

SD&GE July 14, 2024  
 Rulemaking (R) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno,  
 in Response to Data Request 15-01-008, 2024 June Report  
 Appendix 4 - Rev. 03/29/2024

Notes:  
 Use a formula-derived value with the formula used in the Annual Estimates column. Do not use a copy and paste value.  
 At the end of Annual Estimates column, add a summation total in a cell for a column total, and then highlight orange.  
 If all the status and services are not covered annually, use the tab "Uninspected Pipeline Leaks" to estimate emissions.  
 Do not record above ground MSA leaks on this tab. Use Appendix 4 instead. Do continue to list above ground leaks associated with the Distribution Main & Service pipeline system.  
 After completing the tab on "Pipeline Leaks" and "Uninspected Pipelines," fill in the table for "Pipeline Leak Summary."

Sum Total Emissions from leaks carried over from before 2023 **2**  
 Sum Total Emissions from Survey leaks discovered in 2023 **1,438**  
 Sum Total Emissions from O&M Leaks discovered in 2023 **291**  
 Grand Total of all 2023 emissions from leaks **1,697**

**Distribution Main & Service Pipelines:**

ID	Geographic Location	Pipe Classification	Pipe Material	Pipe Size (Inches)	Pipe Age (Months)	Pressure (Psi)	Leak Grade	Upgraded Leak Grade or Downgraded Leak Grade	Above Ground or Below Ground	Leak Discovery Method	Discovery Date (MM/DD/YYYY)	Re-Grade Date (MM/DD/YYYY)	Repair Date (MM/DD/YYYY)	Scheduled Repair Date (MM/DD/YYYY)	Reason for Not Scheduling a Repair	Number of Days of Gas Leaking	Emission Factor (Mscf/Da)	Annual Emissions (Mscf)	Explanatory Notes / Comments
2102262	02104	DR	PC	3/4"	895	Less than or equal to 60	2	B	M	5/25/2023						10	10	1.154	1.2
2102263	02104	DR	PC	3/4"	899	Less than or equal to 60	2	B	S	6/26/2023			7/18/2023			109	23	0.154	23.0
2102264	02104	DR	PC	3/4"	779	Less than or equal to 60	2	B	M	3/06/2023			2/10/2023			10	10	0.154	1.2
2102265	02104	DR	P	1 1/4"	127	Less than or equal to 60	1	B	S	2/26/2023			2/26/2023			1	1	0.154	0.1
2102266	02104	DR	PC	3/4"	767	Less than or equal to 60	2	B	S	5/02/2023			5/10/2023			11	11	0.154	1.1
2102267	02104	DR	P	1 1/2"	419	Less than or equal to 60	1	B	S	7/26/2023			7/26/2023			207	1	0.154	23.9
2102268	02113	MR	P	1 1/4"	168	Less than or equal to 60	2	B	S	11/26/2023			11/26/2023			14	5	0.154	26.2
2111746	02105	DR	PC	3/4"	899	Less than or equal to 60	2	B	S	6/26/2023			7/11/2023			192	36	0.154	22.2
2102269	02105	MR	PC	2"	755	Less than or equal to 60	2	B	S	5/22/2023			6/13/2023			164	23	0.154	18.9
2102270	02105	MR	PC	2"	137	Less than or equal to 60	2	B	S	5/20/2023			5/20/2023			7	7	0.154	11.7
2102271	02105	DR	PC	3/4"	815	Less than or equal to 60	2	B	S	9/13/2023			9/13/2023			236	30	0.154	29.5
2102272	02106	MR	P	2"	187	Less than or equal to 60	2	B	S	4/7/2023			5/10/2023			135	39	0.154	15.6
2102273	02027	MR	PC	1 1/2"	767	Less than or equal to 60	2	B	S	7/10/2023			8/2/2023			214	24	0.154	24.7
2102274	02106	MR	PC	2"	187	Less than or equal to 60	2	B	S	5/12/2023			5/28/2023			188	18	0.154	18.8
2102275	02025	MR	PC	4"	1043	Less than or equal to 60	2	B	S	4/21/2023			4/21/2023			111	17	0.154	12.8
2102276	02105	MR	PC	1 1/2"	851	Less than or equal to 60	1	B	M	2/15/2023			2/10/2023			1	1	0.154	0.1
2102277	02105	MR	PC	1 1/2"	838	Less than or equal to 60	2	B	S	7/18/2023			7/18/2023			244	45	0.154	21.2
2102278	02020	DR	P	1 1/2"	375	Less than or equal to 60	2	B	S	8/2/2023			8/2/2023			213	15	0.154	28.6
2102279	02105	DR	PC	3/4"	707	Less than or equal to 60	2	B	M	11/7/2023			11/7/2023			1	1	0.154	0.1
2102280	02124	DR	PC	3/4"	635	Less than or equal to 60	1	B	M	12/22/2023			12/22/2023			1	1	0.154	0.1
2102281	02102	DR	PC	1 1/2"	175	Greater than 60	1	B	M	11/20/2023			11/20/2023			1	1	0.154	0.1
2106211	02113	DR	PC	3/4"	851	Less than or equal to 60	1	B	M	3/29/2023			4/24/2023			27	27	0.154	3.1
2102282	02105	DR	PC	3/4"	751	Less than or equal to 60	2	B	S	5/08/2023			5/08/2023			1	1	0.154	14.8
2102283	02105	MR	PC	2"	921	Less than or equal to 60	2	B	S	5/15/2023			6/16/2023			167	33	0.154	19.3
2102284	02113	DR	PC	1"	863	Less than or equal to 60	2	B	M	11/20/2023			11/20/2023			1	1	0.154	0.1
2102285	02027	MR	PC	3/4"	658	Less than or equal to 60	2	B	S	6/16/2023			6/17/2023			117	6	0.154	11.8
2102286	02113	DR	PC	3/4"	723	Less than or equal to 60	2	B	S	1/21/2023			1/21/2023			1	1	0.154	0.1
2102287	02105	MR	PC	3/4"	755	Less than or equal to 60	2	B	M	3/16/2023			3/16/2023			21	21	0.154	2.4
