

PUBLIC VERSION

January 14, 2022

Via Electronic Delivery

Andrew Johnston, Esq.
Executive Secretary
Maryland Public Service Commission
6 St. Paul Street, 16th Floor
Baltimore, MD 21202

RE: Case No. 9035
Washington Gas's 63rd Quarterly Report

Dear Mr. Johnston:

Pursuant to the Commission's April 7, 2005 Notice of Inquiry, as modified by the Notice of Change in Reporting dated April 12, 2006 in the above-referenced proceeding, Washington Gas hereby files its 63rd Quarterly Report in this proceeding.

Please contact me if you have any questions.

Sincerely,



John C. Dodge
Associate General Counsel
& Director, Regulatory Matters

Attachments

cc: John Clementson, Assistant Chief Engineer
Lloyd Spivak, Deputy Staff Counsel
David S. Lapp, Maryland People's Counsel
Joel L. Greene, Esq.

IN THE MATTER OF THE INQUIRY INTO NATURAL GAS :
LEAKS FROM THE WASHINGTON GAS LIGHT COMPANY : CASE NO. 9035
DISTRIBUTION SYSTEM :

WASHINGTON GAS LIGHT COMPANY
63rd QUARTERLY REPORT

Pursuant to the Notice of Inquiry dated April 7, 2005 in the captioned proceeding, as modified by the Notice of Change in Reporting dated April 12, 2006, Washington Gas Light Company ("Washington Gas" or "Company") files its 63rd Quarterly Report in this proceeding.

The rehabilitation project to address the increase in mechanical coupling leaks in the affected area in Prince George's County, as modified by the Company on August 8, 2006, has been completed. Washington Gas is continuing to conduct leak surveys within the affected area in accordance with applicable regulations. All new Grade 1 leaks continue to be repaired immediately upon discovery and all new Grade 2 leaks within the affected area will be repaired within normal timeframes.

Washington Gas, Staff and the Office of People's Counsel ("OPC") met during the fall of 2015 to review the data submitted in the quarterly reports filed by the Company, including data regarding hexane injections. The Company offered to supplement its quarterly reports and OPC offered to develop a quarterly data protocol. The parties agreed that going forward an annual meeting regarding the Company's hexane injection program would be sufficient.

A **CONFIDENTIAL** report showing for each gate station on each of Washington Gas's interstate pipeline suppliers whether there is hexane injection capability at the gate station. Also attached are an annual summary of coupling leaks in Montgomery and Prince George's Counties from 2000 to date and the monthly leaks, along with the calculation of the Z Value, for both Counties.

In response to the specific questions raised by the Commission in the April 7, 2005 Notice of Inquiry, Washington Gas states as follows:

1. The written project plan and future revisions, including maps of the affected area.

The rehabilitation project in the affected area has been completed. However, the Company continues planned replacement of coupled pipe in Prince George's County based on engineering analysis of leak data.

2. Operator Qualification plans for additional crews and progress in obtaining the additional crews.

The rehabilitation project in the affected area has been completed.

3. Construction notices of planned repairs of known leaks.

The rehabilitation project in the affected area has been completed.

4. Construction notices for planned replacements of gas service lines and repairs of gas mains in the affected area.

The rehabilitation project in the affected area has been completed.

5. Updates on the investigations of the reason(s) for the degradation of the seals in the couplings.

Washington Gas is continuing to monitor coupling leaks throughout its distribution system.

6. Descriptions of any “temporary” remediation plans to correct or reduce future leaks until the rehabilitation program is completed.

Washington Gas continues to operate three hexane injection facilities. These facilities are used to condition domestic gas having low C5+ concentrations.

Washington Gas is continuing to monitor and analyze coupling leak rates in all areas of the system, including in the affected area of Prince George’s County. All leaks which are found are being addressed in compliance with DOT requirements.

