Unprotected Steel.

2018 SYSTEM INTEGRITY REPORT

LEAK AND REPAIR ANALYSIS											
STATE	LEGACY	2018 LEAK DATA				LEAK RATE RATIOS					
		TOTAL Leak Receipts (Main & Service)	TOTAL Leak Repairs (Main & Service)	Year-End Workable Leak Backlog	TOTAL Repairs + Workable Leaks	TOTAL Leak Receipts / Mile TOTAL Pipe	TOTAL Leak Repairs / Mile TOTAL Pipe	TOTAL Leak Repairs / Mile TOTAL Pipe	TOTAL Leak Repairs / Mile TOTAL Pipe	Repairs + Workables / Mile TOTAL Pipe	Repairs + Workable / Mile Leak- Prone Pipe
	NYC	4,171	4,813	10	4,823	0.5	1.6	0.5	1.8	0.5	1.8
	LI	3,452	3,214	-	3,214	0.2	0.9	0.2	0.8	0.2	0.8
	UPSTATE	1,549	1,355	-	1,355	0.1	0.6	0.1	0.6	0.1	0.6
ALL NEW YORK STATE		9,172	9,382	10	9,392	0.2	1.0	0.2	1.0	0.2	1.0
	BGC/EGC	6,951	6,645	1,397	8,042	0.6	1.8	0.5	1.7	0.6	2.0
	CCC/CLW	707	869	17	886	0.1	2.4	0.1	2.9	0.1	3.0
	RI	1,989	1,466	169	1,635	0.3	1.2	0.3	0.9	0.3	1.0
NEW ENGLAND		9,647	8,980	1,583	10,563	0.4	1.6	0.4	1.5	0.4	1.8
TOTAL NGRID-US		18,819	18,362	1,593	19,955	0.3	1.3	0.3	1.2	0.3	1.3

NOTES:

TOTAL Leak Receipts (Main & Service) data excludes Excavation Leaks.

TOTAL Leak Repairs (Main & Service) data includes Excavation Leaks.

TOTAL Leak Repairs (Main & Service) data excludes Above Ground Leaks.

2018 SYSTEM INTEGRITY REPORT

2018 SYSTEM INTEGRITY REPORT ANALYSIS (FINDINGS AND EXPLANATIONS)



2018 SYSTEM INTEGRITY REPORT

ANALYSIS OF FINDINGS AND EXPLANATIONS

FINDING 2:

RI

Total leak receipts have increased by 3% (65) in 2018 compared to 2017.

MAIN – Leak repairs have increased by 7% (63) in 2018 compared to 2017. Total Cast Iron Joint leaks comprise 74% of all main leaks.

SERVICE – Leak repairs have decreased by 18% (120) compared to 2017. Corrosion leaks comprise 44% of all service leaks.

TOTAL – Gas leak repairs decreased by 3% (53) in 2018.

		CY12	CY13	CY14	CY15	CY16	CY17	CY18	CY19	CY20	CY21	CY22	CY23	CY24	CY25
BGC	All Programs	109.4	95.8	110.0	101.1	123.8	91.2	47.4	110	111	117	110	132	135	138
	Proactive	75.8	69.1	54.8	40.2	61.4	63.6	23.2	56.0	59.0	62.1	54.4	66.0	69.0	70.0
CLC	All Programs	63.2	42.6	48.6	39.6	38.2	44.7	26.3	34	28	25	20	20	20	20
	Proactive	60.6	40.3	45.8	33.7	33.7	39.5	24.3	30	25	23	19	19	18	18
NE Leak Prone Pipe Replacement															
MA	All Programs	172.6	138.4	158.6	140.7	162.0	165.9	73.7	144	141	142	140	152	155	158
	Proactive	136.4	109.4	100.6	73.9	95.1	103.1	47.5	86	84	85	83	66	69	70
RI	All Programs	54.3	44.0	28.8	56.0	62.7	63.3	67.0	55	55	70	70	70	70	70
	Proactive	50.0	39.9	23.0	50.3	51.0	48.3	51.2	42	42	49	49	53	54	59
CLC	All Programs	63.2	42.6	48.6	39.6	38.2	44.7	26.3	34	28	25	20	20	20	20
	Proactive	60.6	40.3	45.8	33.7	33.7	39.5	24.3	30	25	23	19	19	18	18
MA	All Programs	172.6	138.4	158.6	140.7	162.0	165.9	73.7	144	141	142	140	152	155	158
	Proactive	136.4	109.4	100.6	73.9	95.1	103.1	47.5	86	84	85	83	66	69	70
RI	All Programs	54.3	44.0	28.8	56.0	62.7	63.3	67.0	55	55	70	70	70	70	70
	Proactive	50.0	39.9	23.0	50.3	51.0	48.3	51.2	42	42	49	49	53	54	59

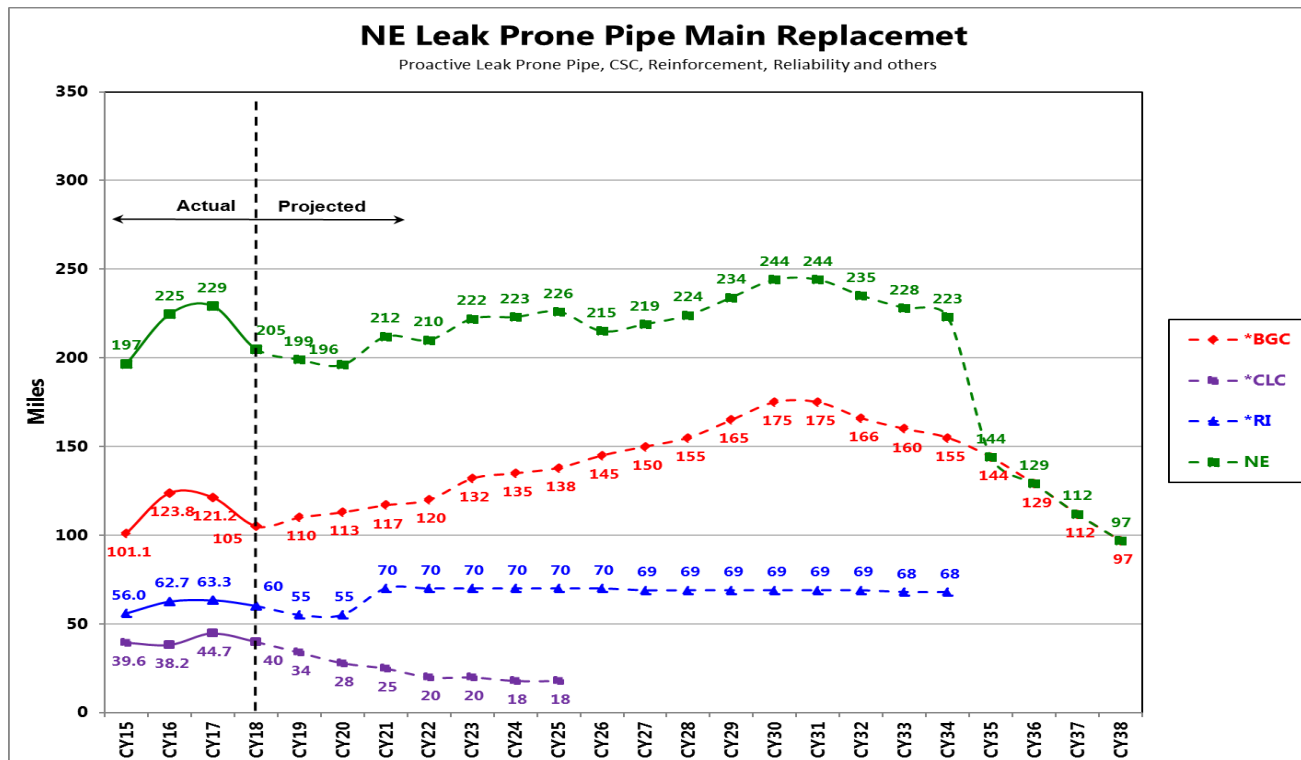
2018 SYSTEM INTEGRITY REPORT

Cast Iron/Unprotected Steel Ratio

Calendar Years		2015	2016	2017	2018
NE - Cast Iron / Unprotected Steel					
BGS	Cast Iron	69.1	53.6	64.4	21.3
CLC	Unp. Steel	32.0	70.2	59.3	26.1
	Cast Iron	5.4	3.4	4.6	2.1
	Unp. Steel	34.2	34.8	41.6	24.2
MA	Cast Iron	74.5	56.9	69.0	23.4
	Unp. Steel	66.2	105.0	100.9	50.3
RI	Cast Iron	29.4	19.8	24.7	28.3
	Unp. Steel	39.5	41.0	28.5	39.2
CLC	Cast Iron	5.4	3.4	4.6	2.1
	Unp. Steel	34.2	34.8	41.6	24.2
MA	Cast Iron	74.5	56.9	69.0	23.4
	Unp. Steel	66.2	105.0	100.9	50.3
RI	Cast Iron	29.4	19.8	24.7	28.3
	Unp. Steel	39.5	41.0	28.5	39.2

2018 SYSTEM INTEGRITY REPORT

NE - MA & RI



2018 SYSTEM INTEGRITY REPORT

2018 METER STATISTICS

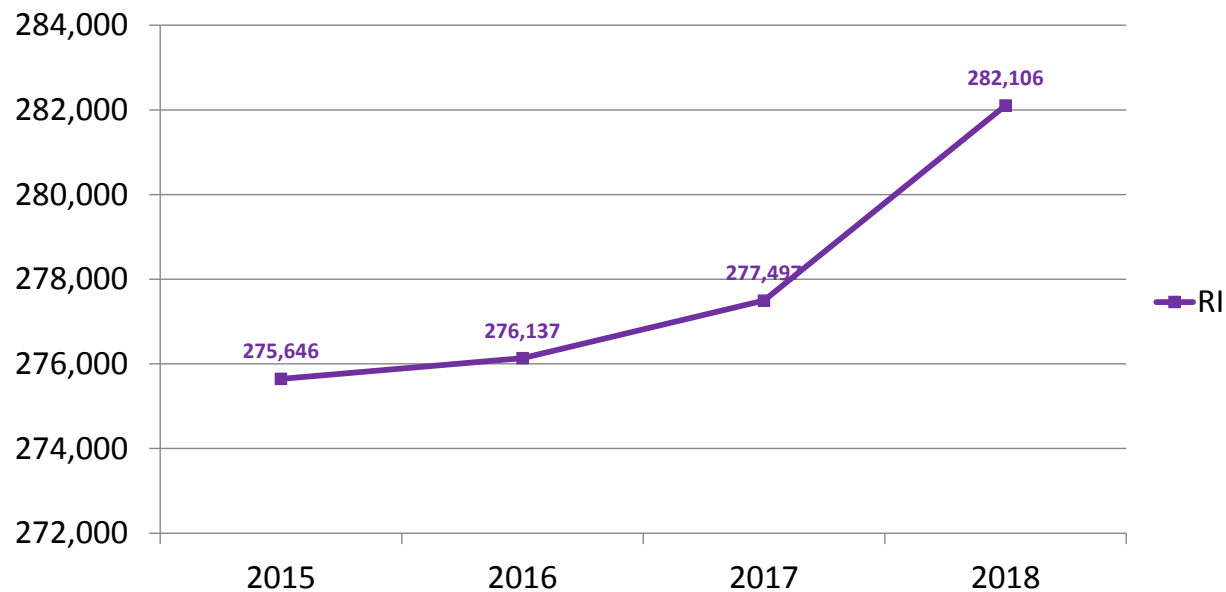


2018 SYSTEM INTEGRITY REPORT

RI

Meter Population

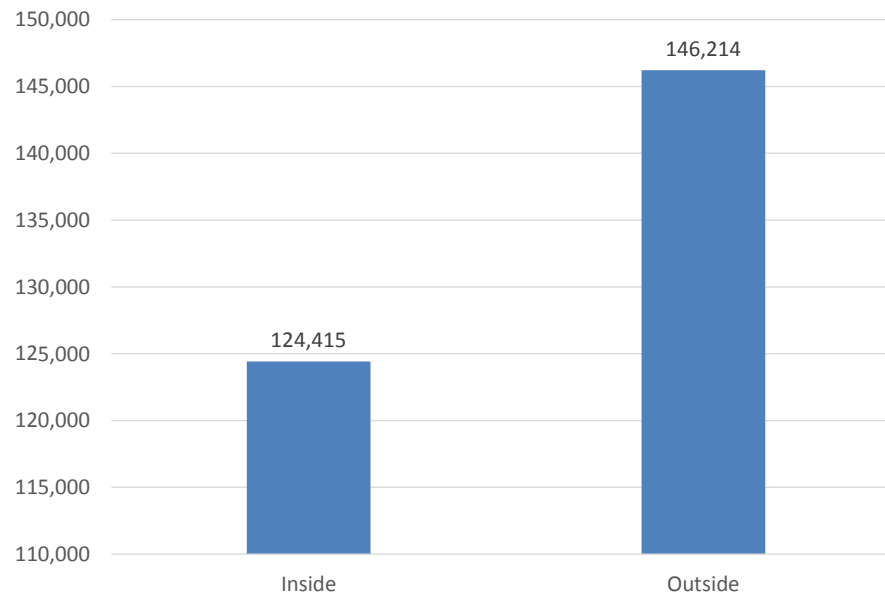
RI



2018 SYSTEM INTEGRITY REPORT

RI

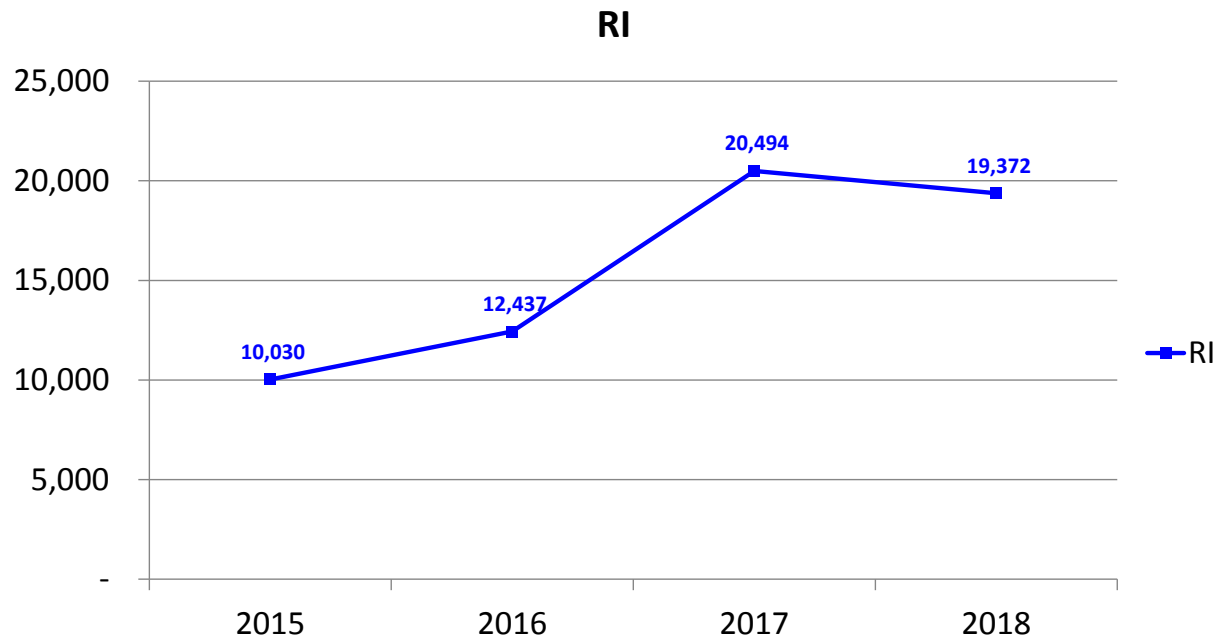
Meter Population Inside VS Outside



2018 SYSTEM INTEGRITY REPORT

RI

Meter Changes



2018 SYSTEM INTEGRITY REPORT

APPENDICES

2018 SYSTEM INTEGRITY REPORT

2018 TOTAL LEAK RECEIPTS

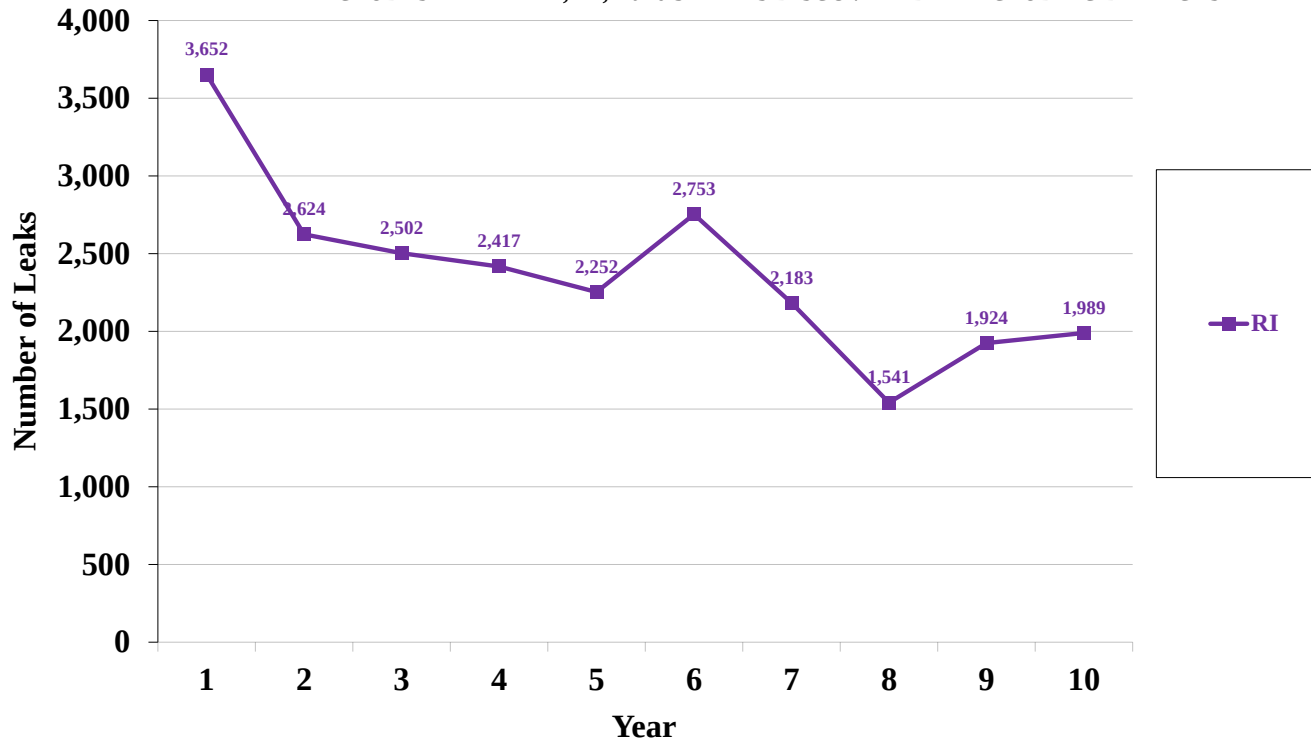


2018 SYSTEM INTEGRITY REPORT

RI

TOTAL LEAK RECEIPTS

INCLUDES ALL TYPE 1, 2A, 2 and 3 LEAKS DISCOVERED - EXCLUDING DAMAGES



2018 SYSTEM INTEGRITY REPORT

2018 MATERIAL CAUSE MATRIX (MAIN LEAK REPAIR)



2018 SYSTEM INTEGRITY REPORT

RI 2018 MAIN LEAKS MATERIAL-CAUSE MATRIX

	<u>CORROSION</u>	<u>MATL/WELD</u>	<u>NAT FORCE</u>	<u>OTH OS FRC</u>	<u>EQUIPMENT</u>	<u>OPERATIONS</u>	<u>CI JT/OTHER</u>	<u>DAMAGES</u>	<u>ALL CAUSES</u>
CAST IRON	9	1	89	0	25	0	679	1	804
STEEL	79	0	0	0	20	0	7	0	106
BARE	69	0	0	0	14	0	3	0	86
COATED	10	0	0	0	6	0	4	0	20
PLASTIC	0	3	1	1	5	0	2	7	19
OTHER	0	0	0	0	0	0	0	0	0
ALL MAINS	88	4	90	1	50	0	688	8	929