2102288	02105	MR	PC	3/4"	847	Less than or equal to 60	2	B	S	10/22/2023			10/22/2023			275	11	0.154	11.7
2102289	02105	MR	P	1 1/4"	1	Greater than 60	1	B	S	7/19/2023			7/19/2023			1	1	0.154	0.1
2102290	02027	DR	PC	3/4"	779	Less than or equal to 60	2	B	S	6/28/2023			7/17/2023			198	25	0.154	22.8
2102291	02105	MR	PC	1 1/2"	755	Less than or equal to 60	2	B	S	9/7/2023			9/7/2023			208	20	0.154	23.3
2102292	02027	MR	P	3"	187	Less than or equal to 60	1	B	M	4/12/2023			4/12/2023			1	1	0.154	0.1
2102293	02106	MR	PC	2"	803	Less than or equal to 60	2	B	M	9/22/2023			9/22/2023			1	1	0.154	0.1
2102294	02105	MR	P	1 1/2"	791	Less than or equal to 60	1	B	M	9/20/2023			9/20/2023			1	1	0.154	1
2102295	02105	MR	P	1 1/2"	595	Less than or equal to 60	2	B	S	7/9/2023			7/9/2023			186	14	0.154	21.5
2102296	02024	MR	PC	3/4"	695	Less than or equal to 60	2	B	S	8/6/2023			8/6/2023			18	18	0.154	1.8
2102297	02113	DR	PC	1"	1019	Less than or equal to 60	2	B	M	12/4/2023			12/5/2023			2	2	0.154	0.2
2102298	02027	MR	PC	2"	791	Less than or equal to 60	2	B	S	10/18/2023			10/18/2023			112	11	0.154	16.0
2102299	02114	MR	PC	1 1/2"	911	Less than or equal to 60	2	B	S	6/12/2023			6/12/2023			173	23	0.154	20.0
2102300	02105	DR	PC	3/4"	767	Less than or equal to 60	2	B	S	4/10/2023			4/10/2023			114	12	0.154	13.2
2102301	02104	DR	P	1 1/4"	175	Less than or equal to 60	1	B	S	2/7/2023			2/7/2023			1	1	0.154	0.1
2102302	02027	MR	PC	3/4"	779	Less than or equal to 60	2	B	M	11/16/2023			11/16/2023			1	1	0.154	0.1
2102303	02105	MR	P	2"	779	Less than or equal to 60	2	B	S	12/22/2023			12/22/2023			280	1	0.154	28.0
2102304	02105	MR	PC	3/4"	779	Less than or equal to 60	2	B	M	12/13/2023			12/13/2023			1	1	0.154	0.1
2102305	02105	MR	P	1 1/2"	1007	Less than or equal to 60	1	B	M	12/13/2023			12/13/2023			1	1	0.154	0.1
2102306	02114	DR	PC	3/4"	875	Less than or equal to 60	2	B	M	4/25/2023			4/25/2023			17	17	0.154	2.0
2102307	02105	DR	PC	3/4"	779	Less than or equal to 60	2	B	S	8/08/2023			8/24/2023			17	17	0.154	27.2
2102308	02105	DR	PC	3/4"	811	Less than or equal to 60	2	B	M	8/11/2023			8/11/2023			19	19	0.154	2.2
2102309	02027	DR	PC	3/4"	647	Less than or equal to 60	2	B	S	5/10/2023			6/13/2023			164	27	0.154	18.9
2102310	02113	DR	P	1 1/4"	563	Less than or equal to 60	2	B	S	4/13/2023			4/13/2023			107	5	0.154	10.7
2102311	02024	DR	P	1 1/4"	599	Less than or equal to 60	2	B	S	4/10/2023			4/17/2023			8	8	0.154	13.3
2102312	02105	MR	P	1 1/2"	623	Less than or equal to 60	2	B	S	8/25/2023			8/25/2023			1	1	0.154	0.1
2102313	02104	DR	P	1 1/2"	565	Less than or equal to 60	2	B	S	9/18/2023			9/18/2023			271	11	0.154	11.0
2102314	02094	MR	PC	3/4"	1	Greater than 60	1	B	M	6/14/2023			6/14/2023			1	1	0.154	0.2
2102315	02105	DR	PC	3/4"	755	Less than or equal to 60	1	B	M	3/28/2023			3/28/2023			1	1	0.154	0.1
2102316	02105	MR	PC	2"	551	Less than or equal to 60	2	B	S	2/08/2023			2/8/2023			47	1	0.154	5.4
2102317	02105	MR	PC	3/4"	551	Less than or equal to 60	2	B	M	3/10/2023			3/10/2023			1	1	0.154	0.1
2102318	02027	DR	PC	3/4"	42	Less than or equal to 60	2	B	S	9/14/2023			9/12/2023			265	9	0.154	30.6
2102319	02113	MR	P	1 1/2"	923	Less than or equal to 60	2	B	M	4/29/2023			4/29/2023			8	8	0.154	0.9
2102320	02027	MR	PC	1 1/2"	743	Less than or equal to 60	2	B	S	9/26/2023			9/26/2023			8	8	0.154	0.9
2102321	02105	MR	PC	3/4"	617	Less than or equal to 60	2	B	M	7/20/2023			7/20/2023			2	2	0.154	0.2
2102322	02105	DR	P	3"	187	Less than or equal to 60	2	B	S	11/14/2023			11/17/2023			321	4	0.154	17.0
2102323	02105	MR	PC	3/4"	823	Less than or equal to 60	2	B	S	11/20/2023			11/20/2023			160	1	0.154	16.0
2102324	02105	MR	PC	3/4"	871	Less than or equal to 60	1	B	M	11/13/2023			11/13/2023			1	1	0.154	0.1
2102325	02029	DR	PC	1 1/2"		Less than or equal to 60	2	B	S	3/17/2023			3/17/2023			365	7	0.154	41.1
2102326	02105	MR	PC	3/4"		Less than or equal to 60	2	B	S	3/6/2023			3/4/2023			171	7	0.154	0.8
2102327	02114	MR	PC	1 1/2"	1146	Less than or equal to 60	2	B	S	6/2/2023			6/20/2023			173	20	0.154	19.7
2102328	02105	MR	PC	3/4"	823	Less than or equal to 60	2	B	S	9/23/2023			9/23/2023			132	1	0.154	13.2
2102329	02105	DR	PC	3/4"	767	Less than or equal to 60	2	B	M	3/25/2023			3/25/2023			1	1	0.154	0.1
2102330	02024	MR	PC	3/4"	613	Less than or equal to 60	2	B	M	11/16/2023			11/16/2023			1	1	0.154	0.1
2102331	02114	MR	PC	1 1/2"	1021	Less than or equal to 60	2	B	M	10/23/2023			11/7/2023			16	16	0.154	1.8
2102332	02105	DR	PC	3/4"	851														