Summary of Coupling Leaks
In Montgomery and Prince George's Counties, Maryland
2000 through 2021 (4th Quarter)
63rd Quarterly Report

	Coupling Leaks	
Year	Montgomery County	Prince George's County
2000	140	206
2001	171	241
2002	231	122
2003	167	430
2004	193	1870
2005	229	1929
2006	274	1163
2007	252	783
2008	329	487
2009	313	464
2010	211	319
2011	116	104
2012	132	48
2013	277	125
2014	399	190
2015	342	221
2016	452	331
2017	909	606
2018	1355	702
2019	1310	748
2020	689	406
2021	158	65

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Montgomery and Prince George's County
Z-Value Calculation

Montgomery County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
200001	12			
200002	20			
200003	10			
200004	9			
200005	6			
200006	6			
200007	9			
200008	14			
200009	14			
200010	18			
200011	15			
200012	7			
200101	26			
200102	19			
200103	14			
200104	6			
200105	7			
200106	8			
200107	10			
200108	10			
200109	21			
200110	16			
200111	18			
200112	16			
200201	44			
200202	15			
200203	7			
200204	15			
200205	19			
200206	20			
200207	10			
200208	12			
200209	15			
200210	22			
200211	19			
200212	33			
200301	14	15.06	7.87	-0.13
200302	15	15.11	7.85	-0.01
200303	19	14.97	7.81	0.52
200304	6	15.22	7.79	-1.18
200305	11	15.14	7.87	-0.53
200306	8	15.28	7.75	-0.94
200307	4	15.33	7.69	-1.47

Prince George's County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
200001	14			
200002	36			
200003	6			
200004	7			
200005	14			
200006	15			
200007	20			
200008	7			
200009	18			
200010	30			
200011	25			
200012	14			
200101	30			
200102	39			
200103	55			
200104	9			
200105	7			
200106	8			
200107	11			
200108	8			
200109	10			
200110	22			
200111	20			
200112	22			
200201	22			
200202	8			
200203	8			
200204	11			
200205	8			
200206	3			
200207	2			
200208	4			
200209	8			
200210	12			
200211	8			
200212	28			
200301	25	15.81	11.56	0.80
200302	26	16.11	11.65	0.85
200303	20	15.83	11.28	0.37
200304	12	16.22	11.17	-0.38
200305	10	16.36	11.08	-0.57
200306	10	16.25	11.13	-0.56
200307	9	16.11	11.17	-0.64

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Montgomery County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
200308	12	15.19	7.85	-0.41
200309	23	15.14	7.86	1.00
200310	17	15.39	7.97	0.20
200311	23	15.36	7.96	0.96
200312	15	15.58	8.06	-0.07
200401	18	15.81	7.93	0.28
200402	11	15.58	7.74	-0.59
200403	7	15.36	7.76	-1.08
200404	10	15.17	7.88	-0.66
200405	6	15.28	7.77	-1.19
200406	4	15.25	7.81	-1.44
200407	6	15.14	7.94	-1.15
200408	15	15.03	8.04	0.00
200409	26	15.17	7.99	1.36
200410	18	15.31	8.14	0.33
200411	39	15.36	8.15	2.90
200412	33	15.94	9.05	1.88
200501	27	16.42	9.48	1.12
200502	18	15.94	8.44	0.24
200503	15	16.03	8.44	-0.12
200504	18	16.25	8.30	0.21
200505	19	16.33	8.30	0.32
200506	11	16.33	8.30	-0.64
200507	7	16.08	8.33	-1.09
200508	15	16.00	8.40	-0.12
200509	16	16.08	8.38	-0.01
200510	37	16.11	8.38	2.49
200511	18	16.53	9.03	0.16
200512	28	16.50	9.02	1.28
200601	41	16.36	8.79	2.80
200602	21	17.11	9.69	0.40
200603	13	17.28	9.71	-0.44
200604	7	17.11	9.73	-1.04
200605	14	17.14	9.70	-0.32
200606	10	17.22	9.65	-0.75
200607	17	17.28	9.61	-0.03
200608	20	17.64	9.33	0.25
200609	24	17.86	9.29	0.66
200610	31	17.89	9.31	1.41
200611	39	18.28	9.56	2.17
200612	37	18.72	10.14	1.80
200701	35	19.33	10.56	1.48
200702	21	19.81	10.88	0.11
200703	16	20.08	10.77	-0.38
200704	10	20.33	10.56	-0.98
200705	13	20.33	10.56	-0.69
200706	11	20.53	10.35	-0.92