COUNTING EACH INDIVIDUAL REPAIR AS A LEAK

2018 SYSTEM INTEGRITY REPORT

2018 MATERIAL CAUSE MATRIX (SERVICE LEAK REPAIR)



2018 SYSTEM INTEGRITY REPORT

RI

2018 SERVICE LEAKS MATERIAL-CAUSE MATRIX

	<u>CORROSION</u>	<u>MATL/WELD</u>	<u>NAT FORCE</u>	<u>OTH OS FRC</u>	<u>EQUIPMENT</u>	<u>OPERATIONS</u>	<u>OTHER</u>	<u>DAMAGES</u>	<u>ALL CAUSES</u>
CAST IRON	0	0	1	0	1	0	0	0	2
COPPER	4	0	0	0	1	0	1	2	8
STEEL	303	1	1	0	52	0	8	20	385
BARE	287	0	1	0	43	0	6	19	356
COATED	16	1	0	0	9	0	2	1	29
PLASTIC	2	0	1	4	71	0	6	56	140
OTHER	1	0	0	0	0	0	0	0	1
ALL SVCS	310	1	3	4	125	0	15	78	536

COUNTING EACH INDIVIDUAL REPAIR AS A LEAK

2018 SYSTEM INTEGRITY REPORT

MAIN INVENTORY



2018 SYSTEM INTEGRITY REPORT

RI

MAIN INVENTORY (MILES)

Average Age
Of All RI
Distribution Main:
43.81 Years

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Plastic	1,002	1,044	1,103	1,168	1,227	1,287	1,378	1,417	1,476	1,539
Cast Iron	885	878	875	859	831	806	769	754	730	700
Recond. Cast Iron	-	-	-	-	-	-	-	-	-	-
PROTECTED STEEL	551	601	588	597	596	595	595	590	590	562
UNPROTD STEEL	674	592	580	534	508	483	452	416	395	386
Other	-	-	-	-	-	-	-	-	-	-
Ductile Iron	17	17	17	16	16	16	16	16	16	14
TOTAL MAIN	3,129	3,132	3,163	3,174	3,179	3,188	3,210	3,193	3,205	3,201

2018 SYSTEM INTEGRITY REPORT

SERVICE INVENTORY



2018 SYSTEM INTEGRITY REPORT

RI SERVICE INVENTORY (NUMBER OF SERVICES)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Plastic	112,313	115,718	121,770	126,474	130,002	133,024	136,700	140,206	142,956	144,929
Copper	177	171	209	208	207	205	202	201	192	189
Cast Iron	168	162	194	189	185	174	137	134	129	127
PROTECTED STEEL	11,260	11,206	10,422	10,285	10,150	9,989	9,800	9,585	9,456	9,334
UNPROTD STEEL	62,462	59,800	56,049	53,449	51,387	49,265	47,104	44,806	42,969	41,793
Other	1,405	1,348	1,322	1,085	1,000	958	900	854	803	775
TOTAL SERVICES	187,785	188,405	189,966	191,690	192,931	193,615	194,843	195,786	196,505	197,147

DOT- Reported Pipe Inventories

Note: Cathodically protected steel services decreased by 129 services. This is due to assigning materials to the longest segment in a service. Some services had a small amount of plastic cut in that changed the material of the service. 15 Ductile iron services in R.I. are counted as "Other" services

2019 System Integrity Report RI

Enterprise Gas Distribution Systems
Trend-Based Integrity Analysis
05-01-2020

nationalgrid



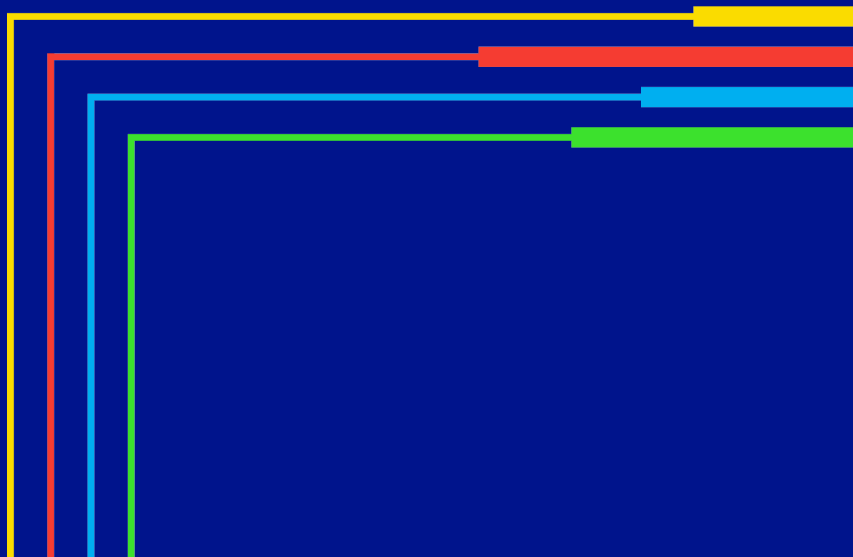
Gas Distribution Engineering

Region	Name	Title	Phone
	Saadat Khan	Director	1 (631) 710-3510
	Leomary Bader	Manager	1 (781) 907-2785
RI	Madeline Blaisdell	Associate Engineer	1 (781) 907-4164

01

Overall Assessment Summary

nationalgrid



Distribution Integrity By Region

Assessment Summary

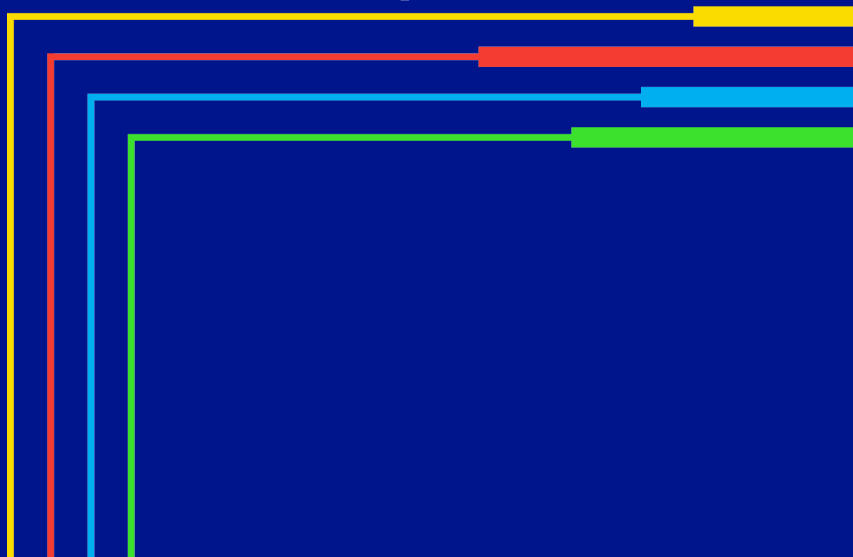
- Distribution Engineering has reviewed all of the findings in the annual Trend-Based Distribution System Integrity Analysis (System Integrity Report) in accordance with our Distribution Integrity Management Plan (DIMP), and finds that leak receipts have experienced only slight increases in the amount of leak receipts despite an elevated number of Heating Degree Days which is a testament to the effectiveness of the accelerated LPP replacement program in identifying the correct LLP for replacement. There are no immediate causes for concern that would warrant changes to DIMP. Any anomalies found were either explained as non-systemic or set up for continued research and/or monitoring. These will be explained in notes to this report. CI main break rates have decrease in Cast Iron Inventories across the company.
- Below is a summary of the individual key integrity measure results for the eight (8) federal (PHMSA) filing entities that constitute National Grid-US.

Percent Change 2018 To 2019	RI
Leak Receipts	5.9%
Workable Leak Backlog	-3.0%
LPP Main Inventory	-4.4%
LPP Service Inventory	5.1%
Overall Main Leak Rate	5.6%
Cast Iron Main Break Rate	-25.9%
Steel Main Corrosion Leak Rate	2.0%
Service Leak Rate	2.1%

02

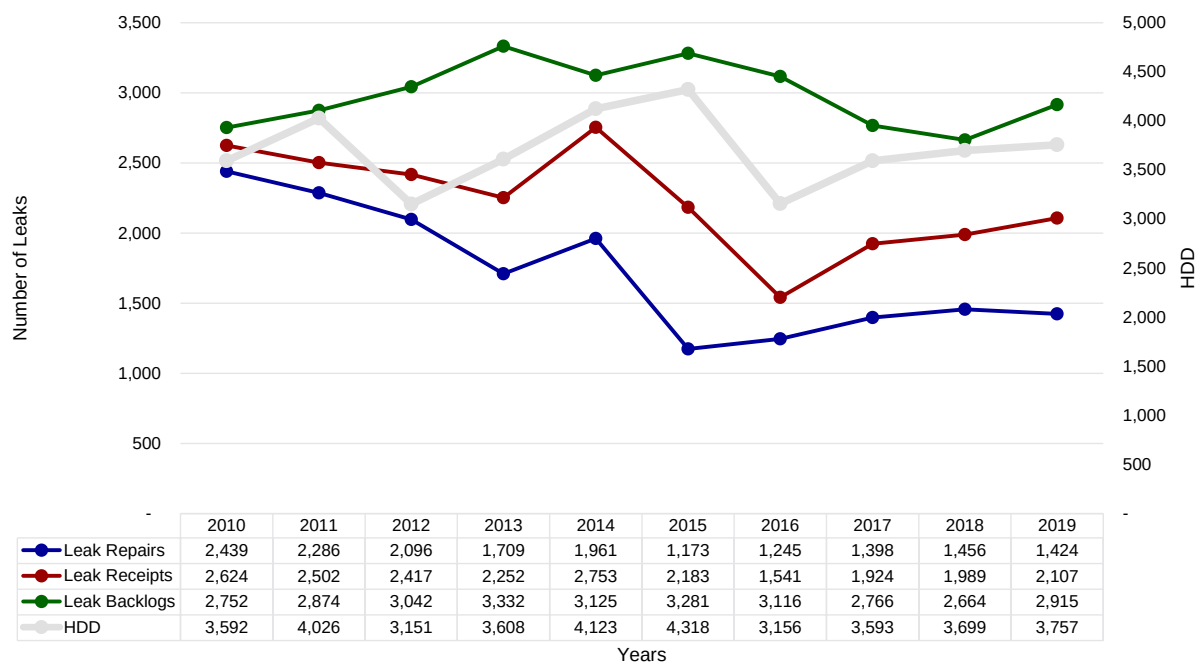
Leak Receipts, Repairs and Backlog By HDD Trend (Mains & Services)

nationalgrid



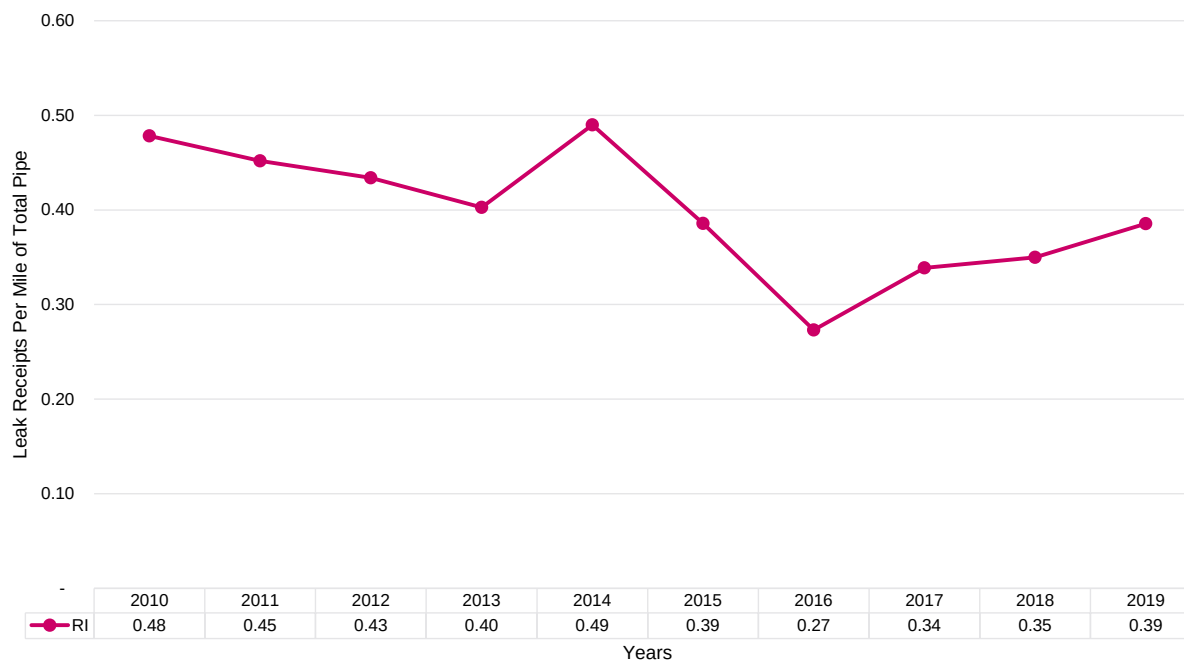
Total Leak Receipts, Repairs & Backlog

RI



Leak Receipt Rate By Region

RI



$$\text{Leak Receipt Rate} = \frac{\text{Leak Receipts (Excluding Damages)}}{\text{Total Miles of Pipe (Miles of Main + Miles of Services)}}$$

Overall Regional Distribution Integrity Assessment Summary

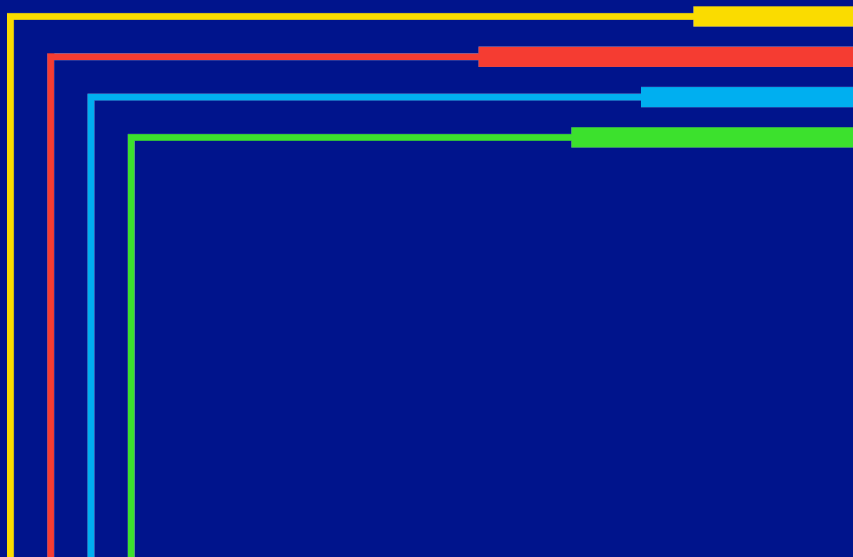
Rhode Island (RI)

- Leak receipts increased.
- Workable leak backlog decreased.
- Leak prone main and service inventories continue to decline steadily.
- Overall main leak rate increased. Steel main corrosion rate increased and Cast Iron main break rate decreased.
- Service leak rate increased.

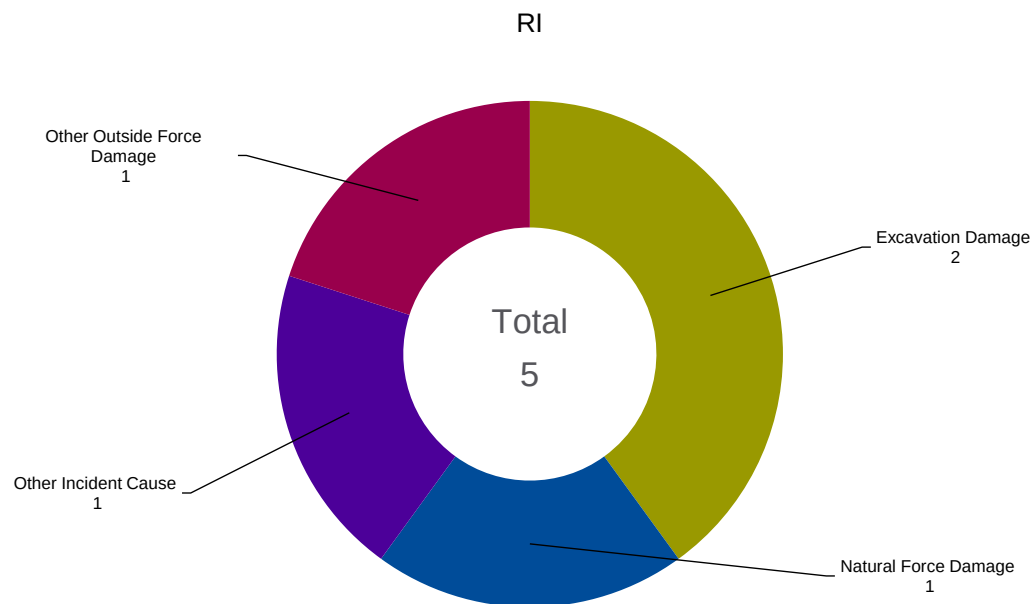
03

PHMSA Reported Incidents

nationalgrid



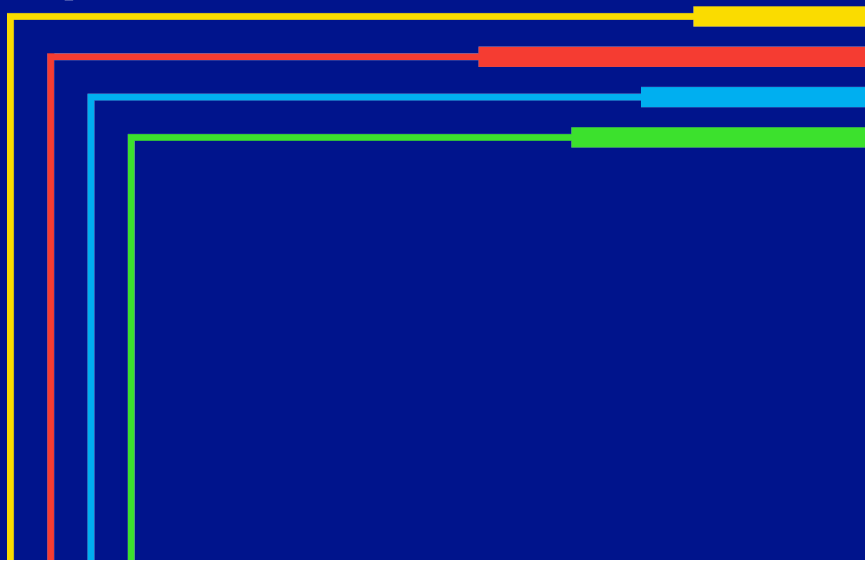
PHMSA Reported Incidents (Previous 10 years)