212784	9264	MB	P	2"	612	Less than or equal to 60	2	B	M	12/27/2023	12/28/2023	2	2	0.1554	0.2
212785	9264	MB	P	3/4"	322	Less than or equal to 60	2	B	M	10/23/2023	10/23/2023	1	1	0.1554	0.2
212786	9264	MB	P	3/4"	9	Less than or equal to 60	1	B	M	4/9/2023	4/9/2023	1	1	0.1554	0.1
212787	9264	MB	P	1/2" CTS	81	Less than or equal to 60	2	B	M	10/29/2023	10/29/2023	1	1	0.1554	0.8
212788	9264	MB	P	3/4"	606	Less than or equal to 60	2	B	M	6/2/2023	6/2/2023	229	58	0.1554	28.4
212789	9264	MB	P	3/4"	85	Less than or equal to 60	2	B	S	5/27/2023	6/12/2023	168	27	0.1554	18.8
212790	9264	MB	P	3/4"	791	Less than or equal to 60	2	B	S	1/17/2023	8/20/2023	11	1	0.1554	0.4
212791	9264	MB	P	1/2" CTS	83	Less than or equal to 60	1	B	M	12/22/2023	1/22/2024	1	1	0.1554	0.1
212792	9264	MB	P	3/4"	827	Less than or equal to 60	2	B	S	5/10/2023	5/10/2023	1	1	0.1554	0.3
212793	9264	MB	P	3/4"	575	Less than or equal to 60	1	B	S	4/4/2023	4/4/2023	95	2	0.1554	11.0
212794	9264	MB	P	3/4"	995	Less than or equal to 60	1	B	M	5/17/2023	5/17/2023	1	1	0.1554	0.1
212795	9264	MB	P	1 1/2"	985	Less than or equal to 60	2	B	S	5/23/2023	6/9/2023	160	18	0.1554	18.5
212796	9264	MB	P	3/4"	779	Less than or equal to 60	1	B	M	12/19/2023	12/19/2023	1	1	0.1554	0.1
212797	9264	MB	P	3/4"	827	Less than or equal to 60	1	B	M	8/18/2023	8/18/2023	1	1	0.1554	0.1
212798	9264	MB	P	1/2"	923	Less than or equal to 60	2	B	M	1/13/2023	2/19/2023	2	2	0.1554	0.2
212799	9264	MB	P	3/4"	599	Less than or equal to 60	1	B	M	11/4/2023	11/4/2023	1	1	0.1554	0.1
212800	9264	MB	P	3/4"	923	Less than or equal to 60	2	B	S	3/7/2023	4/9/2023	93	28	0.1554	10.7
212801	9264	MB	P	3/4"	743	Less than or equal to 60	2	B	S	3/20/2023	3/20/2023	14	1	0.1554	14.3
212802	9264	MB	P	1 1/4"	539	Less than or equal to 60	2	B	M	3/22/2023	3/22/2023	1	1	0.1554	0.1
212803	9264	MB	P	3/4"	623	Less than or equal to 60	2	B	M	11/24/2023	11/24/2023	1	1	0.1554	16.7
212804	9264	MB	P	1/2" CTS	443	Less than or equal to 60	1	B	S	5/2/2023	5/2/2023	144	23	0.1554	16.6
212805	9264	MB	P	3/4"	10	Less than or equal to 60	1	B	M	2/6/2023	2/6/2023	1	1	0.1554	0.1
212806	9264	MB	P	3/4"	676	Less than or equal to 60	2	B	M	6/26/2023	6/26/2023	1	1	0.1554	0.2
212807	9264	MB	P	1 1/2"	5	Less than or equal to 60	1	B	M	8/29/2023	9/30/2023	232	22	0.1554	20.2
212808	9264	MB	P	3/4"	947	Less than or equal to 60	2	B	M	3/21/2023	3/21/2023	1	1	0.1554	0.1
212809	9264	MB	P	1 1/2"	659	Less than or equal to 60	2	B	S	6/28/2023	7/12/2023	182	4	0.1554	12.0
212810	9264	MB	P	3/4"	732	Less than or equal to 60	1	B	M	3/20/2023	3/20/2023	1	1	0.1554	0.2
212811	9264	MB	P	1 1/4"	539	Less than or equal to 60	1	B	M	1/9/2023	1/9/2023	1	1	0.1554	0.1
212812	9264	MB	P	3/4"	367	Less than or equal to 60	2	B	M	7/31/2023	8/13/2023	235	24	0.1554	27.1
212813	9264	MB	P	3/4"	635	Less than or equal to 60	2	B	M	2/18/2023	2/18/2023	32	32	0.1554	16.6
212814	9264	MB	P	1 1/4"	79	Less than or equal to 60	2	B	M	7/30/2023	7/30/2023	3	1	0.1554	0.3
212815	9264	MB	P	3/4"	875	Less than or equal to 60	1	B	M	3/4/2023	3/4/2023	1	1	0.1554	0.1
212816	9264	MB	P	3/4"	189	Less than or equal to 60	2	B	M	11/8/2023	11/8/2023	9	9	0.1554	1.0
212817	9264	MB	P	2"	1139	Less than or equal to 60	2	B	M	4/12/2023	4/12/2023	117	11	0.1554	13.5
212818	9264	MB	P	3/4"	683	Less than or equal to 60	2	B	M	11/7/2023	11/4/2023	2	2	0.1554	0.2
212819	9264	MB	P	3/4"	995	Less than or equal to 60	2	B	M	12/28/2023	12/28/2023	1	1	0.1554	0.1
212820	9264	MB	P	1/2" CTS	111	Less than or equal to 60	1	B	S	3/29/2023	4/18/2023	108	21	0.1554	12.5
212821	9264	MB	P	3/4"	655	Less than or equal to 60	1	B	S	11/22/2023	11/22/2023	126	1	0.1554	17.6
212822	9264	MB	P	1 1/2"	839	Less than or equal to 60	2	B	M	3/25/2023	4/25/2023	1	1	0.1554	0.1
212823	9264	MB	P	3/4"	1138	Less than or equal to 60	1	B	M	6/24/2023	6/24/2023	1	1	0.1554	0.1
212824	9264	MB	P	3/4"	251	Less than or equal to 60	2	B	M	3/27/2023	3/27/2023	1	1	0.1554	0.1
212825	9264	MB	P	3/4"	863	Less than or equal to 60	2	B	M	5/23/2023	5/23/2023	1	1	0.1554	0.1
212826	9264	MB	P	1 1/4"	522	Less than or equal to 60	1	B	M	9/22/2023	9/22/2023	1	1	0.1554	0.1
212827	9264	MB	P	3/4"	875	Less than or equal to 60	2	B	M	7/13/2023	8/29/2023	241	48	0.1554	27.8