Prince George's County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
200308	9	15.81	11.21	-0.61
200309	19	15.86	11.17	0.28
200310	19	15.89	11.18	0.28
200311	61	15.58	10.93	4.15
200312	210	16.58	13.22	14.63
200401	250	22.03	34.83	6.55
200402	365	28.14	51.55	6.53
200403	102	37.19	76.24	0.85
200404	79	38.50	76.95	0.53
200405	29	40.44	77.07	-0.15
200406	52	41.06	76.88	0.14
200407	32	42.28	76.69	-0.13
200408	92	42.86	76.53	0.64
200409	136	45.19	76.71	1.18
200410	200	48.69	77.93	1.94
200411	241	53.64	81.74	2.29
200412	292	59.78	87.25	2.66
200501	273	67.28	95.16	2.16
200502	319	74.25	100.78	2.43
200503	245	82.89	108.00	1.50
200504	149	89.47	110.50	0.54
200505	91	93.31	110.10	-0.02
200506	68	95.61	109.12	-0.25
200507	67	97.42	108.08	-0.28
200508	57	99.22	106.98	-0.39
200509	93	100.69	105.99	-0.07
200510	114	103.06	104.81	0.10
200511	145	105.89	103.65	0.38
200512	308	109.69	102.46	1.94
200601	278	117.47	106.62	1.51
200602	210	124.50	108.67	0.79
200603	85	129.61	108.23	-0.41
200604	41	131.42	106.89	-0.85
200605	43	132.22	106.07	-0.84
200606	20	133.14	105.12	-1.08
200607	35	133.42	104.80	-0.94
200608	23	134.14	104.00	-1.07
200609	63	134.53	103.55	-0.69
200610	97	135.75	102.40	-0.38
200611	124	137.92	100.67	-0.14
200612	144	139.67	99.83	0.04
200701	182	137.83	99.11	0.45
200702	125	135.94	97.55	-0.11
200703	99	129.28	89.30	-0.34
200704	61	129.19	89.32	-0.76
200705	51	128.69	89.66	-0.87
200706	28	129.31	89.04	-1.14

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Montgomery County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
200707	10	20.72	10.10	-1.06
200708	8	20.83	9.95	-1.29
200709	20	20.64	10.13	-0.06
200710	19	20.47	10.09	-0.15
200711	37	20.50	10.09	1.64
200712	52	20.44	9.99	3.16
200801	40	20.97	11.11	1.71
200802	37	21.33	11.51	1.36
200803	29	21.86	11.79	0.61
200804	28	22.25	11.79	0.49
200805	15	22.53	11.80	-0.64
200806	18	22.42	11.85	-0.37
200807	10	22.61	11.72	-1.08
200808	15	22.69	11.61	-0.66
200809	16	22.69	11.61	-0.58
200810	37	22.69	11.61	1.23
200811	37	22.69	11.61	1.23
200812	47	23.22	11.83	2.01
200901	54	23.75	12.45	2.43
200902	24	24.11	13.14	-0.01
200903	22	24.19	13.13	-0.17
200904	9	24.44	12.99	-1.19
200905	9	24.50	12.92	-1.20
200906	13	24.36	13.06	-0.87
200907	23	24.44	12.98	-0.11
200908	17	24.61	12.92	-0.59
200909	18	24.53	12.96	-0.50
200910	36	24.36	13.00	0.90
200911	37	24.50	13.10	0.95
200912	51	24.44	13.04	2.04
201001	30	24.83	13.62	0.38
201002	34	24.69	13.54	0.69
201003	23	25.06	13.61	-0.15
201004	18	25.25	13.53	-0.54
201005	16	25.47	13.34	-0.71
201006	13	25.56	13.27	-0.95
201007	10	25.61	13.21	-1.18
201008	18	25.61	13.21	-0.58
201009	10	25.89	12.93	-1.23
201010	19	25.61	13.16	-0.50
201011	13	25.61	13.16	-0.96
201012	7	24.94	13.18	-1.36
201101	9	23.69	12.66	-1.16
201102	11	22.83	12.58	-0.94
201103	13	22.11	12.48	-0.73
201104	8	21.67	12.52	-1.09
201105	4	21.11	12.67	-1.35