04

Leaks Management Analysis (Mains & Services)

nationalgrid

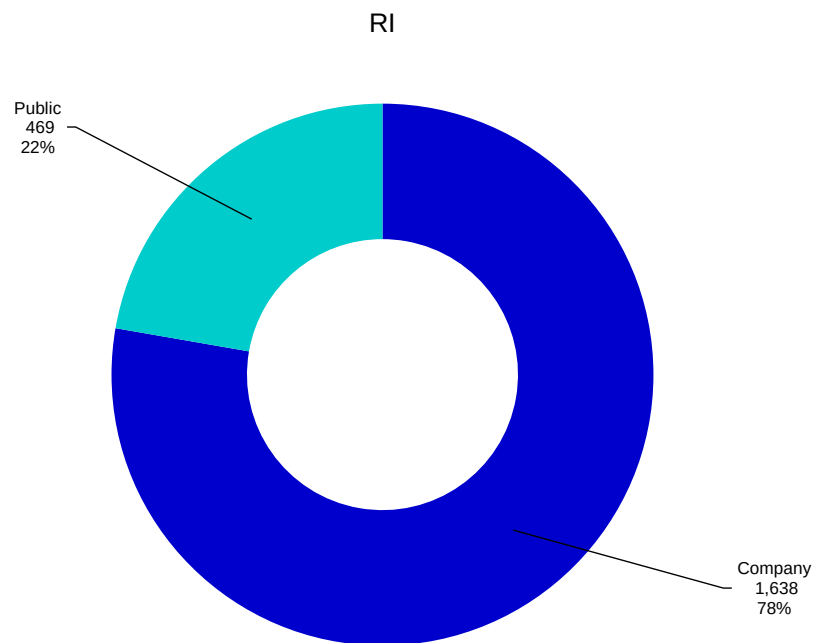


Leak Receipts As A Function Of Total System Pipe Mileage

RI

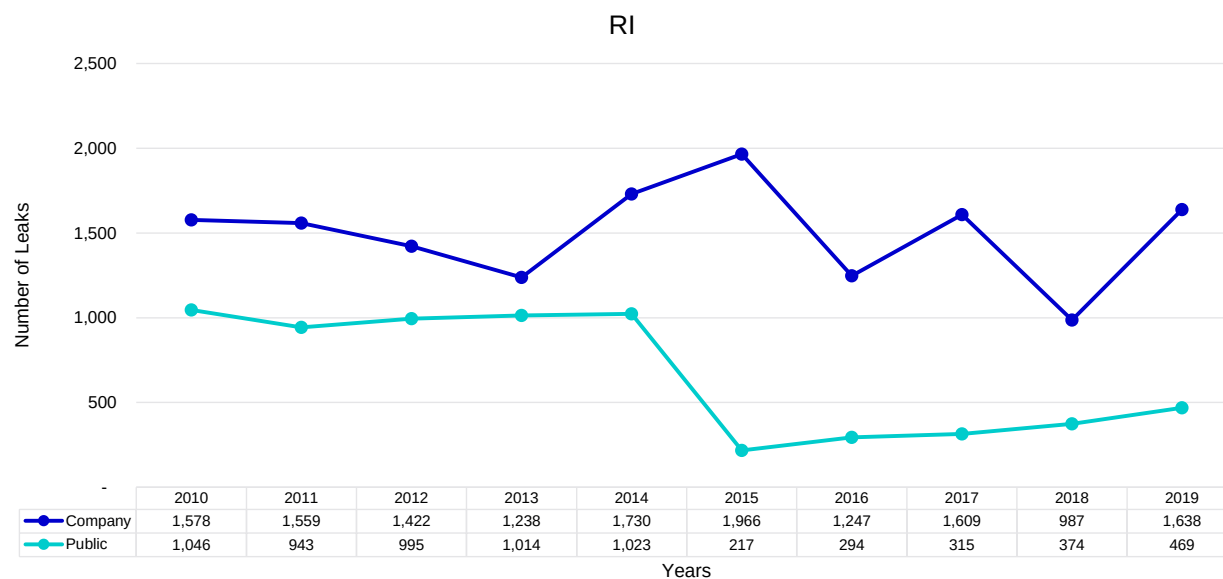
Leak Receipts By Discovery Source

RI



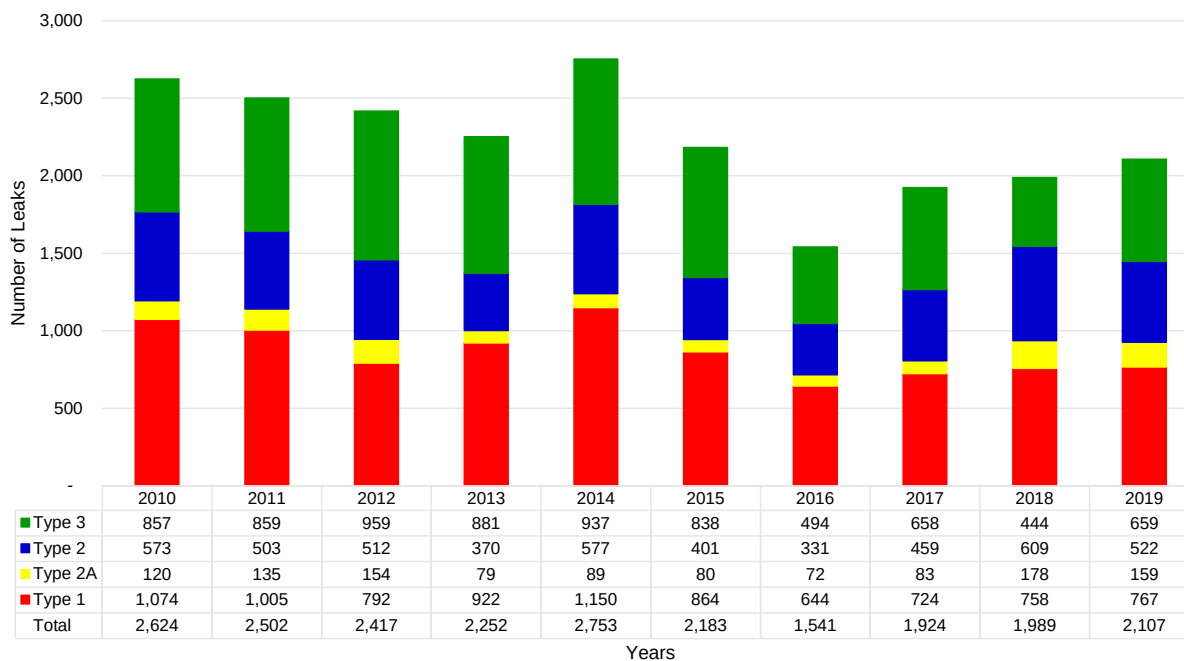
Leak Receipts By Discovery Source

RI



Leak Receipts By Type

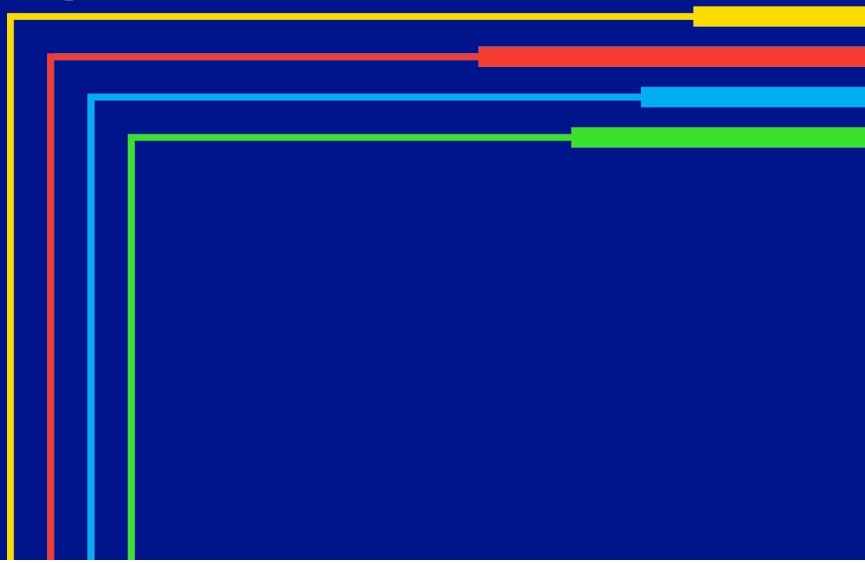
RI



05

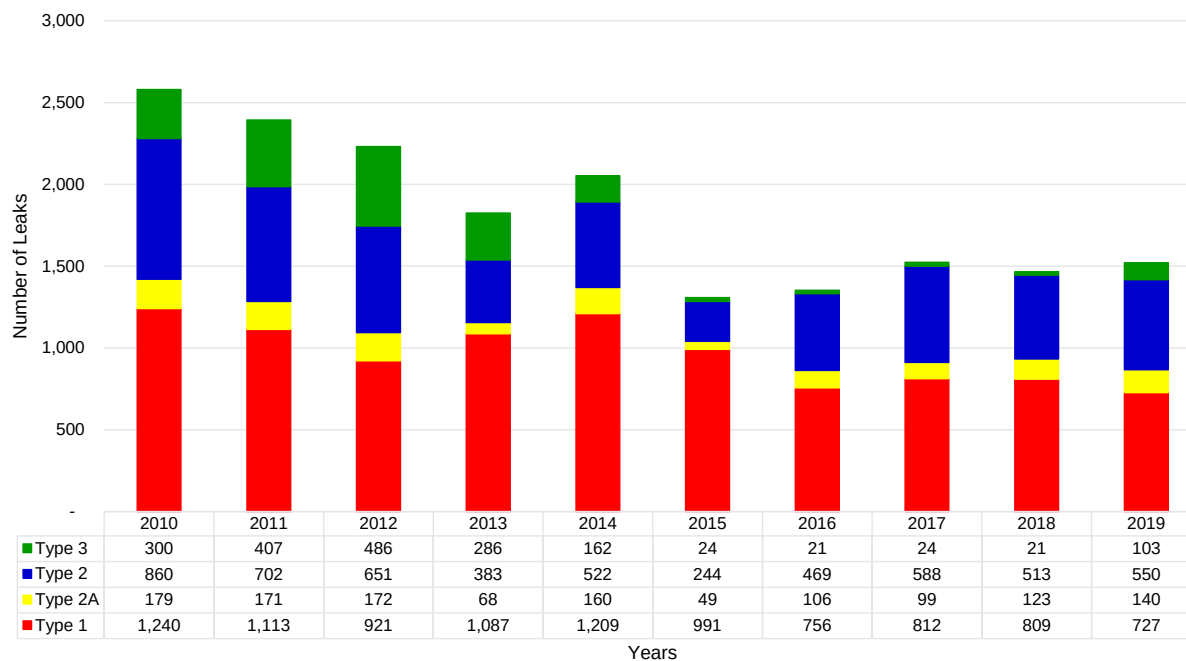
Leaks Repaired Analysis (Mains & Services)

nationalgrid



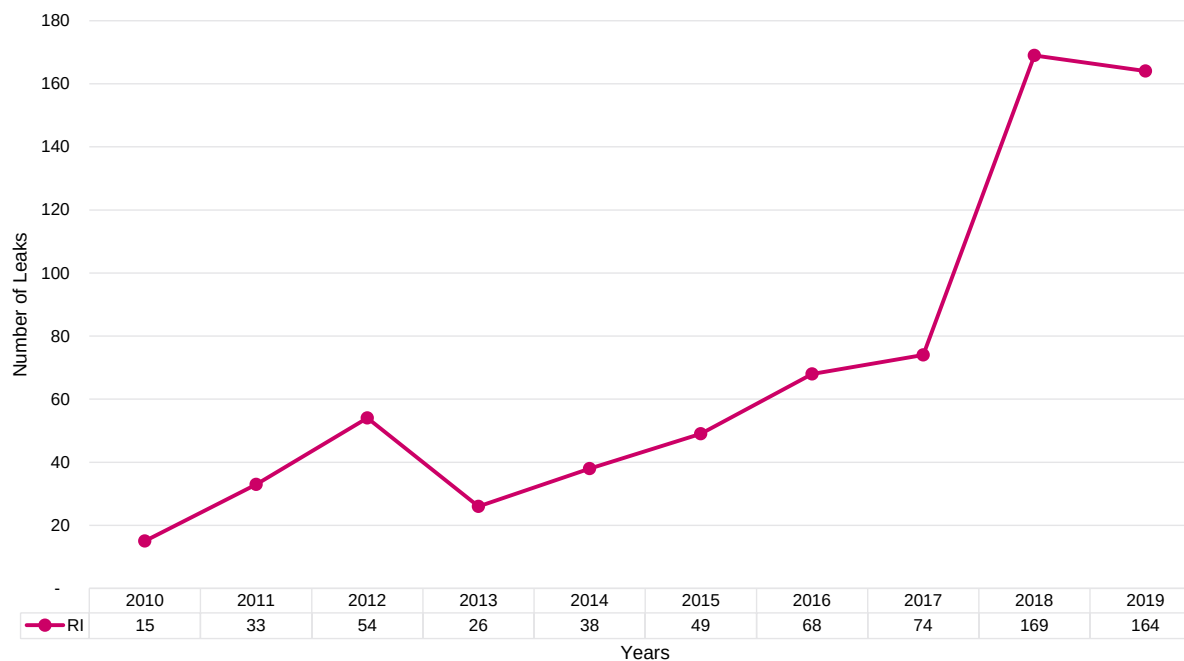
Leaks Repaired By Type

RI



Workable Leak Backlog By Region

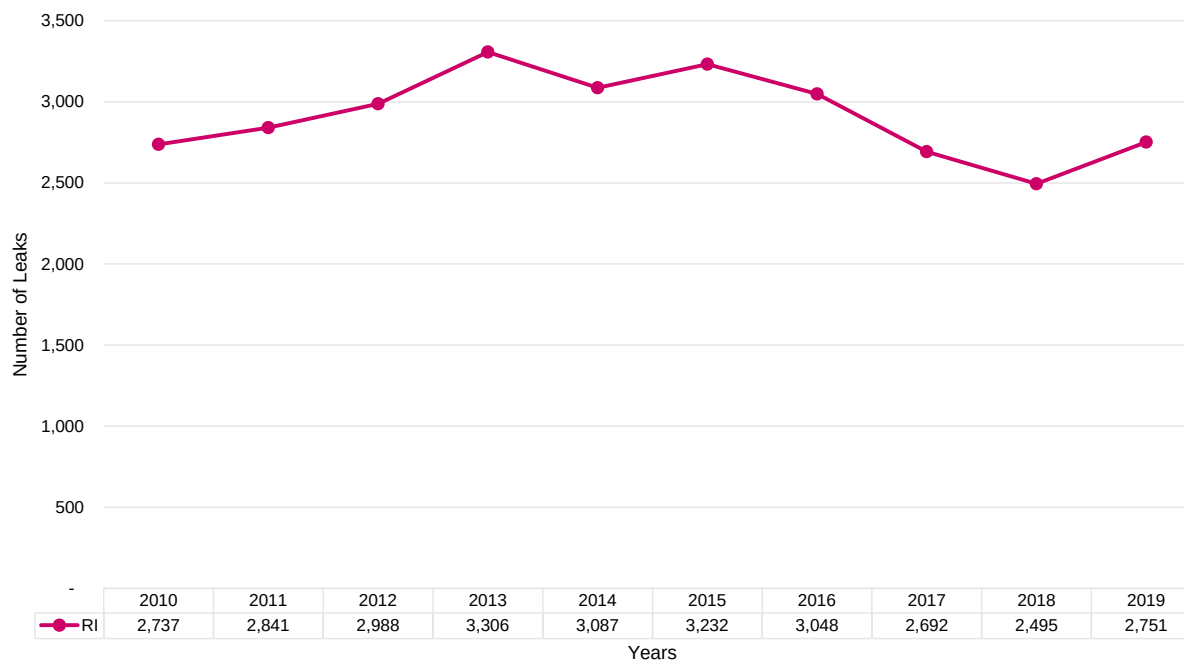
RI



- Note: 2018 experienced an increase in the backlog due to implementation of the Work Continuation Plan.