212828	9264	MB	P	3/4"	528	Less than or equal to 60	2	B	M	3/28/2023	5/20/2023	123	47	0.1554	14.2
212829	9264	MB	P	1/2" PS	539	Less than or equal to 60	1	B	M	11/27/2023	11/27/2023	311	1	0.1554	38.2
212830	9264	MB	P	1/2" CTS	515	Less than or equal to 60	1	B	M	9/14/2023	9/14/2023	1	1	0.1554	0.1
212831	9264	MB	P	1 1/2"	1188	Less than or equal to 60	2	B	S	8/14/2023	8/14/2023	187	1	0.1554	18.1
212832	9264	MB	P	3/4"	659	Less than or equal to 60	1	B	M	6/12/2023	6/12/2023	1	1	0.1554	0.1
212833	9264	MB	P	1 1/2"	827	Less than or equal to 60	2	B	M	3/26/2023	3/26/2023	1	1	0.1554	0.1
212834	9264	MB	P	3/4"	671	Less than or equal to 60	2	B	M	6/29/2023	7/11/2023	13	13	0.1554	1.5
212835	9264	MB	P	2"	1	Less than or equal to 60	1	B	M	3/23/2023	3/23/2023	1	1	0.1554	0.1
212836	9264	MB	P	1 1/4"	575	Less than or equal to 60	2	B	M	6/29/2023	6/29/2023	2	2	0.1554	0.2
212837	9264	MB	P	3/4"	575	Less than or equal to 60	2	B	S	4/3/2023	5/2/2023	122	30	0.1554	14.3
212838	9264	MB	P	3/4"	612	Less than or equal to 60	2	B	M	2/15/2023	2/15/2023	1	1	0.1554	1.8
212839	9264	MB	P	1 1/2"	1152	Less than or equal to 60	2	B	S	12/15/2023	12/15/2023	349	1	0.1554	40.3
212840	9264	MB	P	3/4"	45	Less than or equal to 60	1	B	M	11/2/2023	11/2/2023	1	1	0.1554	0.7
212841	9264	MB	P	3/4"	719	Less than or equal to 60	2	B	S	5/25/2023	7/30/2023	195	47	0.1554	22.0
212842	9264	MB	P	3/4"	355	Less than or equal to 60	2	B	S	5/9/2023	5/9/2023	142	14	0.1554	14.4
212843	9264	MB	P	2"	47	Less than or equal to 60	1	B	M	3/6/2023	3/6/2023	1	1	0.1554	0.1
212844	9264	MB	P	1 1/2"	779	Less than or equal to 60	1	B	M	12/24/2023	12/24/2023	1	1	0.1554	0.1
212845	9264	MB	P	2"	584	Less than or equal to 60	2	B	M	7/9/2023	7/9/2023	199	13	0.1554	21.0
212846	9264	MB	P	10"	76	Greater than 60	1	B	M	6/14/2023	6/14/2023	2	2	0.1554	0.2
212847	9264	MB	P	3"	71	Greater than 60	1	B	M	6/2/2023	6/2/2023	1	1	0.1554	0.1
212848	9264	MB	P	1 1/4"	55	Less than or equal to 60	1	B	M	2/19/2023	2/19/2023	1	1	0.1554	0.1
212849	9264	MB	P	1 1/4"	467	Less than or equal to 60	2	B	M	11/4/2023	11/4/2023	17	1	0.1554	1.1
212850	9264	MB	P	1/2" CTS	76	Less than or equal to 60	1	B	M	2/10/2023	2/10/2023	1	1	0.1554	0.1
212851	9264	MB	P	3/4"	1067	Less than or equal to 60	2	B	M	4/12/2023	4/12/2023	15	15	0.1554	15.6
212852	9264	MB	P	1 1/2"	1115	Less than or equal to 60	2	B	M	5/12/2023	6/9/2023	156	25	0.1554	18.0
212853	9264	MB	P	3/4"	863	Less than or equal to 60	2	B	M	7/6/2023	7/6/2023	147	14	0.1554	14.7
212854	9264	MB	P	2"	923	Less than or equal to 60	2	B	M	5/29/2023	6/9/2023	156	17	0.1554	18.0
212855	9264	MB	P	2"	479	Less than or equal to 60	1	B	M	3/7/2023	2/19/2023	1	1	0.1554	0.1
212856	9264	MB	P	3/4"	875	Less than or equal to 60	2	B	M	11/13/2023	11/13/2023	1	1	0.1554	0.1
212857	9264	MB	P	3/4"	823	Less than or equal to 60	2	B	M	10/25/2023	11/6/2023	13	13	0.1554	15.8
212858	9264	MB	P	3/4"	623	Less than or equal to 60	2	B	M	6/9/2023	6/9/2023	1	1	0.1554	0.2
212859	9264	MB	P	3/4"	371	Less than or equal to 60	2	B	S	3/9/2023	4/11/2023	102	34	0.1554	11.7
212860	9264	MB	P	1 1/2"	875	Less than or equal to 60	2	B	M	8/9/2023	8/9/2023	2	2	0.1554	0.2
212861	9264	MB	P	1/2" CTS	551	Less than or equal to 60	1	B	M	8/11/2023	8/11/2023	223	1	0.1554	25.7
212862	9264	MB	P	2"	583	Less than or equal to 60	2	B	M	11/7/2023	11/7/2023	1	1	0.1554	0.1
212863	9264	MB	P	1 1/2"	503	Less than or equal to 60	1	B	M	4/9/2023	4/9/2023	317	158	0.1554	38.4
212864	9264	MB	P	2"	503	Less than or equal to 60	2	B	M	3/13/2023	2/29/2023	2	2	0.1554	0.2
212865	9264	MB	P	1 1/4"	551	Less than or equal to 60	2	B	M	10/24/2023	10/24/2023	11	11	0.1554	11.0
212866	9264	MB	P	3/4"	827	Less than or equal to 60	2	B	M	3/27/2023	3/27/2023	11	11	0.1554	1.3
212867	9264	MB	P	3/4"	552	Less than or equal to 60	2	B	S	3/29/2023	3/29/2023	116	11	0.1554	11.6
212868	9264	MB	P	3/4"	791	Less than or equal to 60	2	B	M	9/22/2023	9/22/2023	1	1	0.1554	0.1
212869	9264	MB	P	2"	623	Less than or equal to 60	2	B	M	8/6/2023	9/26/2023	21	21	0.1554	20.9
212870	9264	MB	P	3/4"	959	Less than or equal to 60	2	B	M	4/24/2023	5/10/2023	17	17	0.1554	2.0
212871	9264	MB													