Prince George's County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
200707	19	128.64	89.72	-1.22
200708	14	128.28	90.14	-1.27
200709	25	126.11	91.96	-1.10
200710	31	123.03	93.47	-0.98
200711	67	118.33	93.74	-0.55
200712	81	113.50	91.69	-0.35
200801	98	107.64	86.56	-0.11
200802	79	102.78	81.79	-0.29
200803	43	96.11	72.96	-0.73
200804	24	90.50	68.84	-0.97
200805	22	87.03	68.96	-0.94
200806	17	85.11	69.80	-0.98
200807	12	83.69	70.67	-1.01
200808	21	82.17	71.62	-0.85
200809	20	81.17	72.23	-0.85
200810	38	79.14	72.91	-0.56
200811	33	77.03	72.98	-0.60
200812	80	73.92	72.38	0.08
200901	80	67.58	60.28	0.21
200902	51	62.08	48.39	-0.23
200903	39	57.67	41.23	-0.45
200904	23	56.39	41.07	-0.81
200905	22	55.89	41.37	-0.82
200906	12	55.31	41.70	-1.04
200907	10	55.08	41.92	-1.08
200908	10	54.39	42.46	-1.05
200909	10	54.03	42.79	-1.03
200910	47	52.56	43.38	-0.13
200911	53	51.17	42.72	0.04
200912	107	49.19	40.86	1.41
201001	87	48.17	38.82	1.00
201002	87	45.53	32.11	1.29
201003	46	44.47	29.97	0.05
201004	17	43.00	28.48	-0.91
201005	13	41.78	28.63	-1.01
201006	6	40.72	28.98	-1.20
201007	9	40.11	29.48	-1.06
201008	6	39.83	29.74	-1.14
201009	12	39.61	29.96	-0.92
201010	14	39.25	30.22	-0.84
201011	11	38.78	30.49	-0.91
201012	11	37.22	30.43	-0.86
201101	25	35.28	29.79	-0.35
201102	14	33.25	27.81	-0.69
201103	11	31.44	26.85	-0.76
201104	4	30.56	26.99	-0.98
201105	4	30.00	27.33	-0.95

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Montgomery County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
201106	5	20.81	12.95	-1.22
201107	5	20.44	13.21	-1.17
201108	2	20.31	13.35	-1.37
201109	11	19.94	13.67	-0.65
201110	20	19.81	13.74	0.01
201111	12	19.33	13.42	-0.55
201112	16	18.64	13.12	-0.20
201201	14	17.78	12.19	-0.31
201202	8	16.67	10.50	-0.83
201203	8	16.22	10.52	-0.78
201204	6	15.83	10.56	-0.93
201205	2	15.75	10.62	-1.29
201206	6	15.56	10.81	-0.88
201207	2	15.36	10.92	-1.22
201208	5	14.78	11.06	-0.88
201209	4	14.44	11.18	-0.93
201210	21	14.06	11.29	0.62
201211	42	13.64	10.72	2.65
201212	14	13.78	11.06	0.02
201301	14	12.75	9.03	0.14
201302	9	12.31	8.54	-0.39
201303	12	11.61	7.70	0.05
201304	9	11.31	7.45	-0.31
201305	9	11.06	7.37	-0.28
201306	2	10.86	7.33	-1.21
201307	9	10.56	7.47	-0.21
201308	19	10.53	7.47	1.13
201309	14	10.56	7.50	0.46
201310	20	10.67	7.52	1.24
201311	101	10.69	7.55	11.95
201312	59	13.14	16.85	2.72
201401	24	14.58	18.46	0.51
201402	28	15.00	18.50	0.70
201403	33	15.47	18.61	0.94
201404	18	16.03	18.83	0.10
201405	37	16.31	18.78	1.10
201406	43	17.22	18.97	1.36
201407	37	18.28	19.32	0.97
201408	34	19.17	19.43	0.76
201409	22	20.06	19.35	0.10
201410	26	20.36	19.29	0.29
201411	36	20.53	19.32	0.80
201412	61	21.19	19.43	2.05
201501	81	22.44	20.50	2.86
201502	44	24.31	22.64	0.87
201503	64	25.31	22.70	1.70
201504	26	26.86	23.39	-0.04