Open Type 3 Leak Backlog By Region

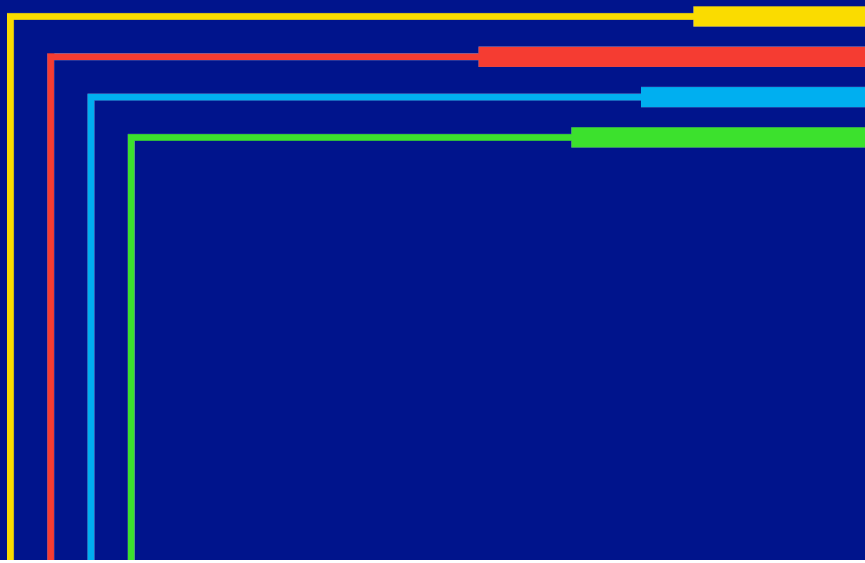
RI



06

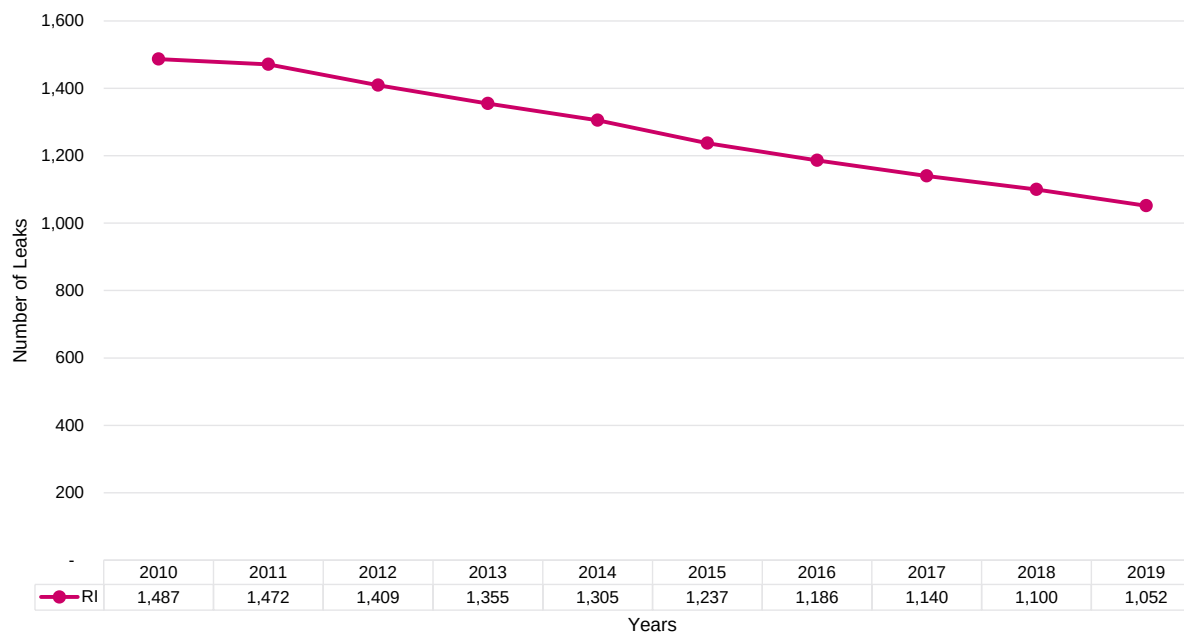
Main Inventory Analysis

nationalgrid



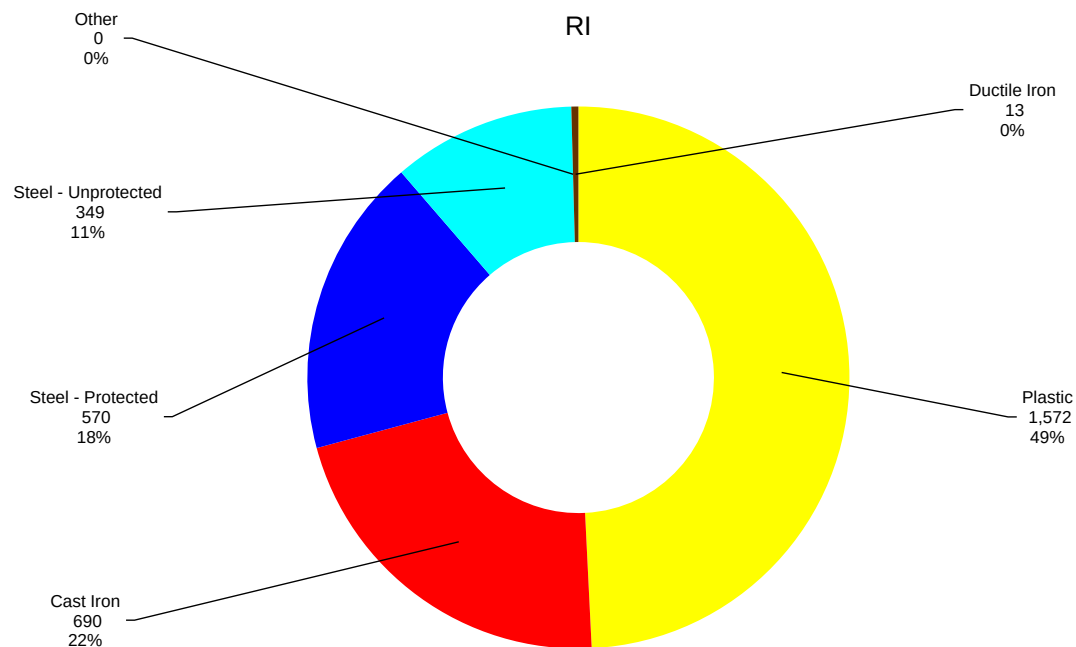
Main Inventory LPP Trend By Region

RI



Main Inventory

RI



Main Replacement

Rate Case Supported "Leak-Prone" Main Replacement Levels										
Region	2019 Total Main (Miles)	2019 Leak Prone Main (Miles)	Leaks/Miles of Total Main (Repair rate)	Leaks/Miles of Leak Prone Main (Repair rate)	⁽⁵⁾ 2019 Annual "Planned" Replacement (Miles)	Planned Replacement % of Leak prone system	⁽⁵⁾ 2019 Annual "Actual" Replacement (Miles)	Actual Replacement % of Leak prone system	⁽⁵⁾ 2020 Annual "Planned" Replacement (Miles)	Years to LPP Main Elimination based on "Current" annual plan
RI	3,3195	1,052	0.03	0.91	55	5.2%	51.9	4.9%	52	15

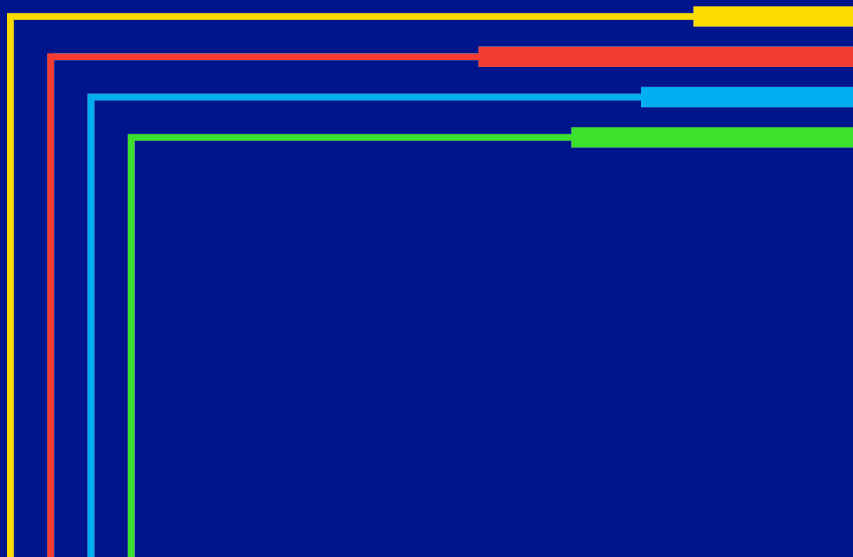
Notes:

1. Leaks per mile of total main excludes Excavation leaks.
2. Leaks per mile of Leak-Prone main (LPP) excludes Excavation leaks and Plastic leaks.
3. Leak-Prone Pipe = Unprotected steel (Bare & Coated) + CI/WI + Aldyl-A (MD, 1985 and prior) + Other.
4. Miles of Leak-Prone main replaced includes all Proactive programs (Main Replacement program & System Reinforcement) and all Reactive programs (Public Works, Water Intrusion & Leak/reactive).
5. Annual planned and actual replacement miles are CY.
6. Data sources are 2016, 2017, 2018 US Gas Leak Prone Pipe Replacement Programs monthly reports from Gas Resource Management CMS.