2005213	02339	DR	PC	3/4"	873	Less than or equal to 60	2	1	B	S	4/13/2023	5/12/2023	132	61	0.1554	15.2
2005707	02336	DR	PC	3/4"	1043	Less than or equal to 60	2	1	B	M	4/23/2023	4/23/2023	102	1	0.1554	1.8
2008357	02007	DR	PC	3/4"	887	Less than or equal to 60	2	1	B	M	4/24/2023	4/24/2023	1	1	0.1554	0.1
2010136	02045	DR	PC	3/4"	985	Less than or equal to 60	2	1	B	S	5/10/2023	5/10/2023	139	1	0.1554	16.0
2014207	02025	MR	P	1 1/4"	548	Less than or equal to 60	2	2	B	M	7/12/2023	8/9/2023	81	25	0.1554	21.8
2014028	02027	MR	PC	1 1/2"	188	Less than or equal to 60	2	1	B	M	7/26/2023	7/26/2023	206	20	0.1554	23.8
2015361	02026	MR	P	1 1/4"	911	Less than or equal to 60	1	1	B	M	7/24/2023	7/24/2023	1	1	0.1554	1
2001664	02064	DR	PC	3/4"	1007	Less than or equal to 60	1	1	B	M	1/25/2023	1/25/2023	1	1	0.1554	0.1
2005035	02110	DR	PC	3/4"	139	Less than or equal to 60	2	1	B	M	3/16/2023	3/16/2023	1	1	0.1554	0.1
2001367	02084	DR	PC	3/4"	875	Less than or equal to 60	2	1	B	M	3/11/2023	3/17/2023	17	17	0.1554	2.0
2014137	02059	DR	PC	3/4"	997	Less than or equal to 60	2	1	B	M	11/20/2023	11/20/2023	2	2	0.1554	0.2
2004540	02150	DR	PC	3/4"	815	Less than or equal to 60	2	1	B	S	3/10/2023	3/10/2023	79	18	0.1554	9.1
2013126	02027	DR	PC	3/4"	983	Less than or equal to 60	2	1	B	M	7/25/2023	8/10/2023	222	17	0.1554	29.6
2012287	02105	DR	PC	3/4"	1219	Less than or equal to 60	2	1	B	M	11/10/2023	11/10/2023	4	4	0.1554	0.5
2005547	02138	DR	PC	3/4"	1043	Less than or equal to 60	1	1	B	M	3/17/2023	3/17/2023	1	1	0.1554	0.1
2002969	02064	DR	P	1 1/4"	347	Less than or equal to 60	1	1	S	M	3/29/2023	3/29/2023	40	1	0.1554	4.6
2002776	02106	DR	PC	3/4"	863	Less than or equal to 60	2	1	B	M	11/24/2023	11/28/2023	11	11	0.1554	1.3
2011461	02115	DR	PC	3/4"	813	Less than or equal to 60	2	1	B	M	4/20/2023	4/20/2023	61	61	0.1554	20.7
2002783	02069	MR	P	1"	591	Less than or equal to 60	1	1	B	M	2/6/2023	2/7/2023	2	2	0.1554	0.2
2003464	02118	MR	PC	1 1/2"	1001	Less than or equal to 60	1	1	B	M	2/25/2023	2/25/2023	17	17	0.1554	0.1
2008380	02104	DR	PC	3/4"	1200	Less than or equal to 60	2	1	B	S	4/24/2023	5/4/2023	111	8	0.1554	14.0
2008409	02113	DR	PC	3/4"	988	Less than or equal to 60	2	1	B	M	4/24/2023	4/24/2023	1	1	0.1554	0.1
2002113	02064	DR	PC	3/4"	751	Less than or equal to 60	2	1	B	M	5/19/2023	12/10/2023	1	1	0.1554	0.2
2004135	02128	MR	P	2"	139	Less than or equal to 60	1	1	B	M	2/24/2023	2/25/2023	2	2	0.1554	0.2
2011277	02116	DR	PC	3/4"	139	Less than or equal to 60	2	1	B	S	4/6/2023	4/6/2023	146	100	0.1554	18.9
2012378	02136	DR	P	1 1/2" CTS	431	Less than or equal to 60	2	1	B	S	11/20/2023	11/20/2023	106	6	0.1554	15.3
2010958	02075	MR	PC	1 1/2"	599	Less than or equal to 60	2	1	B	M	11/16/2023	11/16/2023	100	14	0.1554	16.0
2010918	02025	DR	PC	1"	599	Less than or equal to 60	1	1	B	S	5/25/2023	5/25/2023	145	1	0.1554	16.7
2004600	02004	MR	P	2"	707	Less than or equal to 60	2	2	B	S	3/4/2023	3/4/2023	83	3	0.1554	7.3
2002448	02068	MR	P	1 1/2"	707	Less than or equal to 60	2	2	B	S	5/16/2023	5/16/2023	12	12	0.1554	1.4
2004844	02124	DR	P	1 1/2" CTS	511	Less than or equal to 60	2	1	B	M	3/7/2023	3/9/2023	2	2	0.1554	0.2
2002006	02009	DR	PC	3/4"	551	Less than or equal to 60	2	1	B	M	11/29/2023	11/29/2023	3	3	0.1554	0.3
2007608	02027	MR	P	2"	563	Less than or equal to 60	2	1	B	S	4/13/2023	4/13/2023	104	2	0.1554	12.0
2011382	02075	MR	PC	1 1/2"	899	Less than or equal to 60	2	1	B	S	4/10/2023	4/10/2023	104	2	0.1554	12.0
2002466	02064	DR	PC	1"	371	Less than or equal to 60	1	1	B	S	2/10/2023	2/10/2023	14	1	0.1554	1.9
2005161	02028	DR	PC	3/4"	827	Less than or equal to 60	2	1	B	M	8/17/2023	8/17/2023	1	1	0.1554	0.1
2012138	02110	DR	PC	3/4"	981	Less than or equal to 60	2	1	B	S	6/15/2023	8/6/2023	220	55	0.1554	25.4
2000662	02106	DR	PC	3/4"	883	Less than or equal to 60	1	1	B	S	11/23/2023	11/23/2023	2	2	0.1554	0.2
2007120	02115	DR	PC	3/4"	751	Less than or equal to 60	2	1	B	M	4/11/2023	4/11/2023	1	1	0.1554	0.1
2001452	02091	DR	P	1 1/2" CTS	239	Less than or equal to 60	1	1	B	S	2/25/2023	3/4/2023	73	28	0.1554	8.4
2012127	02090	MR	PC	1 1/2"	1019	Less than or equal to 60	1	1	B	M	4/11/2023	4/11/2023	38	4	0.1554	3.8