Prince George's County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
201106		29.50	27.64	-1.07
201107	3	29.86	27.96	-0.96
201108	10	29.60	28.17	-0.70
201109	6	29.29	28.33	-0.82
201110	9	28.89	28.56	-0.70
201111	12	28.06	28.71	-0.56
201112	6	27.46	28.83	-0.74
201201	6	25.34	27.54	-0.70
201202	5	23.23	26.02	-0.70
201203	1	21.91	25.74	-0.81
201204		20.83	25.80	-0.81
201205		20.76	26.18	-0.79
201206	1	20.73	26.59	-0.74
201207		20.39	26.77	-0.76
201208	3	20.72	27.13	-0.65
201209	2	20.50	27.25	-0.68
201210	6	20.25	27.38	-0.52
201211	16	18.97	27.05	-0.11
201212	8	17.81	26.33	-0.37
201301	7	14.72	20.73	-0.37
201302	9	12.22	16.03	-0.20
201303	4	9.78	8.40	-0.69
201304	4	8.47	5.25	-0.85
201305		8.06	5.07	-1.59
201306	3	7.90	5.08	-0.97
201307	4	7.81	5.14	-0.74
201308	6	7.65	5.18	-0.32
201309	12	7.65	5.18	0.84
201310	27	7.65	5.18	3.74
201311	20	8.06	6.15	1.94
201312	29	8.35	6.49	3.18
201401	23	8.94	7.47	1.88
201402	19	8.87	7.33	1.38
201403	17	9.03	7.50	1.06
201404	15	9.23	7.63	0.76
201405	12	9.58	7.64	0.32
201406	8	9.84	7.58	-0.24
201407	7	9.78	7.46	-0.37
201408	13	9.91	7.38	0.42
201409	6	10.00	7.40	-0.54
201410	15	10.00	7.40	0.68
201411	17	10.19	7.45	0.91
201412	38	10.34	7.54	3.67
201501	52	11.34	8.94	4.55
201502	21	12.78	11.41	0.72
201503	42	13.28	11.41	2.52
201504	9	14.56	12.25	-0.45

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Z-Value Calculation

Montgomery County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
201505	11	27.42	23.11	-0.71
201506	10	27.67	22.88	-0.77
201507	10	27.78	22.78	-0.78
201508	18	28.00	22.56	-0.44
201509	11	28.36	22.28	-0.78
201510	20	28.56	22.09	-0.39
201511	18	28.53	22.10	-0.48
201512	29	27.86	22.05	0.05
201601	39	28.28	21.92	0.49
201602	95	28.97	21.85	3.02
201603	47	31.36	24.18	0.65
201604	16	32.33	24.08	-0.68
201605	24	32.53	23.92	-0.36
201606	23	32.94	23.62	-0.42
201607	6	33.53	23.09	-1.19
201608	11	33.44	23.19	-0.97
201609	10	33.22	23.37	-0.99
201610	26	33.11	23.47	-0.30
201611	66	33.28	23.40	1.40
201612	89	32.31	21.12	2.68
201701	116	33.14	22.73	3.65
201702	102	35.69	26.53	2.50
201703	81	37.75	28.69	1.51
201704	55	39.08	29.57	0.54
201705	35	40.11	29.46	-0.17
201706	41	40.06	29.47	0.03
201707	24	40.00	29.46	-0.54
201708	58	39.64	29.58	0.62
201709	39	40.31	29.72	-0.04
201710	51	40.78	29.55	0.35
201711	134	41.47	29.49	3.14
201712	173	44.19	33.25	3.87
201801	214	47.31	39.52	4.22
201802	210	51.00	48.05	3.31
201803	129	55.61	54.85	1.34
201804	99	57.42	56.19	0.74
201805	34	59.44	56.34	-0.45
201806	55	60.08	55.90	-0.09
201807	59	61.33	55.25	-0.04
201808	37	62.69	54.55	-0.47
201809	60	63.22	54.19	-0.06
201810	89	64.58	53.45	0.46
201811	109	66.50	53.04	0.80
201812	260	69.03	52.83	3.61
201901	229	75.44	61.20	2.51
201902	260	80.72	65.97	2.72
201903	182	85.31	72.41	1.34

Prince George's County

yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
201505	4	14.39	12.10	-0.86
201506	14	14.09	12.05	-0.01
201507	14	14.47	11.82	-0.04
201508	7	14.46	11.65	-0.64
201509	6	14.57	11.55	-0.74
201510	15	14.69	11.44	0.03
201511	12	14.94	11.34	-0.26
201512	25	14.83	11.35	0.90
201601	58	15.31	11.41	3.74
201602	55	16.77	13.40	2.85
201603	32	18.09	14.80	0.94
201604	12	18.89	14.77	-0.47
201605	13	19.11	14.60	-0.42
201606	12	18.94	14.42	-0.48
201607	7	19.19	14.22	-0.86
201608	13	19.28	14.13	-0.44
201609	11	19.47	13.99	-0.61
201610	17	19.44	14.01	-0.17
201611	31	19.17	13.95	0.85
201612	70	19.47	14.09	3.59
201701	100	20.61	16.36	4.85
201702	58	22.75	21.04	1.68
201703	52	23.83	21.83	1.29
201704	45	24.81	22.30	0.91
201705	26	25.64	22.48	0.02
201706	8	26.03	22.36	-0.81
201707	14	26.03	22.36	-0.54
201708	21	26.22	22.22	-0.24
201709	33	26.44	22.12	0.30
201710	44	27.19	21.86	0.77
201711	76	28.00	21.93	2.19
201712	129	29.64	23.25	4.27
201801	125	32.17	28.54	3.25
201802	99	34.19	32.33	2.00
201803	58	36.36	33.99	0.64
201804	51	36.81	34.17	0.42
201805	37	37.97	33.91	-0.03
201806	21	38.89	33.41	-0.54
201807	11	39.08	33.28	-0.84
201808	30	39.00	33.34	-0.27
201809	17	39.64	32.93	-0.69
201810	42	39.94	32.66	0.06
201811	74	40.69	32.38	1.03
201812	137	42.42	32.46	2.91
201901	182	45.53	35.92	3.80
201902	120	48.97	42.50	1.67
201903	99	50.78	44.11	1.09