07

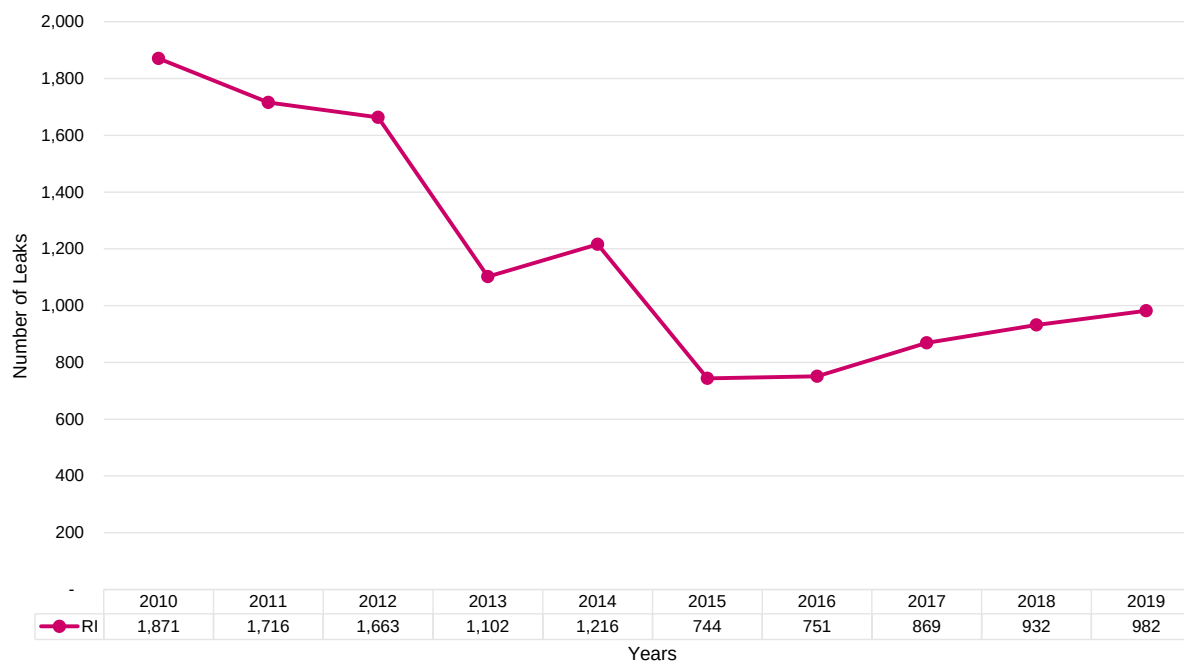
Main Leaks Repaired Analysis

nationalgrid



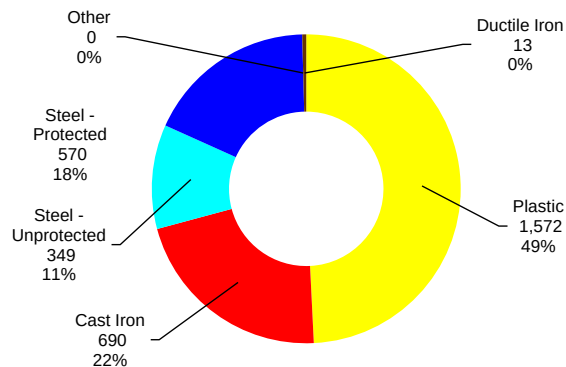
Main Leak Repairs By Region

RI

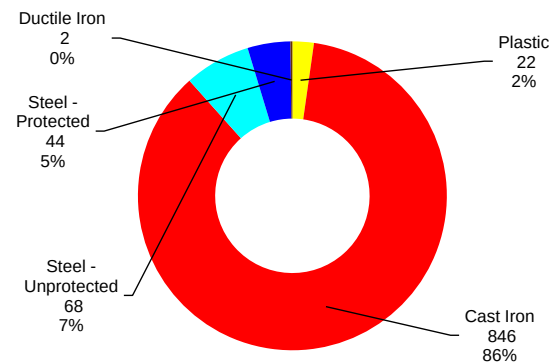


Main Inventory Compared To Main Leak Repairs By Material

Main Inventory

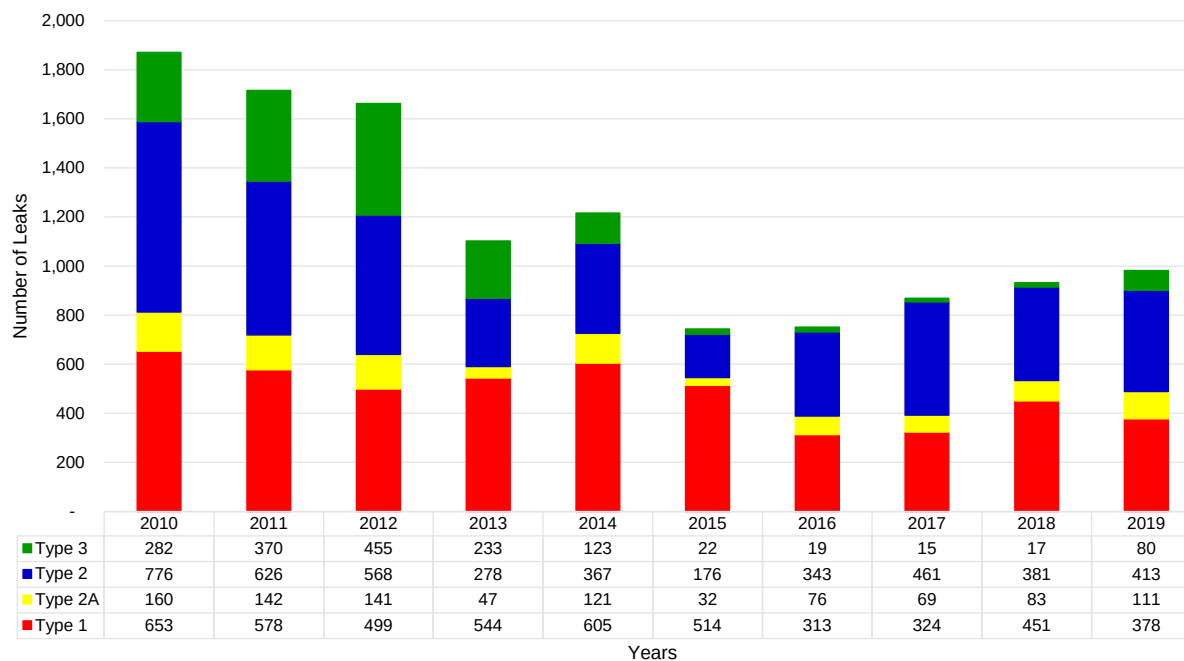


Main Leak Repairs



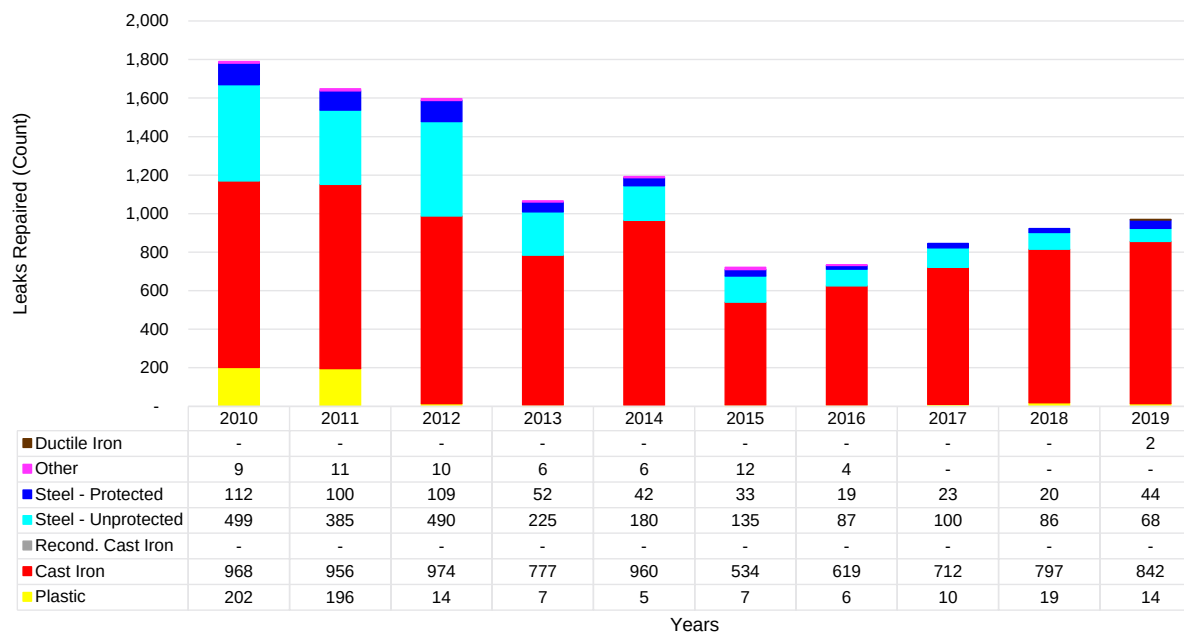
Main Leaks Repaired By Type

RI

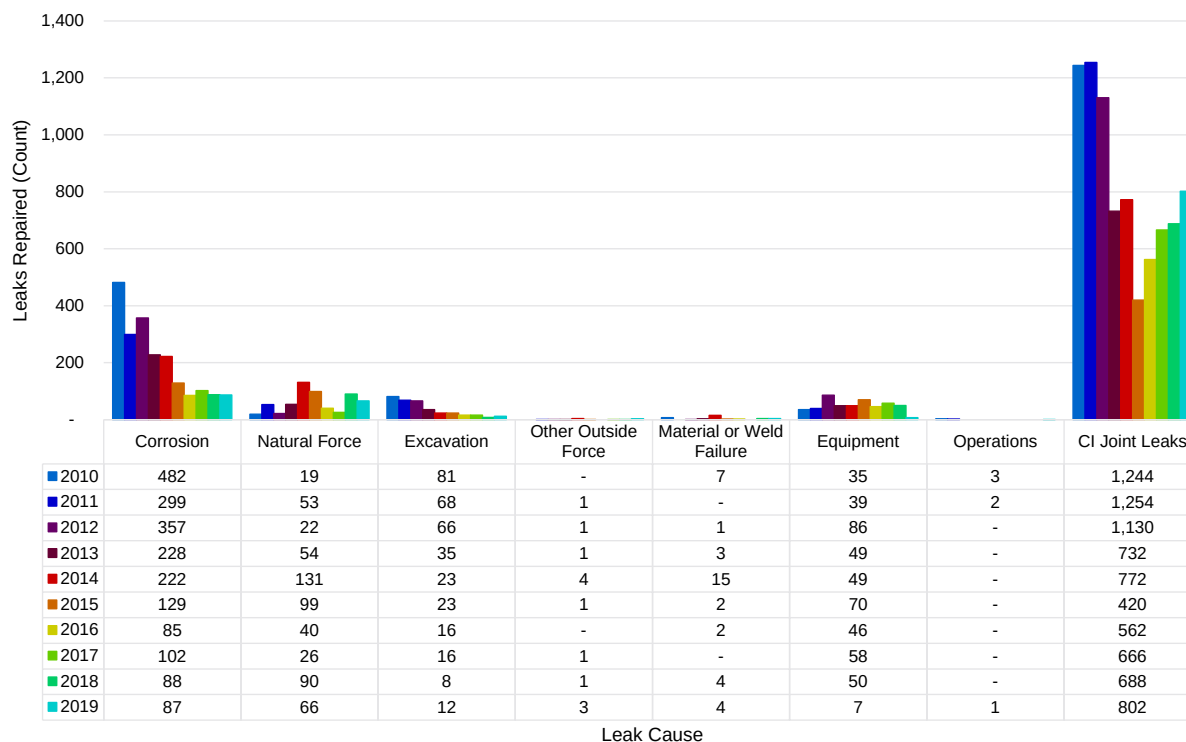


Main Leaks Repaired By Material

RI

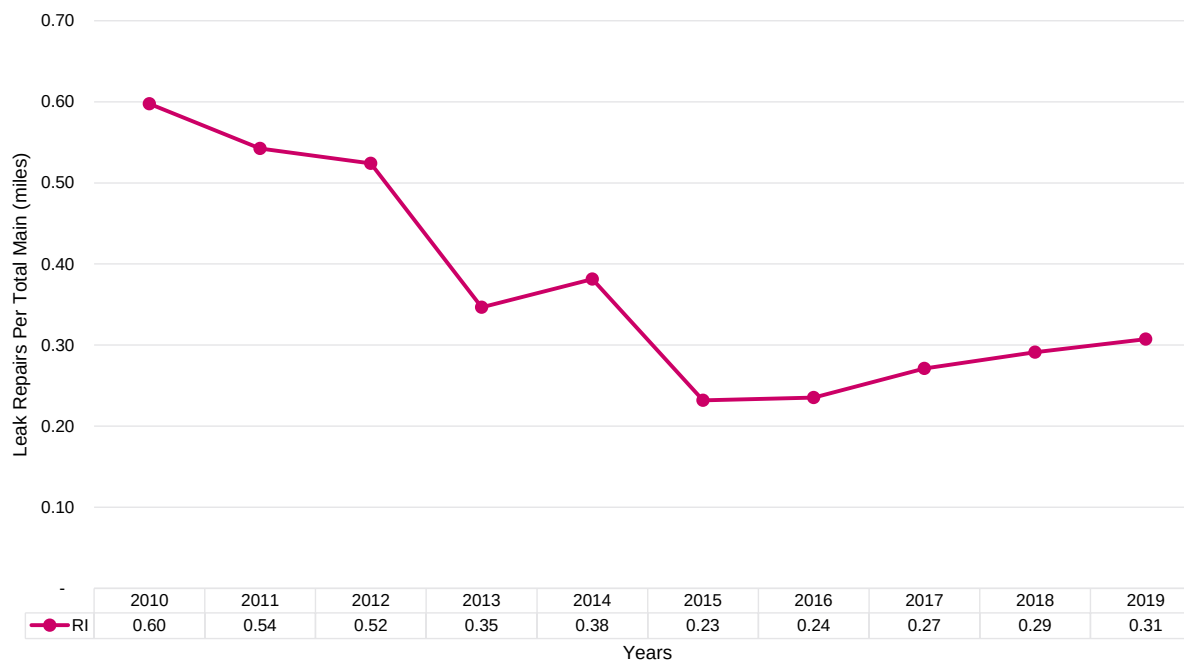


Main Leaks Repaired By Leak Cause

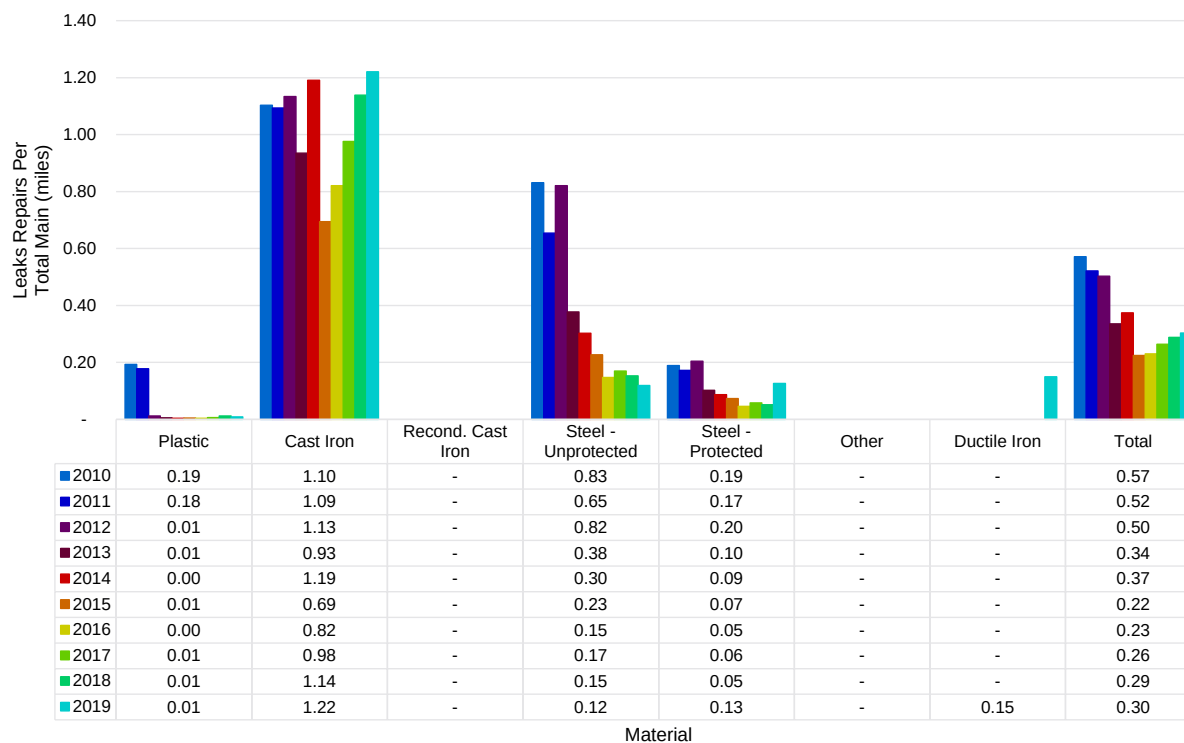


Main Leak Rate By Region

RI

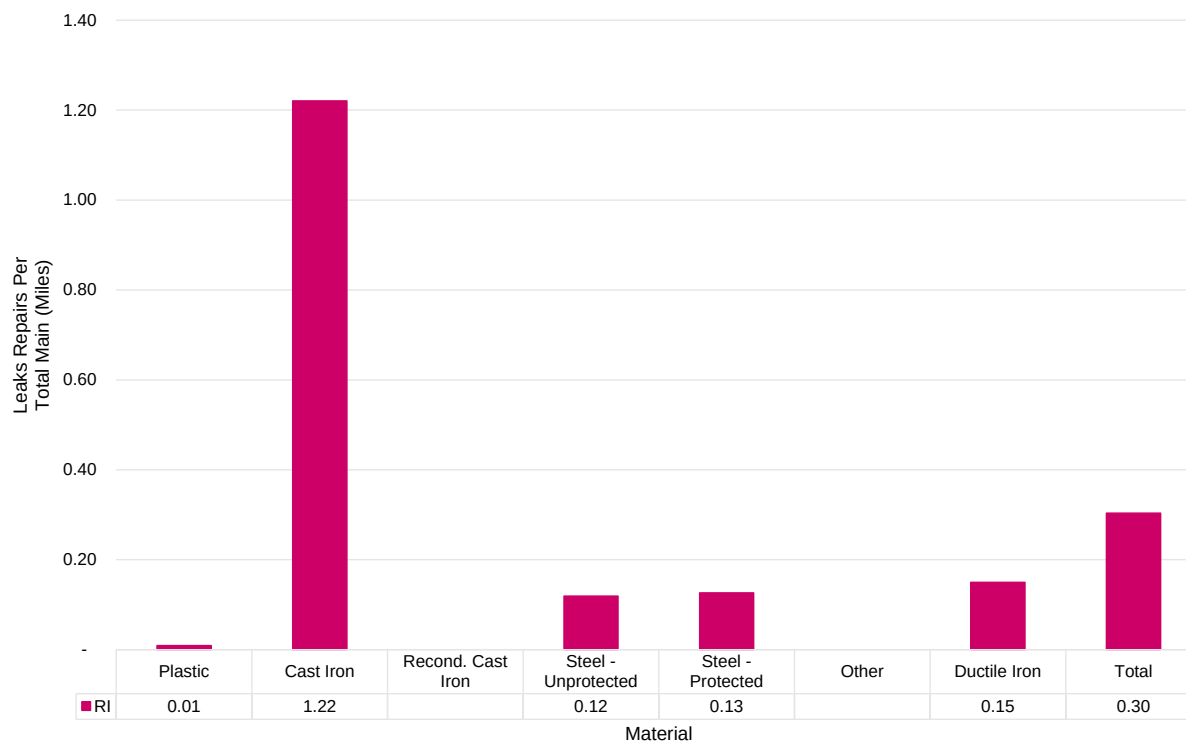


Main Leak Rates By Material (Excluding Damages)



Main Leak Rate By Region

NGRID



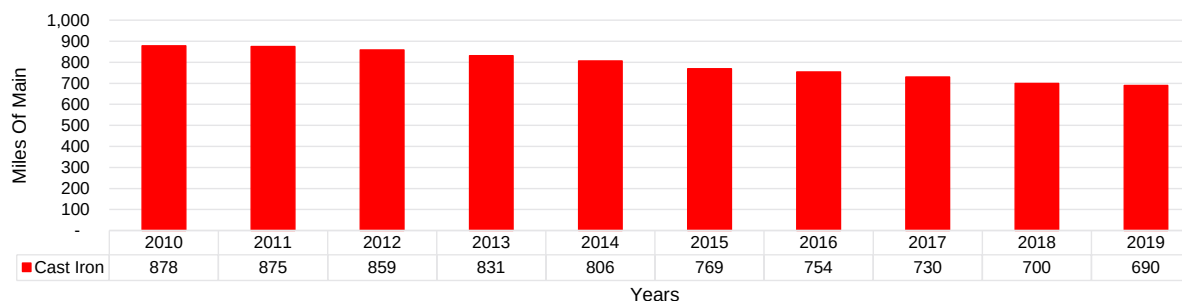
A Closer Look At Cast Iron Mains

nationalgrid

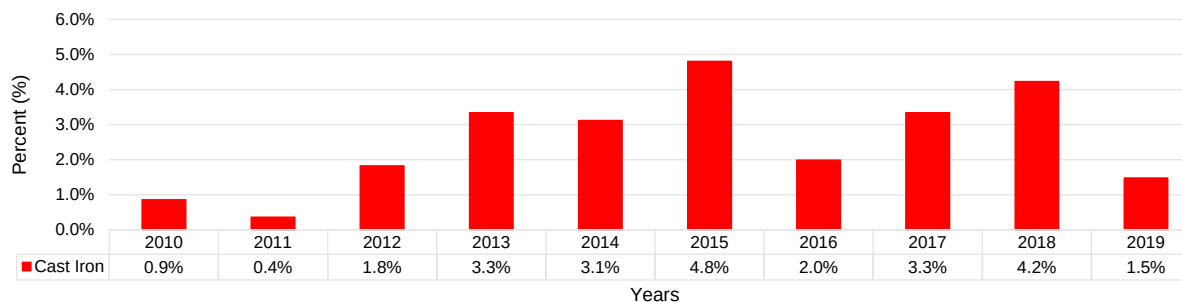


CI Main Inventory Compared to CI Attrition Rate

RI

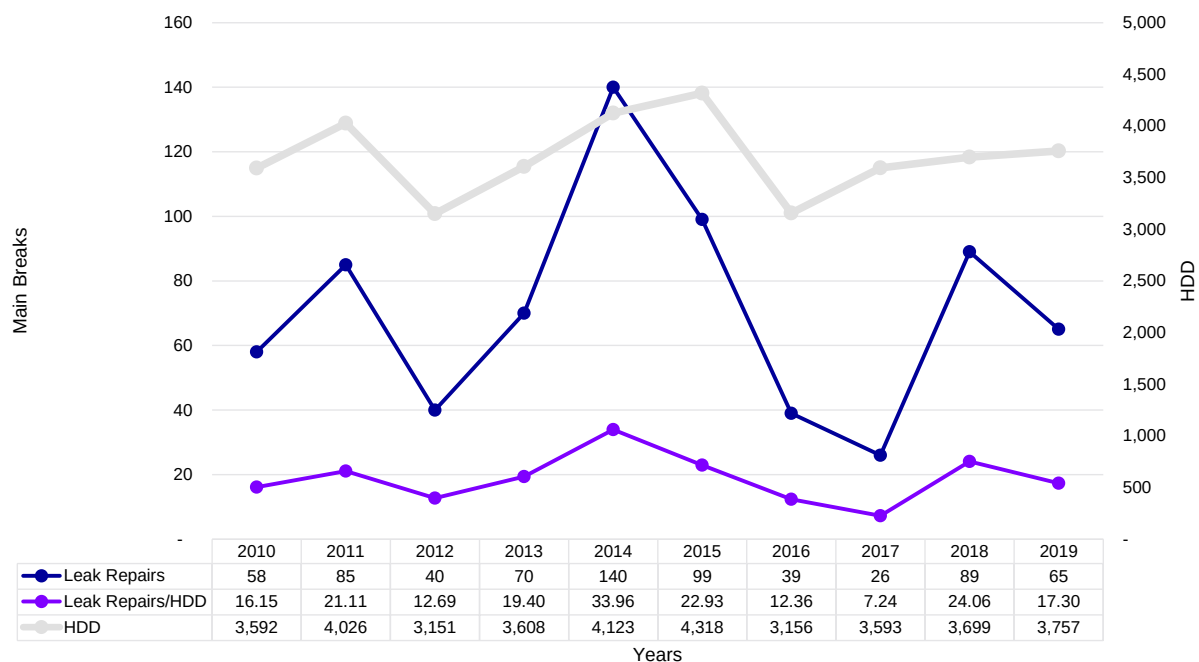


Cast Iron Reduction Percentage



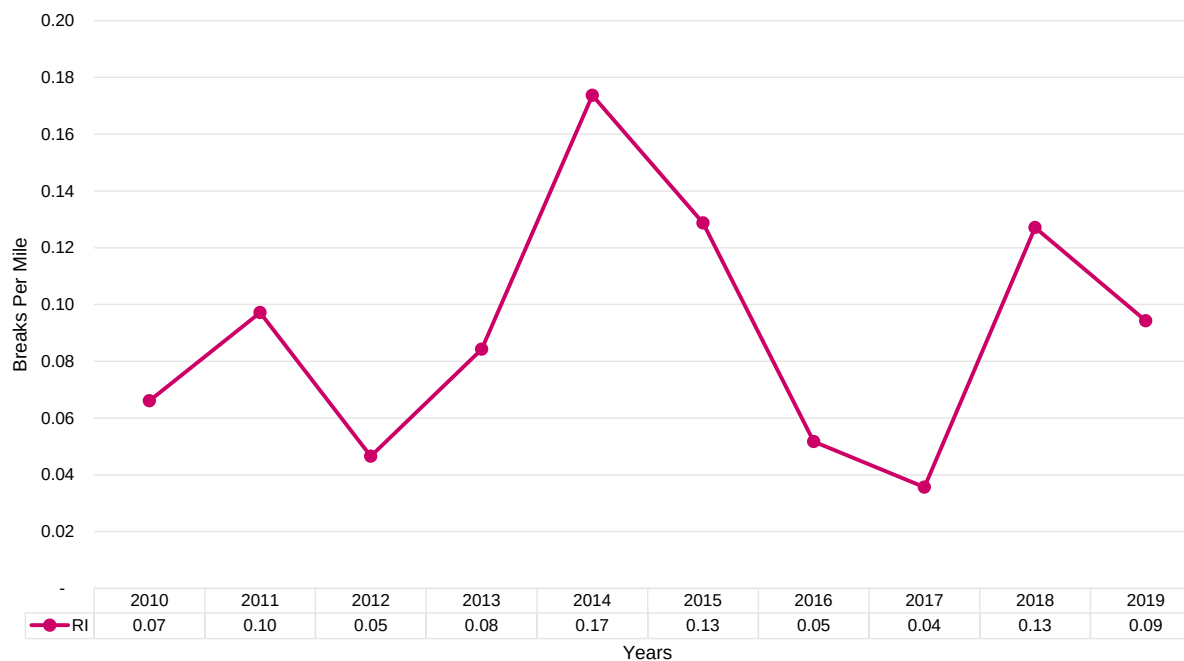
Note: 2019 Providence stopped issuing permits due to paving patch issues

CI Main Breaks Compared To HDD

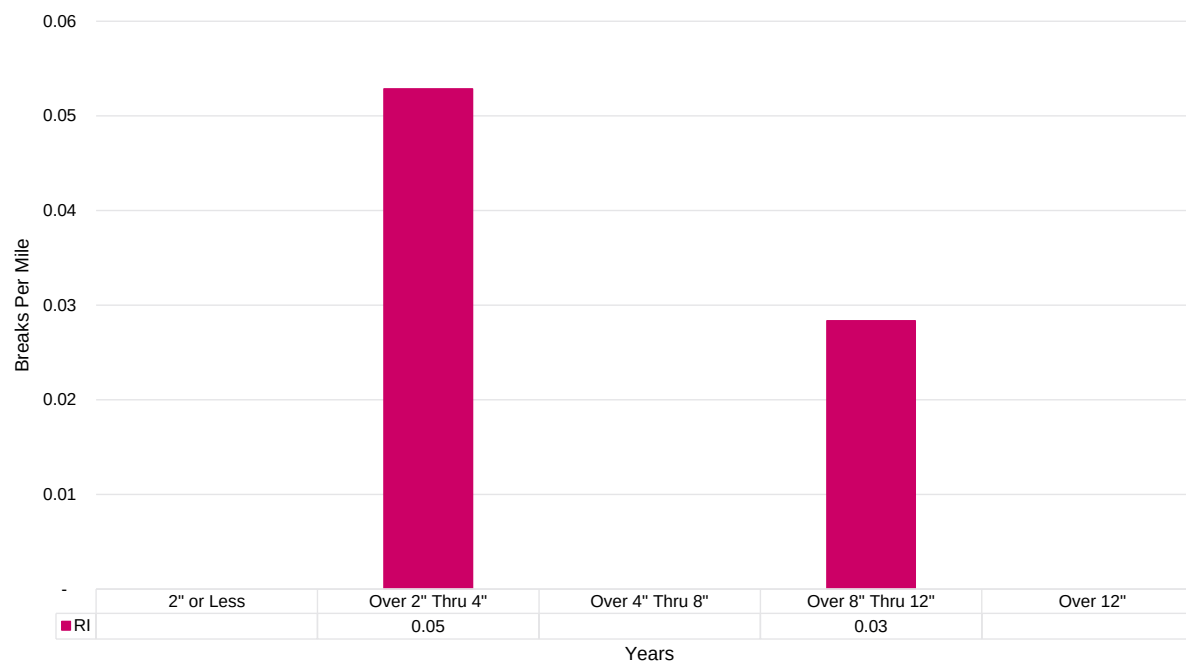


- Note: Repairs/HDD is Multiplied By 1,000

Cast Iron Main Breaks Rates By Region

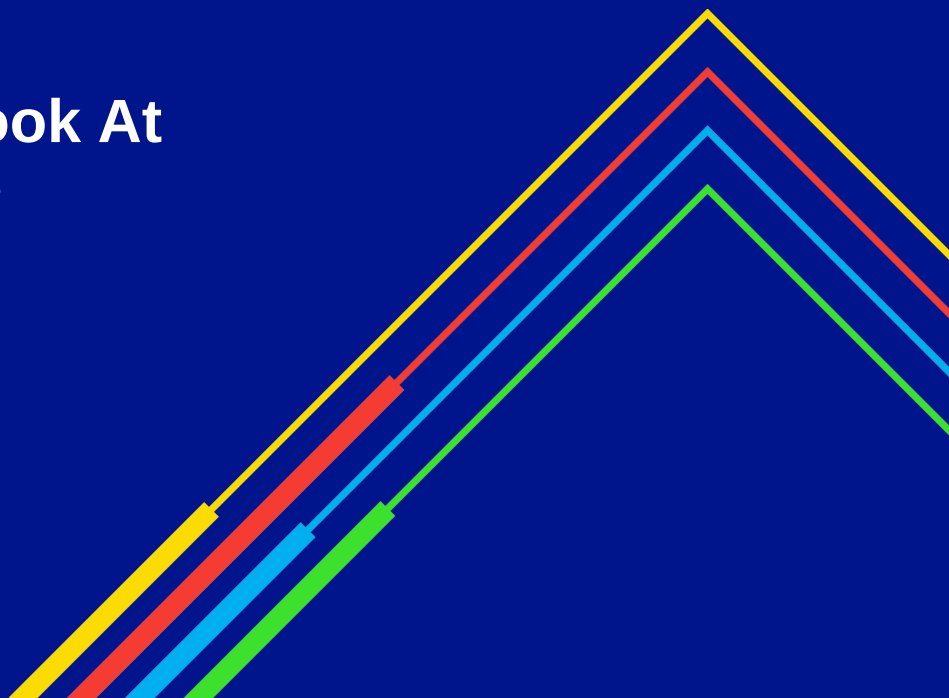


Cast Iron Main Break Rates By Region (Comparison By Diameter)