2003695	02071	DR	P	1"	18	Less than or equal to 60	1	1	B	M	2/18/2023	2/18/2023	1	1	0.1554	0.1
2012784	02071	DR	PC	3/4"	179	Less than or equal to 60	2	1	B	M	11/20/2023	11/20/2023	1	1	0.1554	0.1
2011807	02115	DR	PC	3/4"	87	Less than or equal to 60	2	1	B	S	4/2/2023	6/8/2023	177	25	0.1554	20.4
2012297	02075	MR	PC	1 1/2"	555	Less than or equal to 60	2	1	B	M	11/20/2023	11/20/2023	386	26	0.1554	36.6
2002643	02110	DR	PC	3/4"	883	Less than or equal to 60	2	1	B	M	10/13/2023	11/10/2023	4	4	0.1554	0.5
2000063	02077	MR	P	2"	611	Less than or equal to 60	1	1	B	M	10/10/2023	11/20/2023	1	1	0.1554	0.1
2002175	02064	DR	PC	3/4"	871	Less than or equal to 60	2	1	B	M	1/26/2023	4/18/2023	31	4	0.1554	3.6
2010316	02021	MR	PC	2"	743	Less than or equal to 60	2	1	B	S	5/17/2023	6/29/2023	180	44	0.1554	20.8
2010863	02101	MR	PC	2"	127	Less than or equal to 60	2	1	B	M	5/24/2023	5/24/2023	144	1	0.1554	14.4
2010824	02077	MR	PC	3/4"	839	Less than or equal to 60	1	1	B	M	10/10/2023	10/10/2023	1	1	0.1554	0.1
2012134	02127	MR	PC	2"	127	Less than or equal to 60	2	1	B	M	11/27/2023	11/27/2023	1	1	0.1554	0.1
2002540	02081	MR	P	1 1/4"	163	Less than or equal to 60	2	1	B	M	10/26/2023	11/9/2023	11	11	0.1554	1.3
2001895	02020	DR	PC	3/4"	876	Less than or equal to 60	1	1	B	M	12/14/2023	12/14/2023	1	1	0.1554	0.1
2001500	02103	MR	PC	1 1/2"	718	Less than or equal to 60	2	1	B	M	1/24/2023	1/24/2023	1	1	0.1554	0.1
2010770	02110	DR	PC	3/4"	556	Less than or equal to 60	2	1	B	S	5/23/2023	5/23/2023	143	1	0.1554	16.5
2014849	02081	MR	PC	2"	599	Less than or equal to 60	2	1	B	M	4/14/2023	4/14/2023	214	20	0.1554	25.4
2001387	02104	DR	PC	3/4"	123	Less than or equal to 60	1	1	B	M	1/29/2023	1/29/2023	1	1	0.1554	0.1
2010511	02021	DR	PC	3/4"	65	Less than or equal to 60	1	1	B	S	8/22/2023	8/22/2023	1	1	0.1554	0.1
2008992	02104	MR	PC	1 1/2"	827	Less than or equal to 60	2	1	B	M	5/12/2023	5/16/2023	16	16	0.1554	1.8
2010995	02021	DR	PC	3/4"	1151	Less than or equal to 60	2	1	B	M	8/27/2023	8/27/2023	1	1	0.1554	0.1
2005465	02017	DR	PC	3/4"	755	Less than or equal to 60	2	1	B	M	1/24/2023	1/24/2023	138	1	0.1554	19.0
2007923	02104	MR	PC	1 1/2"	971	Less than or equal to 60	2	1	B	S	4/18/2023	4/18/2023	118	11	0.1554	13.6
2006651	02109	MR	PC	1 1/4"	811	Less than or equal to 60	2	1	B	M	4/19/2023	4/19/2023	102	11	0.1554	11.0
2010880	02029	MR	P	2"	587	Less than or equal to 60	2	1	B	S	9/14/2023	9/26/2023	209	61	0.1554	23.0
2004625	02105	MR	PC	3/4"	887	Less than or equal to 60	2	1	B	M	3/5/2023	10/17/2023	27	27	0.1554	2.7
2002058	02101	DR	PC	3/4"	85	Less than or equal to 60	2	1	B	S	3/9/2023	4/11/2023	101	34	0.1554	11.7
2010420	02115	DR	PC	3/4"	827	Less than or equal to 60	2	1	B	M	9/7/2023	9/7/2023	14	14	0.1554	1.4
2011762	02105	MR	PC	1 1/2"	811	Less than or equal to 60	2	1	B	S	4/6/2023	6/6/2023	157	1	0.1554	18.1
2007227	02087	MR	PC	1 1/4"	599	Less than or equal to 60	2	1	B	M	4/10/2023	4/10/2023	188	1	0.1554	15.5
2001135	02115	MR	PC	2"	471	Less than or equal to 60	1	1	B	M	2/10/2023	2/10/2023	1	1	0.1554	0.1
2008408	02138	MR	PC	2"	419	Less than or equal to 60	2	1	B	M	4/24/2023	5/4/2023	11	11	0.1554	1.3
2001412	02128	MR	PC	3/4"	647	Less than or equal to 60	1	1	B	M	1/23/2023	1/23/2023	1	1	0.1554	0.1
2002490	02027	DR	PC	3/4"	635	Less than or equal to 60	2	1	B	M	11/28/2023	11/28/2023	2	2	0.1554	0.2
2002666	02064	MR	PC	3/4"	275	Less than or equal to 60	2	1	B	S	3/6/2023	3/6/2023	2	2	0.1554	0.2
2010842	02017	DR	PC	3/4"	851	Less than or equal to 60	2	1	B	M	9/14/2023	9/14/2023	264	8	0.1554	30.5
2010584	02115	DR	PC	3/4"	632	Less than or equal to 60	2	1	B	M	4/18/2023	4/18/2023	206	1	0.1554	21.6
2010229	02058	DR	PC	3/4"	871	Less than or equal to 60	2	1	B	S	11/9/2023	11/9/2023	314	73	0.1554	38.5
2007782	02128	MR	P	2"	139	Less than or equal to 60	2	1	B	S	5/11/2023	5/18/2023	138	1	0.1554	15.9
2010109	02145	DR	PC	3/4"	547	Less than or equal to 60	2	1	B	M	2/19/2023	2/19/2023	19	19	0.1554	2.2
2010250	02110	DR	PC	3/4"	751	Less than or equal to 60	2	1	B	S	8/9/2023	8/23/2023	235	15	0.1554	27.1
2010080	02101	MR	PC	2"	591	Less than or equal to 60	2	1	B	M	2/15/2023	2/15/2023	191			