Case No. 9035
63rd Quarterly Report
Montgomery and Prince George's County
Z-Value Calculation

Montgomery County					Prince George's County				
yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value	yyyymm	Total	Rolling 36 Month Average	Rolling 36 Month Standard Deviation	Z Value
201904	59	89.06	73.85	-0.41	201904	38	52.64	44.71	-0.33
201905	34	90.25	72.98	-0.77	201905	19	53.36	44.24	-0.78
201906	23	90.53	72.74	-0.93	201906	16	53.53	44.09	-0.85
201907	21	90.53	72.74	-0.96	201907	19	53.64	43.99	-0.79
201908	27	90.94	72.28	-0.88	201908	15	53.97	43.67	-0.89
201909	53	91.39	71.82	-0.53	201909	26	54.03	43.62	-0.64
201910	102	92.58	70.78	0.13	201910	38	54.44	43.27	-0.38
201911	117	94.69	69.87	0.32	201911	65	55.03	42.89	0.23
201912	203	96.11	69.79	1.53	201912	111	55.97	42.72	1.29
202001	175	99.28	72.00	1.05	202001	131	57.11	43.64	1.69
202002	163	100.92	73.06	0.85	202002	84	57.97	44.80	0.58
202003	117	102.61	73.79	0.19	202003	62	58.69	45.01	0.07
202004	50	103.61	73.73	-0.73	202004	53	58.97	45.00	-0.13
202005	43	103.47	73.83	-0.82	202005	27	59.19	44.95	-0.72
202006	43	103.69	73.63	-0.82	202006	12	59.22	44.92	-1.05
202007	25	103.75	73.58	-1.07	202007	10	59.33	44.80	-1.10
202008	28	103.78	73.55	-1.03	202008	13	59.22	44.92	-1.03
202009	19	102.94	74.25	-1.13	202009	11	59.00	45.13	-1.06
202010	6	102.39	74.82	-1.29	202010		58.39	45.64	-1.28
202011	5	101.14	76.07	-1.26	202011		58.80	46.24	-1.27
202012	15	97.56	77.50	-1.07	202012	3	58.29	46.84	-1.18
202101	12	93.17	77.58	-1.05	202101	3	54.59	46.05	-1.12
202102	14	87.56	75.87	-0.97	202102	4	51.00	45.14	-1.04
202103	18	82.11	73.84	-0.87	202103	5	48.21	45.02	-0.96
202104	4	79.03	74.15	-1.01	202104	5	46.65	45.59	-0.91
202105	6	76.39	75.10	-0.94	202105	1	45.29	46.13	-0.96
202106	1	75.61	75.69	-0.99	202106	3	44.24	46.74	-0.88
202107	2	74.11	76.64	-0.94	202107		43.71	47.11	-0.93
202108	2	72.53	77.55	-0.91	202108		44.70	47.48	-0.94
202109	2	71.56	78.22	-0.89	202109		45.16	48.16	-0.94
202110	5	69.94	79.06	-0.82	202110	4	46.06	48.68	-0.86
202111	11	67.61	79.72	-0.71	202111	11	44.84	49.26	-0.69
202112	81	64.89	79.94	0.20	202112	29	42.81	49.32	-0.28
Grand Total	8649				Grand Total	11560			

The Z Value represents the (i) number of mechanical coupling leaks initiated during the current month -
(ii) the average number of monthly leaks over the prior 36 months/the standard deviation of monthly leaks
over the prior 36 months.