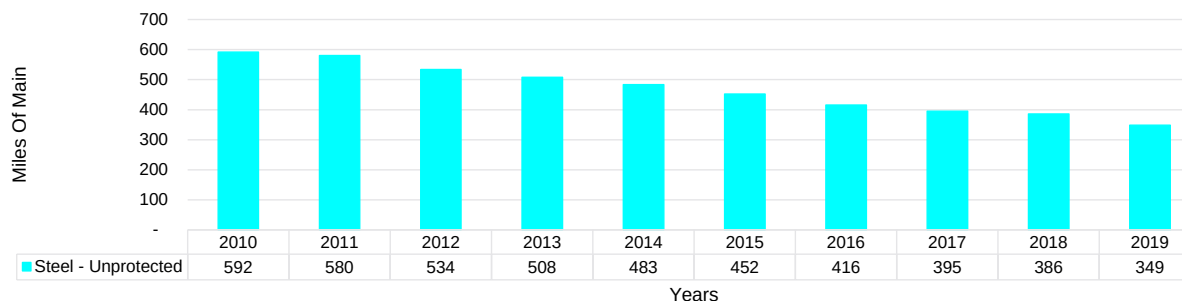
A Closer Look At Steel Mains

nationalgrid

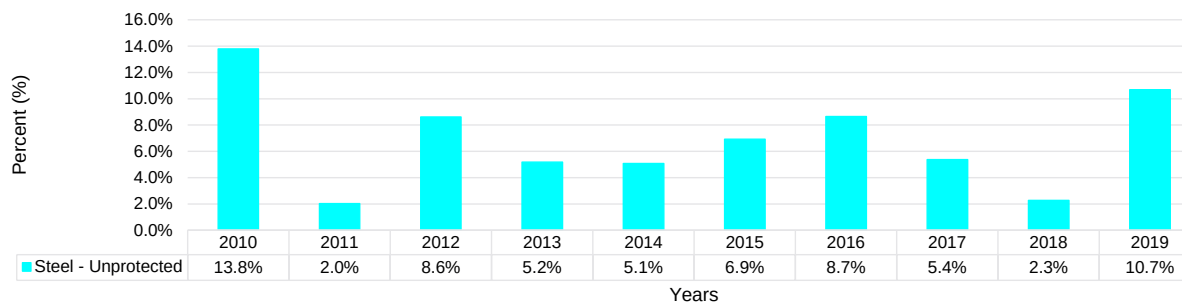


Unprotected Steel Main Inventory Compared to Steel Reduction Percentage

RI

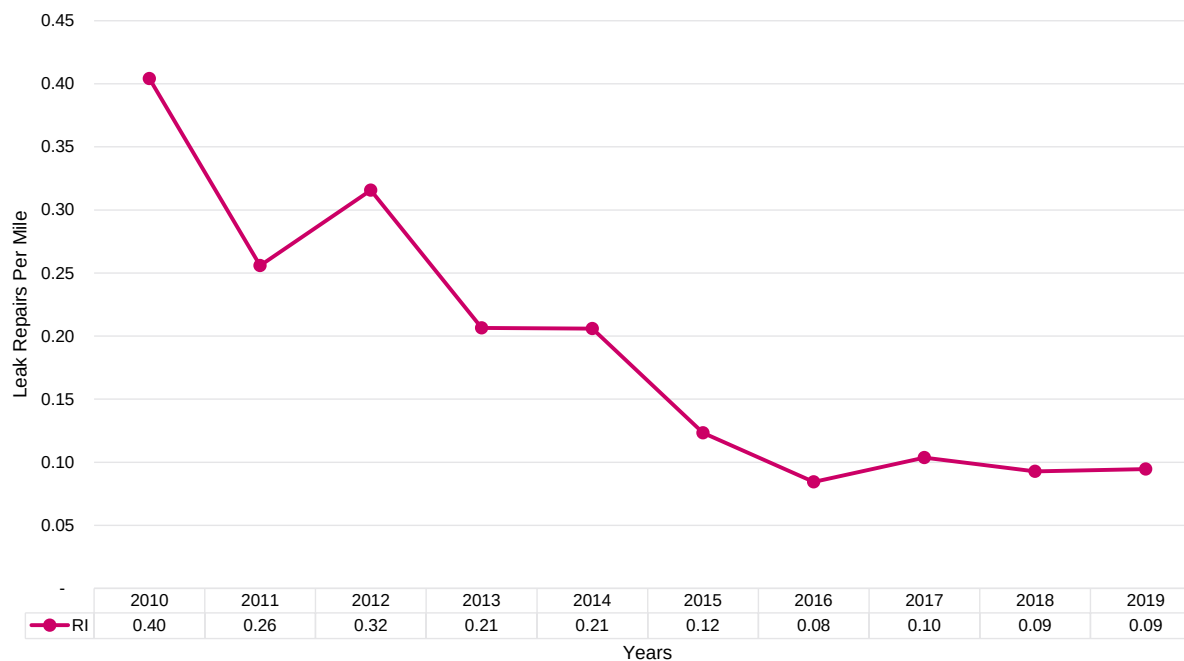


Unprotected Steel Reduction Percentage



Main Corrosion Leak Rates

(Corrosion Leak Repairs Per Mile of Total Steel)