SDG&E, July 1st, 2024

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno. In Response to Data Request, R15-01-008, 2024 June Report Appendix 4: Rev. 03/29/2024

Notes:

Definitions in Data Request R15-01-008, 2024 June Report

If highlighted cells are filled in, the other cells will auto-populate

The number of miles surveyed (Column C) should be the number of unique miles surveyed, and should not include any repeated miles surveyed multiple times per year.

To clarify the definition of O&M Leaks (Column O), the following criteria for O&M Leaks should be met: (1) occur stochastically across the whole territory, (2) are reported by customers, (3) found quickly after occurring, (4) found independently of survey activities but would have been found later by surveyors, and (5) considered a small number of leaks.

To clarify the definition of Survey Leaks (Column G), the following criteria for Survey Leaks should be met: (1) found from company employees or contractors actively searching for leaks (2) including, but not limited to, compliance survey leaks and non-compliance survey leaks (e.g. Super Emitter Programs, Aerial Methane Mapping, Corrosion Surveying.)

Summary of Data by Pipeline Facility/Material and Results for Annual System Leak Rate and Resulting Number of Unknown Leaks for Each Pipeline Facility/Material

Facility/Material	Total System Miles per material type	Miles on Annual Survey [M <sub>SA</sub> ]	Miles on Multi-Year Survey Cycles [M <sub>SM</sub> ]	Survey Interval (yrs) [I]	Miles Surveyed Annually from Multi-Year Survey Cycles [M <sub>AY</sub> ]	Total # of Leaks Detected from Survey [N <sub>SL</sub> ]	If using a 3-year trailing leak rate average then include - 2021 Annual Leak Rate [R <sub>SL1</sub> ]	If using a 3-year trailing leak rate average then include - 2022 Annual Leak Rate [R <sub>SL2</sub> ]	2023 Annual Leak Rate [R <sub>SL3</sub> ]	If applicable, then calculate the 3-year Average Leak Rate (Leak / Mile / Yr) $R_{SL} = \frac{1}{3} \sum_{i=1}^3 R_{SLi}$	# of Unknown Leaks $N_{SL,unk} = R_{SL} \times (M_{SA}^{int} - M_{SM}) \times \frac{1}{I}$	Total # of Leaks Detected from O&M* [N <sub>SL,O</sub> ]
Main/Vintage* Plastic	1,475	1,475	-	1	0	39	0.0257	0.0287	0.02645	0.02697	-	34
Main/Plastic	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA
Main/Plastic	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA
Main/Plastic	1,278	1,036	2,242	3	747	3	0.0003	0.00019	0.00092	0.00103	2,31	4
Main/Unprotected Steel	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA
Main/Unprotected Steel	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA
Main/Unprotected Steel	NA	NA	NA	5	NA	NA	N/A	NA	NA	NA	NA	NA
Main/Vintage* Protected Steel	442	442	-	1	0	40	0.1139	0.0870	0.09050	0.09713	-	9
Main/Protected Steel	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA
Main/Protected Steel	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA
Main/Protected Steel	3,118	1,096	2,022	3	674	42	0.0129	0.0265	0.01347	0.01765	35.69	60
Main/Unknown	NA	NA	NA	1	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Vintage* Plastic	1,230	1,230	-	1	0	31	0.0184	0.0313	0.02520	0.02495	-	26
Service/Plastic	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Plastic	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Plastic	3,078	868	2,210	3	737	7	0.0023	0.0026	0.00227	0.00242	5.35	14
Service/Unprotected Steel	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Unprotected Steel	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Unprotected Steel	NA	NA	NA	5	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Vintage* Protected Steel	277	277	-	1	0	31	0.2181	0.1517	0.11191	0.16059	-	30
Service/Protected Steel	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Protected Steel	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Protected Steel	2,529	1,089	1,439	3	480	80	0.0471	0.0789	0.03164	0.05253	75.60	128
Service/Copper	NA	NA	NA	3	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Copper	NA	NA	NA	4	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Unknown	NA	NA	NA	5	NA	NA	N/A	NA	NA	NA	NA	NA
Service/Copper	NA	NA	NA	NA	NA	NA	N/A	NA	NA	NA	NA	NA
<b>Total</b>	<b>15,426</b>	<b>7,513</b>	<b>7,913</b>	<b>N/A</b>	<b>2,638</b>	<b>273</b>				<b>N/A</b>	<b>119</b>	<b>305</b>

\* Definitions for "Vintage" materials:

Vintage Plastic	Pipe installed before 1986 + "unknown" manufacture PE pipe
Vintage Protected steel	Pipe Installed before 1950

Estimated Emissions by Pipeline Facility/Material for Each Leakage Category

Leakage Category	Emission Factor (Mscf/day/leak)	2023 Emissions from Leaks detected Prior to 2023 (Mscf)	2023 Emissions from Leaks Detected from 2023 Survey (Mscf)	2023 Emissions from O&M* Leaks Detected in 2023 (Mscf)	2023 Estimated Emissions from Unknown Leaks (Mscf)	Total Estimated 2023 Emissions from Distribution Pipelines (Mscf)
Main/Vintage* Plastic	0.1154	0	846	7	0	853
Main/Plastic	0.1154	NA	NA	NA	NA	NA
Main/Plastic	0.1154	NA	NA	NA	NA	NA
Main/Plastic	0.1154	0	56	1	97	155
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Vintage* Protected Steel	0.1154	0	787	10	0	796
Main/Protected Steel	0.1154	0	978	78	1,503	2,559
Main/Protected Steel	0.1154	NA	NA	NA	NA	NA
Main/Protected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unknown	0.1154	NA	NA	NA	NA	NA
Service/Vintage* Plastic	0.1154	0	679	30	0	709
Service/Plastic	0.1154	NA	NA	NA	NA	NA
Service/Plastic	0.1154	NA	NA	NA	NA	NA
Service/Plastic	0.1154	0	130	5	225	361
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Vintage* Protected Steel	0.1154	2	625	14	0	642
Service/Protected Steel	0.1154	NA	NA	NA	NA	NA
Service/Protected Steel	0.1154	NA	NA	NA	NA	NA
Service/Protected Steel	0.1154	0	1,737	84	3,184	5,004
Service/Copper	0.1154	NA	NA	NA	NA	NA
Service/Copper	0.1154	NA	NA	NA	NA	NA
Service/Copper	0.1154	NA	NA	NA	NA	NA
Service/Unknown	0.1154	NA	NA	NA	NA	NA
<b>Total</b>	<b>N/A</b>	<b>2</b>	<b>5,838</b>	<b>229</b>	<b>5,010</b>	<b>11,079</b>