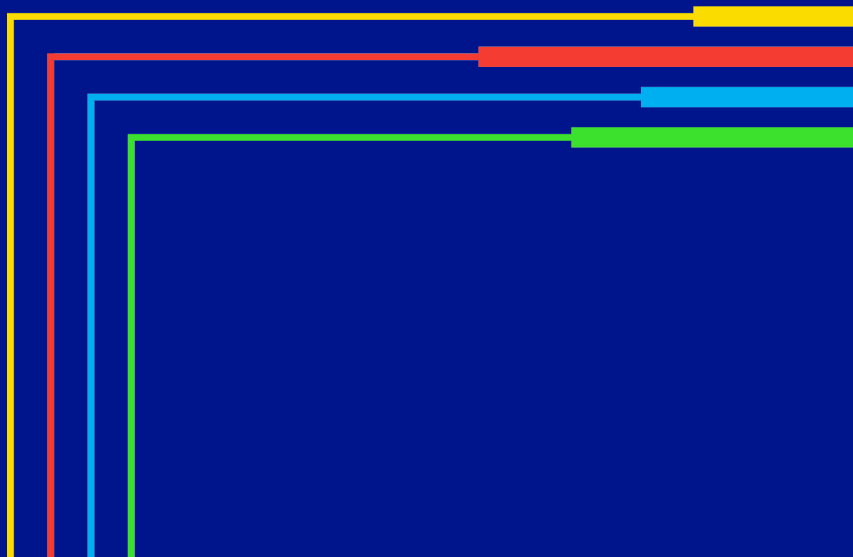


Note: Includes ALL corrosion leaks, regardless of main material

08

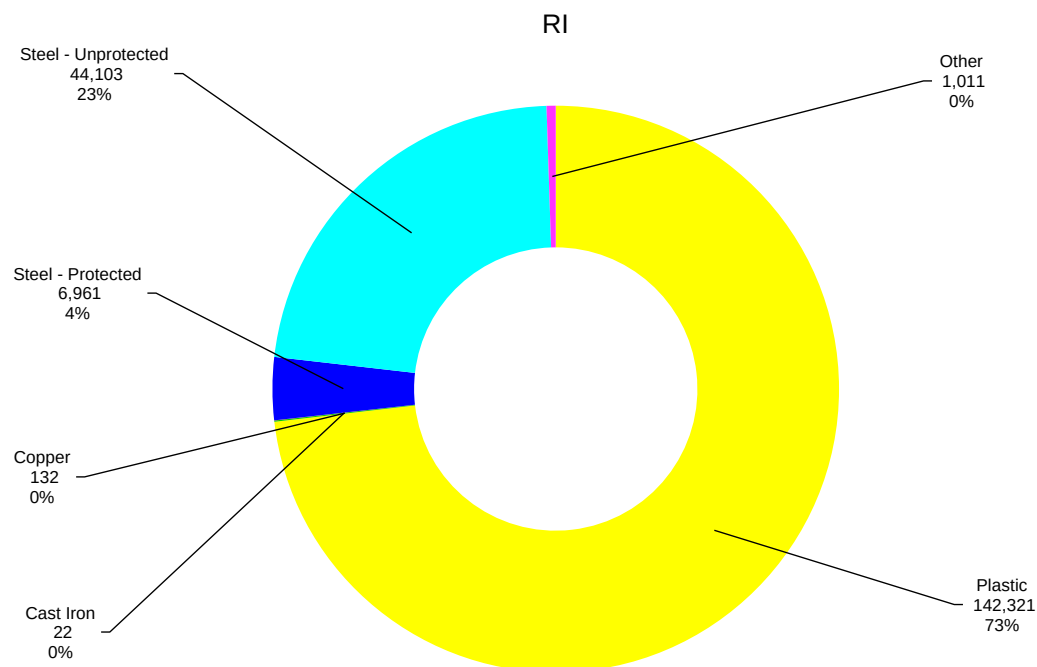
Service Inventory Analysis

nationalgrid



Service Inventory Analysis By Material

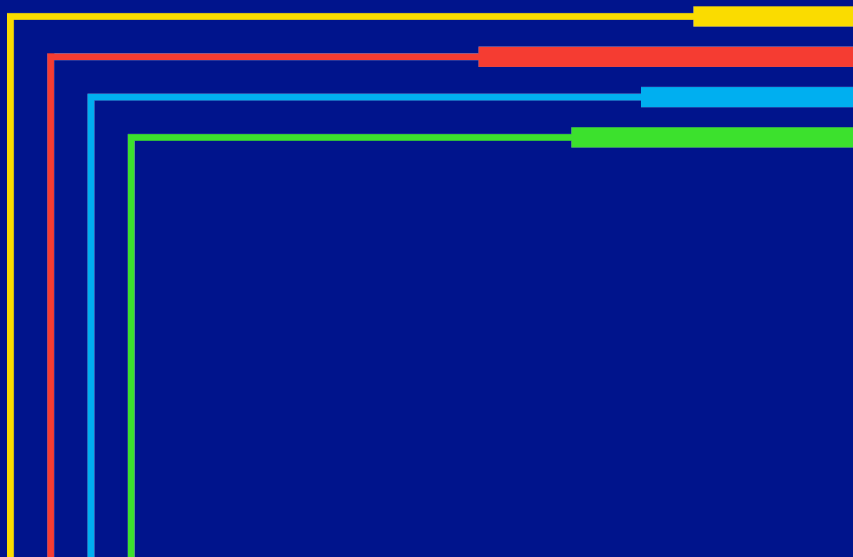
RI



09

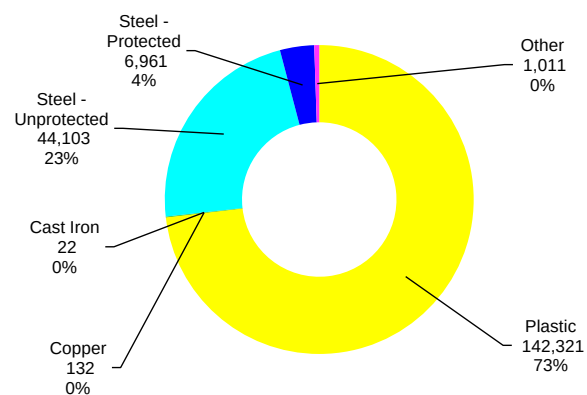
Service Leaks Repaired Analysis

nationalgrid

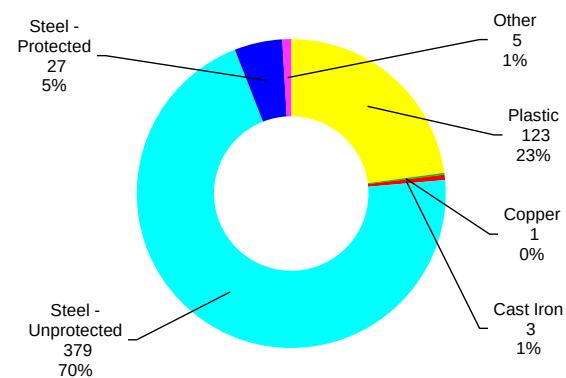


Service Inventory Compared To Service Leak Repairs By Material

Service Inventory

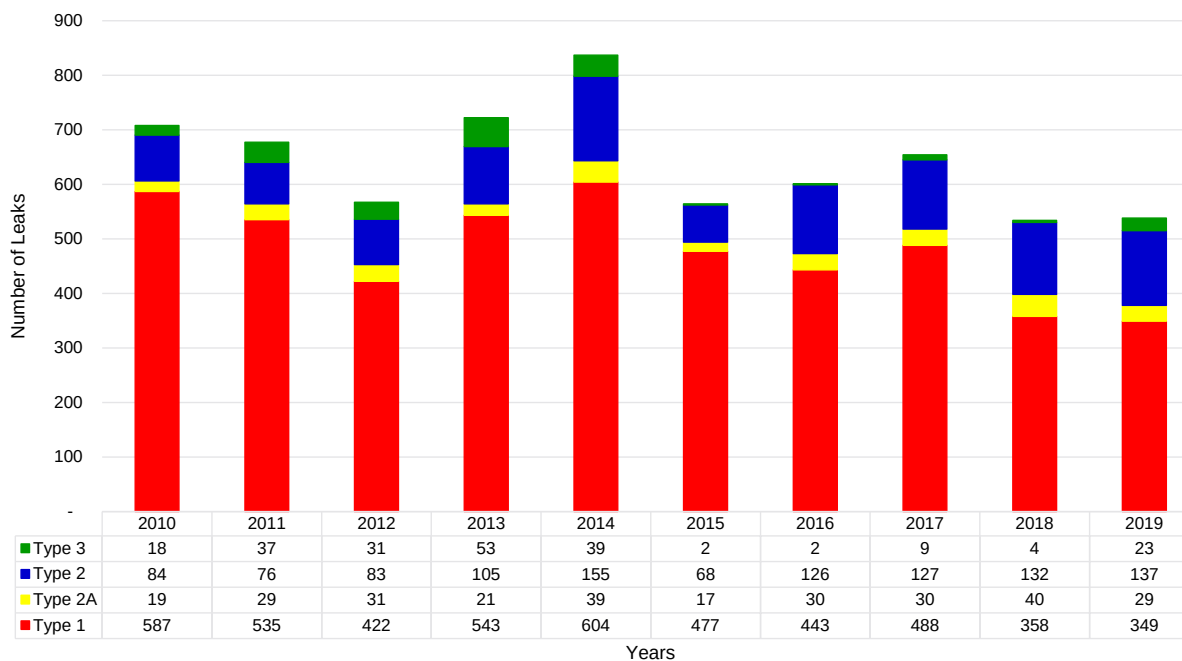


Service Leak Repairs



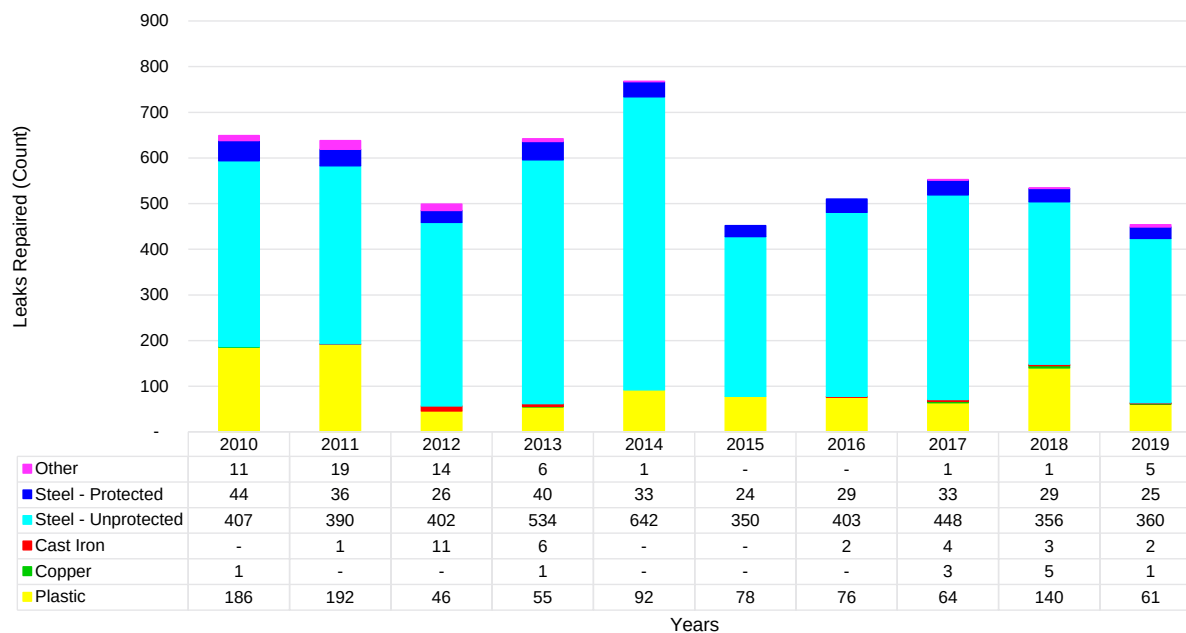
Service Leaks Repaired By Type

RI

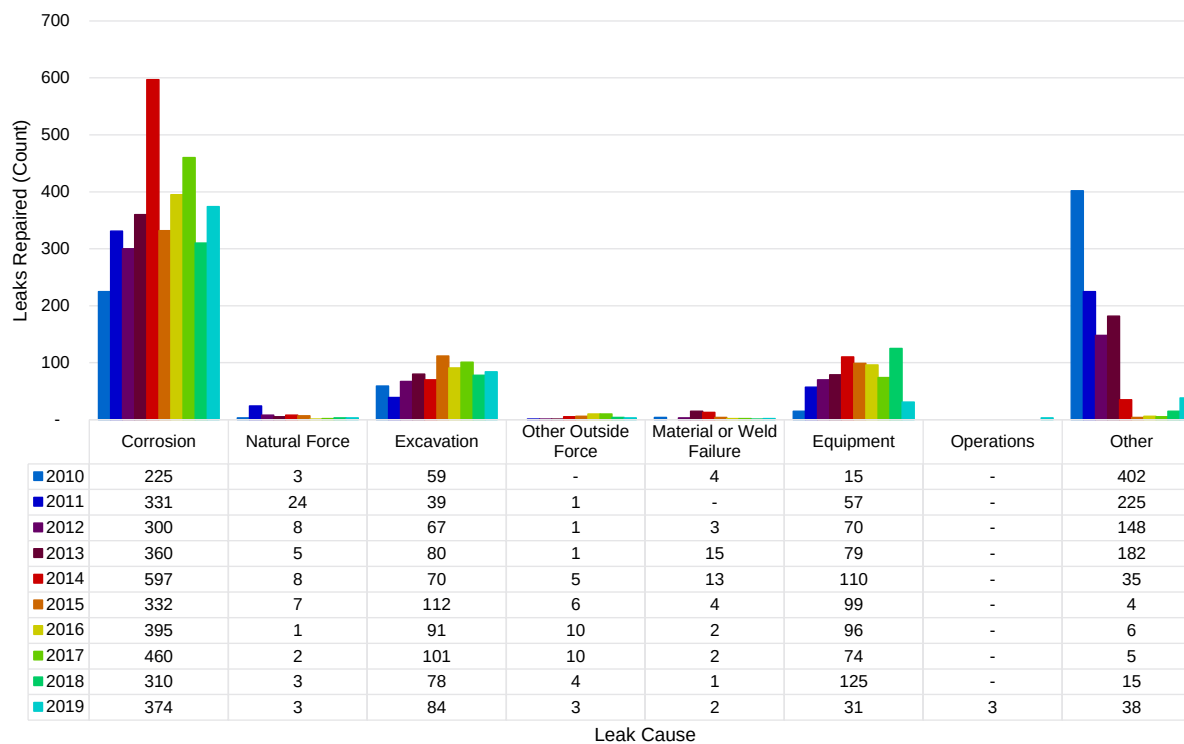


Service Leaks Repaired By Material

RI

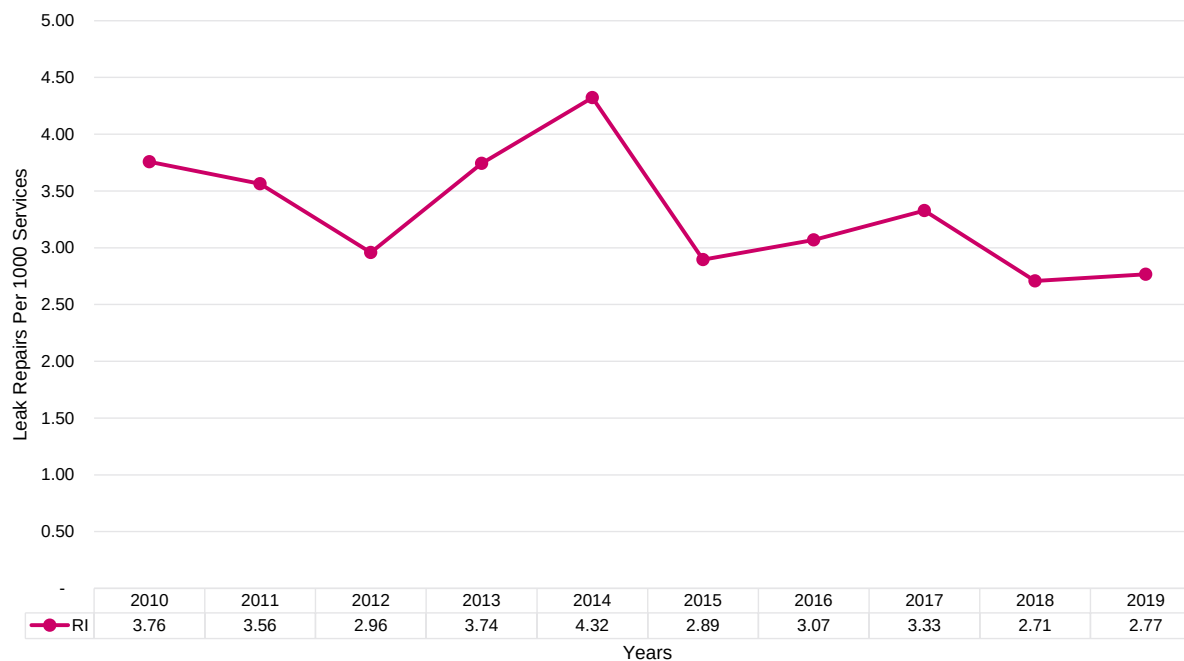


Service Leaks Repaired By Leak Cause



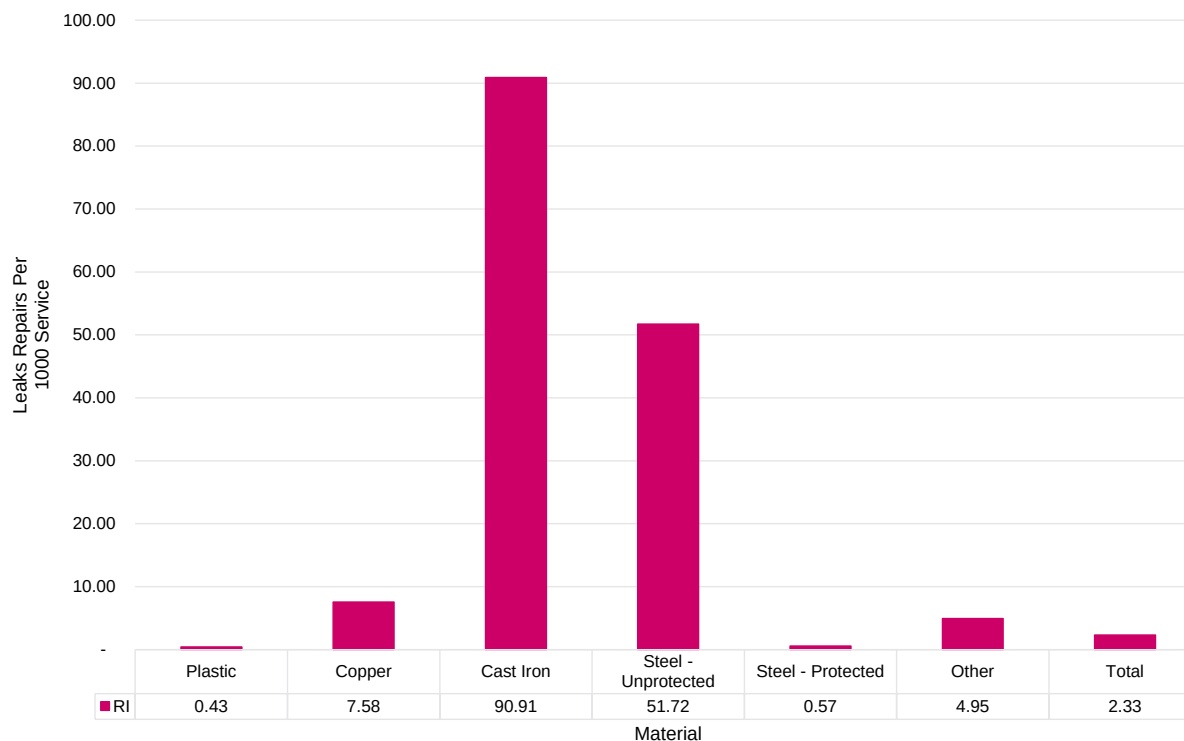
Service Leak Rate By Region

RI



Service Leak Rate By Region

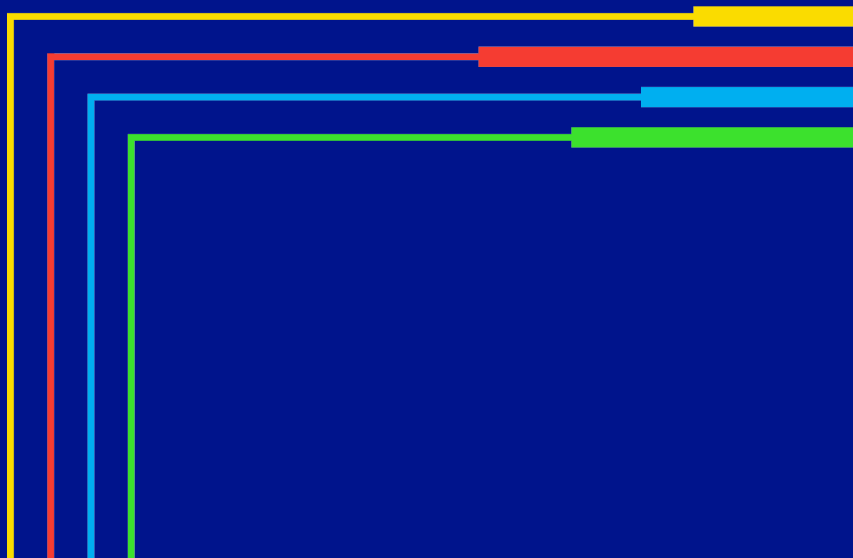
RI



10

Distribution DOT Report Data Comparison

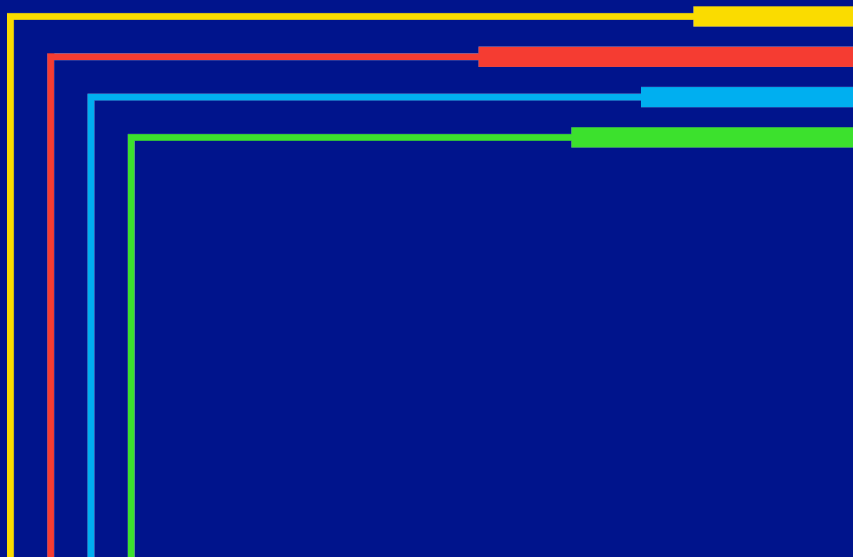
nationalgrid



11

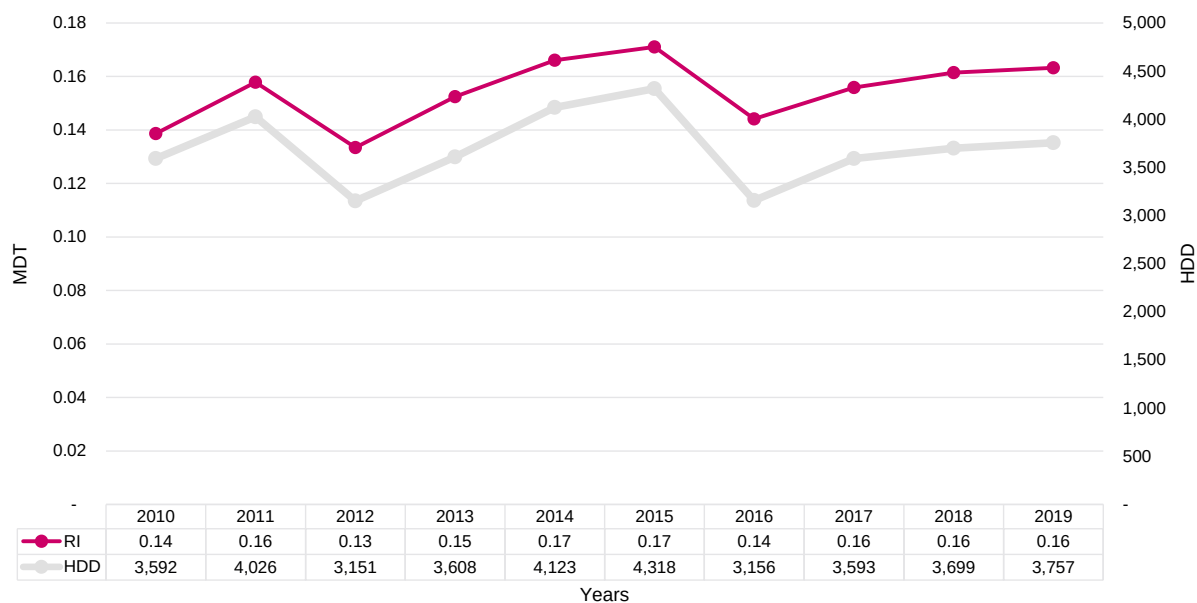
Gas Distribution System Statistics

nationalgrid



Average Customer Used Rate

RI



Notes:

- Customer Used = Sendout (MDT) / Total Customer
- Total Customer includes Residential and Commercial
- HDD: Heating Degree Days
- MDT: Million Dekatherm

Gas Distribution System Statistics

2019 Pipeline / Customer / Sendout Statistics										
Region	Miles of Main	Number of Services	Average Service Length (ft/svc)	Miles of Services	Total Distribution Pipeline	Residential Customers	Commercial and Industrial Customers	Total Customers	Sendout (MDT)	Sendout (MDT) / HDD
RI	3,195	194,550	61.6	2,270	5,464	247,714	25,260	272,974	44,552	12

Gas Distribution System Statistics

2019	Percentages of NGRID System					Asset Ratios			Gas Consumption Ratios			
Region	Percent of Main (%)	Percent of Service (%)	Percent of Distribution Pipeline (%)	Percent of Customers (%)	Percent of Sendout (%)	Service Density (svc / mile of main)	Meter Density (Customers / service)	Customer Density (Customers / Mile of Total Pipeline)	Main Capacities Used (Sendout MDT / Mile of Main)	Service Capacities Used (Sendout MDT / Service)	Pipeline Capacities Used (Sendout MDT / Mile Of Pipe)	Customer Usage (Sendout MDT / Customer)
RI	9.0%	7.3%	8.2%	7.3%	6.3%	60.90	1.40	49.96	13.95	0.23	8.15	0.16

Gas Distribution System Statistics

2019									
Leak Prone Pipe Inventory							Leak Prone Pipe Percentages		
Region	Leak Prone Main (miles)	Percent of Total Main (%)	Leak Prone Services	Percent of Total Services	Miles of Leak prone Services	Total Leak Prone Pipe (miles)	Percent of Total Leak Prone Main	Percent of Total Leak Prone Services	Percent of Total Leak Prone Pipe
RI	1,052	32.9%	44,257	22.7%	516	1,568	11.8%	9.1%	10.8%

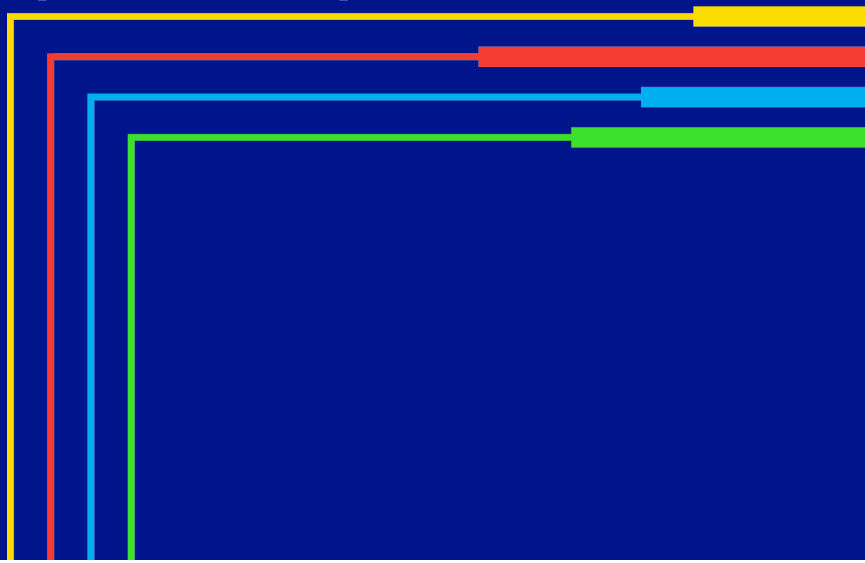
Gas Distribution System Statistics

2019											
Leak Data					Leak Rate Ratios						
Region	Total Leak Receipts (Main & Service)	Total Leak Repairs (Main & Service)	Year End Workable Leak Backlog	Total Repairs and Workable Leaks	Total Leak Receipts per Mile Total Pipe	Total Leak Receipts per Mile Leak Prone Pipe	Total Leak Repairs Per Mile Total Pipe	Total Leak Repairs Per Mile Leak Prone Pipe	Repairs and Workables per Mile Total Pipe	Repairs and Workable per Mile Leak Prone Pipe	
▼ RI	▼ 2,107	▼ 1,520	▼ 164	▼ 1,684	▼ 0.39	▼ 1.34	▼ 0.28	▼ 0.97	▼ 0.31	▼ 1.07	

12

System Integrity Report Analysis (Findings and Explanations)

nationalgrid



Analysis of Findings and Explanations

Rhode Island (RI)

- Total leak receipts have increased by 7.7% (153) in 2019 compared to 2018.
- MAIN – Leak repairs have decreased by 4.4% (45) in 2019 compared to 2018. Total Cast Iron Joint leaks comprise 74% of all main leaks.
- SERVICE – Leak repairs have decreased by 9% (51) compared to 2018. Corrosion leaks comprise 80% of all service leaks.
- TOTAL – Gas leak repairs decreased by 6% (96) in 2019.

Analysis of Findings and Explanations

- Rhode Island has seen some irregularities in both Main and Service Inventories and Leak Inventories due to conversion from Smallworld and LMS to ArcGIS and Maximo.

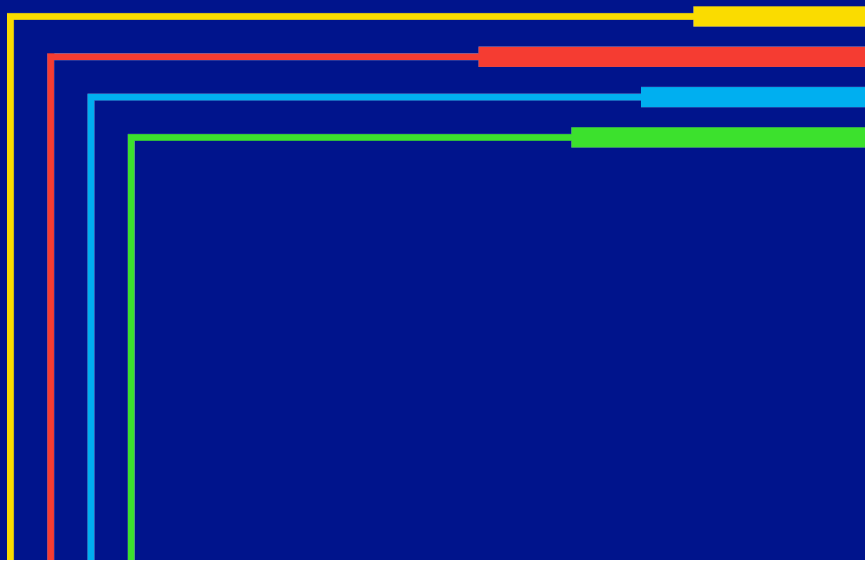
LPP Replacement Projection

		New England													
Region	Program	CY13	CY14	CY15	CY16	CY17	CY18	CY19	CY20	CY21	CY22	CY23	CY24	CY25	CY26
RI	All Programs	44.0	28.8	56.0	60.3	53.6	67.8	51.9	56	70	70	75	80	85	88
	Proactive	39.9	23.0	50.3	46.2	48.3	51.2	50.0	48	49	49	57	62	72	74

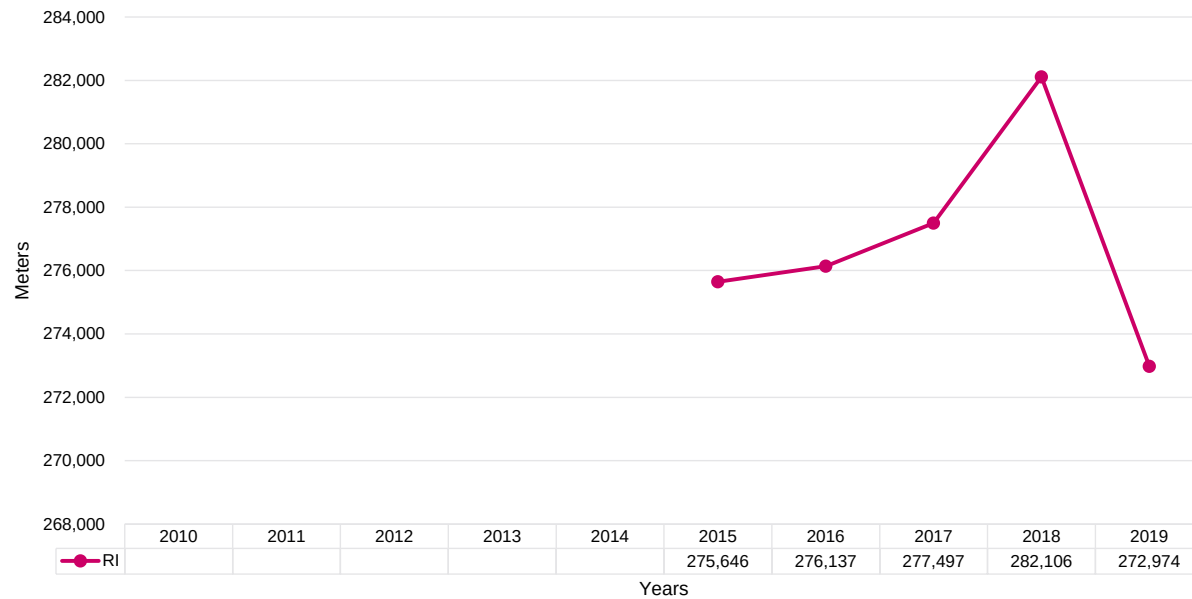
13

Meter Statistics

nationalgrid

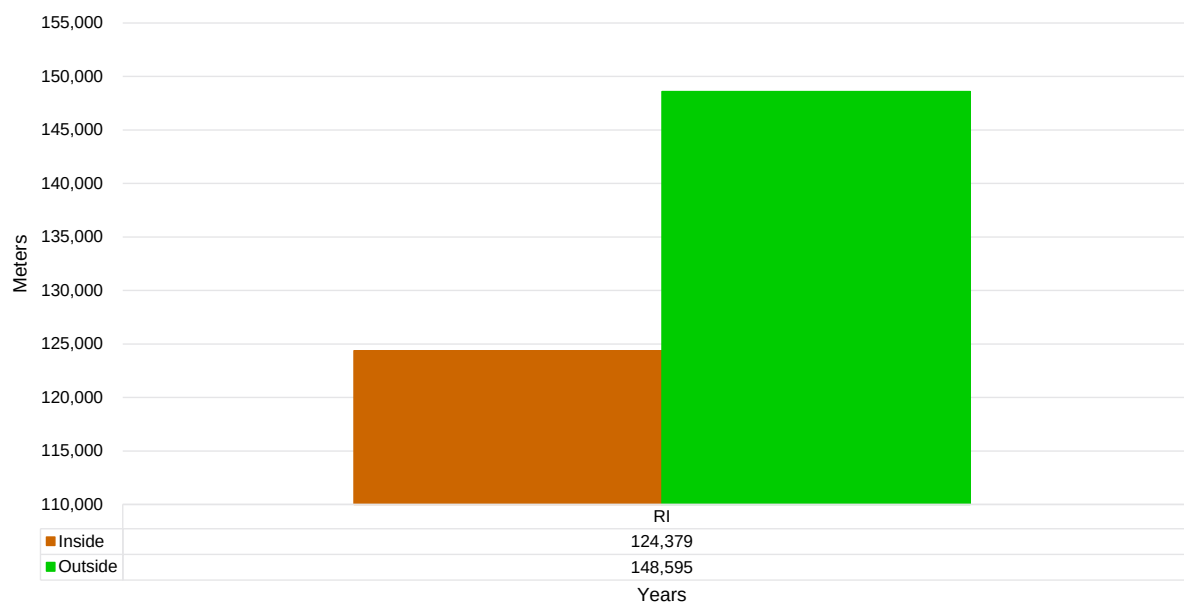


Meter Population By Region



Meter Population By Region

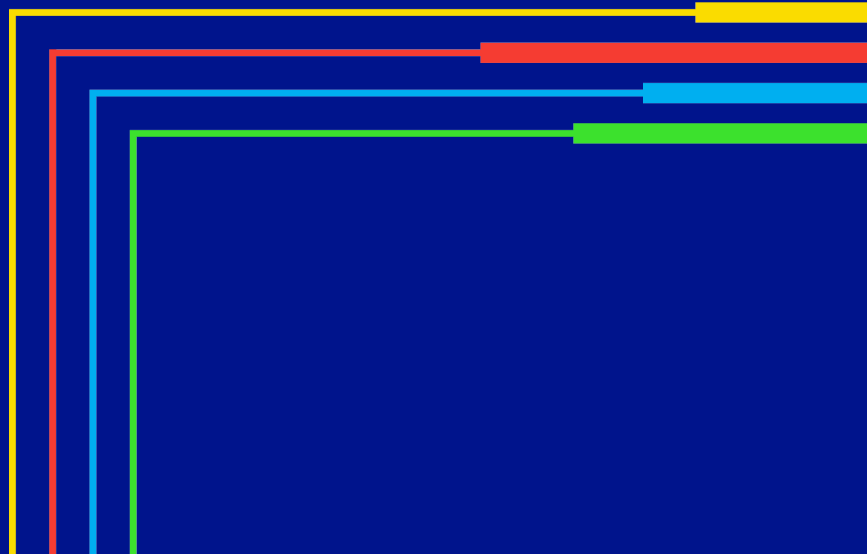
Inside Vs Outside



14

Appendices

nationalgrid



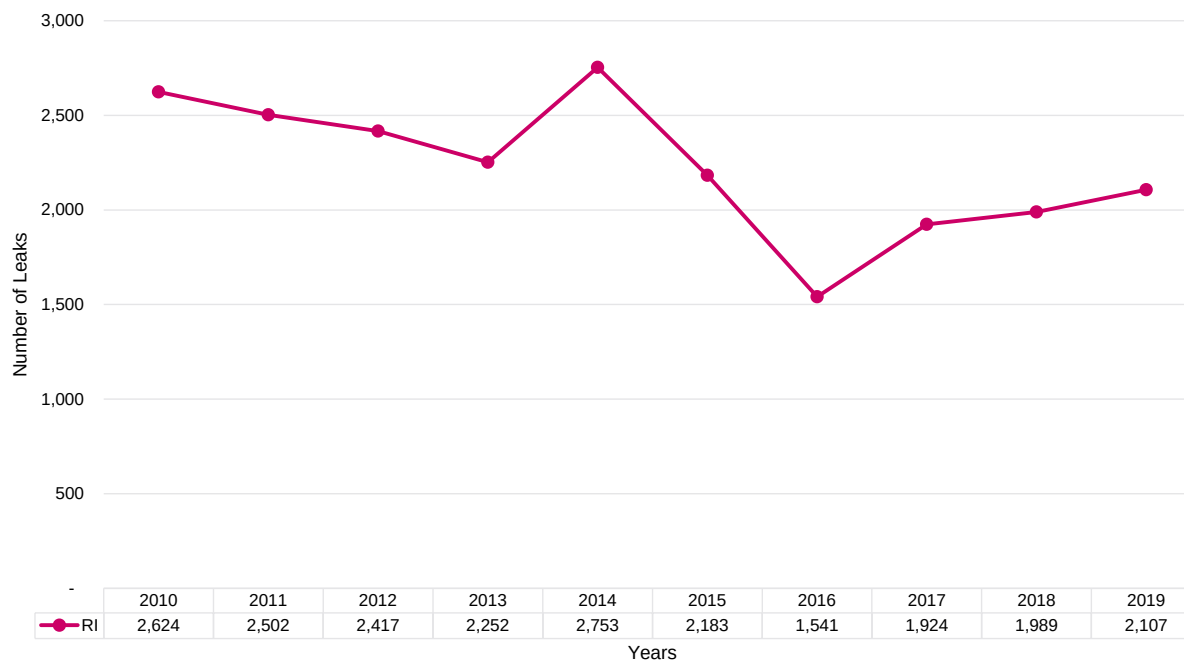
Total Leak Receipts

nationalgrid



Leak Receipts By Region

RI



2019 Material Cause Matrix (Main Leak Repairs)

nationalgrid

2019 Material Cause Matrix

RI

RI Main Leaks	Corrosion	Natural Force	Excavation	Other Outside Force	Material or Weld Failure	Equipment	Operations	Other	Total
Plastic	1	-	8	1	1	3	-	8	22
Cast Iron	13	65	4	1	1	2	-	760	846
Recond. Cast Iron	-	-	-	-	-	-	-	-	-
Steel - Protected	21	1	-	1	2	-	1	18	44
Steel - Unprotected	52	-	-	-	-	2	-	14	68
Other	-	-	-	-	-	-	-	-	-
Ductile Iron	-	-	-	-	-	-	-	2	2
Total	87	66	12	3	4	7	1	802	982

2019 Material Cause Matrix (Service Leak Repairs)

nationalgrid

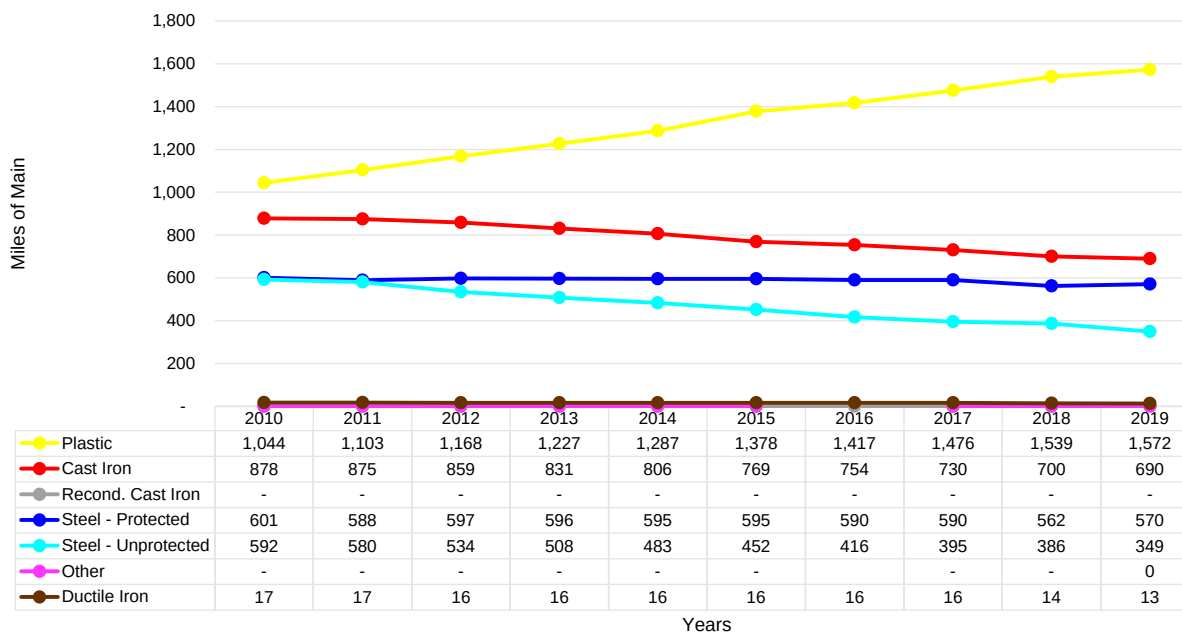
2019 Material Cause Matrix



RI Service Leaks	Corrosion	Natural Force	Excavation	Other Outside Force	Material or Weld Failure	Equipment	Operations	Other	Total
Plastic	17	-	62	2	2	25	2	13	123
Copper	1	-	-	-	-	-	-	-	1
Cast Iron	1	1	1	-	-	-	-	-	3
Steel - Unprotected	338	1	19	-	-	4	-	17	379
Steel - Protected	16	1	2	-	-	2	-	6	27
Other	1	-	-	1	-	-	1	2	5
Total	374	3	84	3	2	31	3	38	538

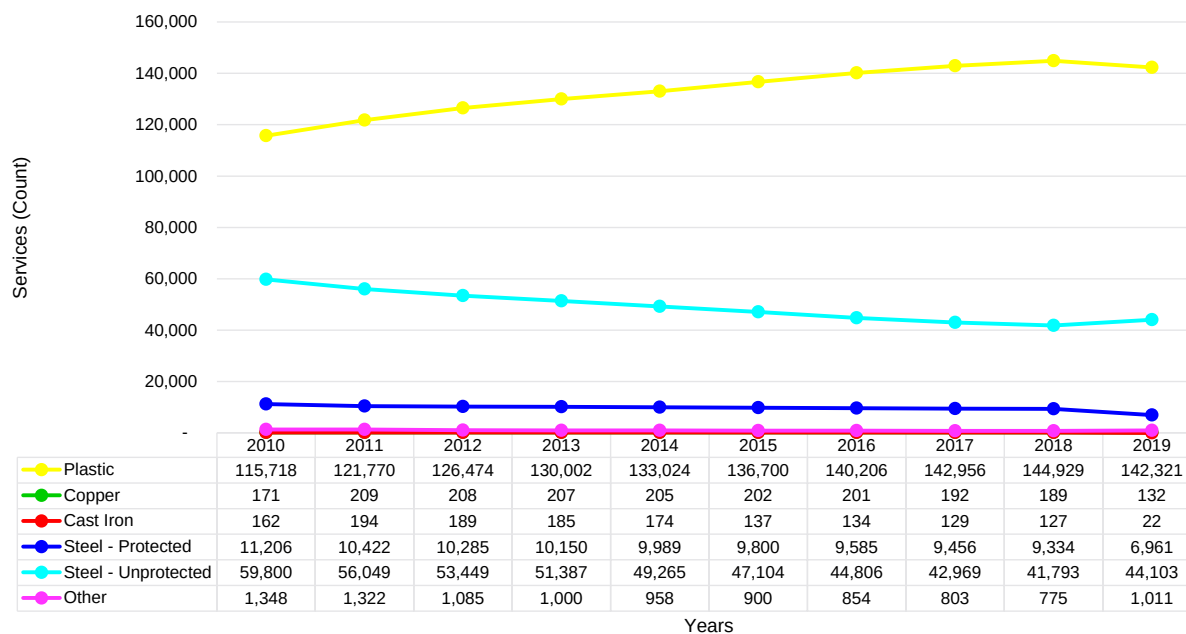
Main Inventory Trend By Material

RI



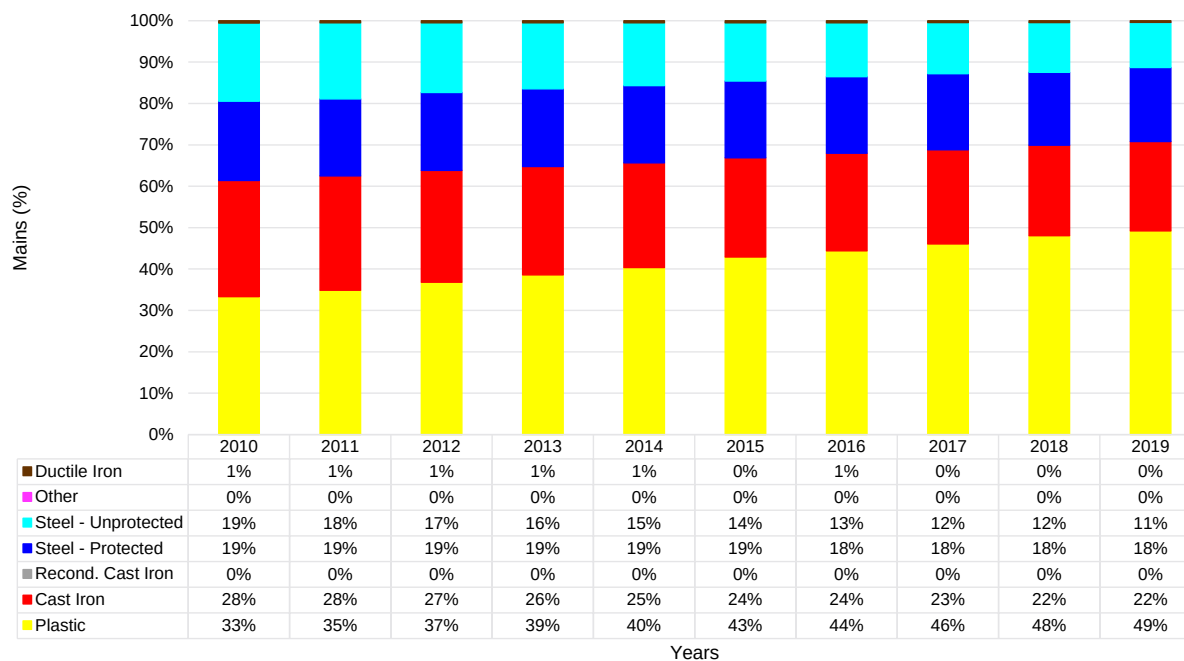
Service Inventory Trend By Material

RI



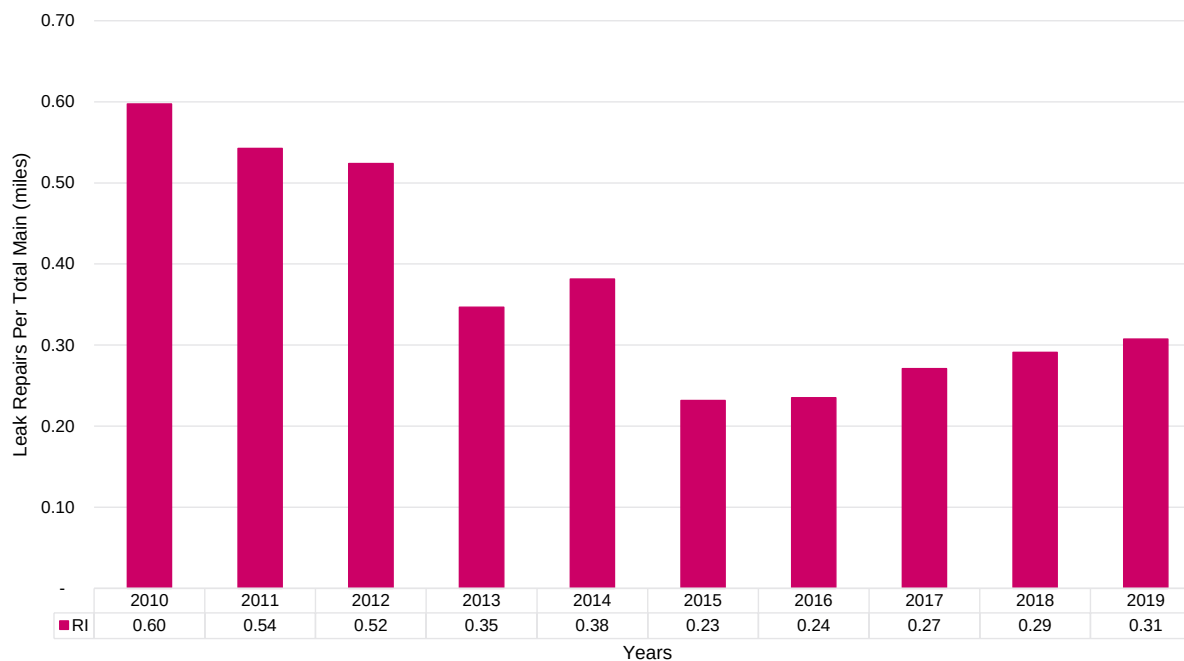
Main Inventory Analysis By Material

RI



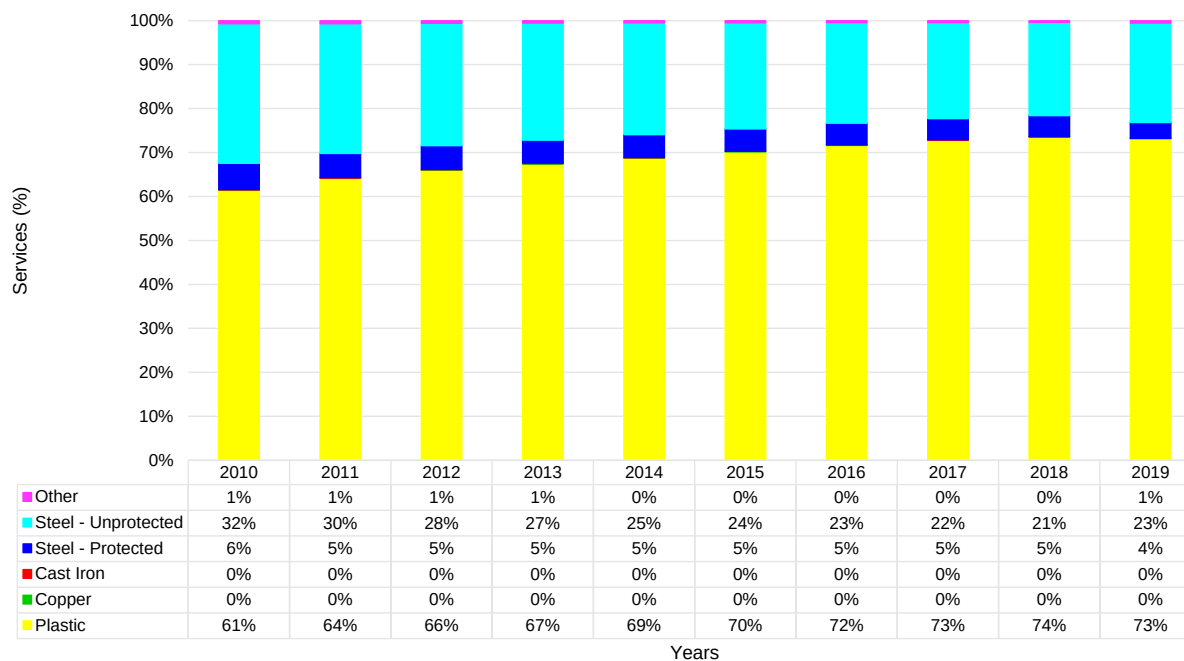
Main Leak Rate By Region

RI



Service Inventory Analysis By Material

RI



The logo for National Grid, featuring the word "nationalgrid" in white lowercase letters on a solid blue rectangular background. The "n" is lowercase, while "ationalgrid" is in a slightly bolder font weight. The "i" in "grid" has a small diamond-shaped dot above it.

nationalgrid