O&M leaks include any other pipeline leaks that are discovered during the year from operations and maintenance activity, third party and gas odor reports, etc. that are not accounted for in other categories of this worksheet.

The cells below should be used for calculating emissions when a risk based leak detection and repair practice is used by the Utility. This table is intended to help categorize emissions associated with large leaks (Super Emitters (SEs)), and non-large leaks (non-SEs).

	2023 Emissions from Leaks detected Prior to 2023 (Mscf)	2023 Emissions from Leaks Detected from 2023 Survey (Mscf)	2023 Emissions from O&M* Leaks Detected in 2023 (Mscf)	2023 Estimated Emissions from Unknown Leaks (Mscf)	Total Estimated 2023 Emissions from Distribution Pipelines (Mscf)

Large Leak Emitter Program					
Compliance Leak Survey - Non-LL					-
Compliance Leak Survey - LL					-
Large Leak Emitter Program Outside Compliance Area - Non-LL					-
Large Leak Emitter Program Outside Compliance Area - LL					-
O&M - Non-LL					-
O&M - LL					-
<b>TOTAL</b>					

Please Provide the following:

	Total Count
The portion of the survey mileage that includes mileage that is surveyed multiple times per year. Repeated mileage will not be accounted for in the unknown leak calculation.	0

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Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008, 2024 June Report

Appendix 4; Rev. 03/29/2024

This summary purposefully should exclude damages, blowdowns, component emissions and component leaks.

	Count of Leaks Carried over from Prior Year	Count of Leaks Discovered in the Year of Interest	Count of Leaks Repaired in the Year of Interest	Average Days to Repair Leaks	Count of Estimated Unsurveyed Leaks in the Year of Interest	Count of Remaining Leaks at final day of the Year of Interest (12/31/23)	Emissions from Leaks Carried over from Prior Year.	Emissions from Leaks Discovered in the Year of Interest.	Emissions from Estimated Unsurveyed Leaks in the Year of Interest	Total Emissions in the Year of Interest [Mscf of Natural Gas]
Grade 1	-	182	182	1	NA	-	-	801	NA	801
Grade 2	2	395	391	20	NA	6	2	5,224	NA	5,226
Grade 3	-	1	-	-	NA	1	-	42	NA	42
<b>Graded Leak Total</b>	<b>2</b>	<b>578</b>	<b>573</b>	<b>NA</b>	<b>-</b>	<b>7</b>	<b>2</b>	<b>6,067</b>	<b>-</b>	<b>6,070</b>
Above Ground Hazardous	0	0	0	0	0	0	0	0	NA	-
Above Ground Non-Hazardous	0	0	0	0	0	0	0	0	NA	-
Above Ground Non-Hazardous Minor	0	0	0	0	0	0	0	0	NA	-
AG Total	-	-	-	-	-	-	-	-	-	-
<b>Total of All Leaks</b>	<b>2</b>	<b>578</b>	<b>573</b>	<b>NA</b>	<b>-</b>	<b>7</b>	<b>2</b>	<b>6,067</b>	<b>-</b>	<b>6,070</b>
Main/Plastic	0	7	7	7	2	0	0	57	97	155
Main Vintage Plastic	0	73	71	7	0	2	0	853	0	853
Main/Unprotected Steel	0	0	0	NA	NA	0	NA	NA	NA	-
Main/Protected Steel	0	102	100	16	36	2	0	1,056	1,503	2,559
Main Vintage Protected Steel	0	49	49	27	0	0	0	796	0	796
Main Unknown	0	0	0	-	NA	0	NA	NA	NA	-
Service/Plastic	0	21	21	6	5	0	0	135	225	361
Service Vintage Plastic	0	57	56	11	0	1	0	709	0	709
Service/Unprotected Steel	0	0	0	NA	NA	0	NA	NA	NA	-
Service Vintage Steel	2	61	62	22	0	1	2	640	0	642
Service/Protected Steel	0	208	207	12	76	1	0	1,821	3,184	5,004
Service Unknown	0	0	0	-	NA	0	NA	NA	NA	-
Service/Copper	0	0	0	-	NA	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>578</b>	<b>573</b>	<b>NA</b>	<b>119</b>	<b>7</b>	<b>2</b>	<b>6,067</b>	<b>5,010</b>	<b>11,079</b>

Large Leak or Super Emitter Program Categorization										
Compliance Leak Survey - Non-LL							0			0
Compliance Leak Survey - LL							0			0
Large Leak/Super Emitter Program Outside Compliance Area - Non-LL							0			0
Large Leak/Super Emitter Program Outside Compliance Area - LL							0			0
O&M - Non-LL							0			0
O&M - LL							0			0
<b>TOTAL</b>	<b>-</b>									
Change Due to LL/SE Program on 2023:	(2)	(578)	(573)	#VALUE!	(119)	(7)	(2)	(6,067)	(5,010)	(11,079)
% Change Due to LL/SE Program on 2023:	(100.0%)	(100.0%)	(100.0%)		(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)

This section added to the template for 2020 Reporting. Send any suggestions to improve this worksheet to Staff for consideration.

Rulemaking (R) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno. In Response to Data Request, R15-01-008, 2024 Rule Report Appendix 4. Rev. 03/20/24

Name: [Redacted]
Use a formula-derived value with the formula used in the Annual Estimates column. Do not use a copy and paste value.
At the end of Annual Estimates column, add a summation total in a bold font to a column total, and then highlight orange.

Table with columns: Distribution Main & Service Pipe Damage (3rd party dig, natural disasters, etc.), Geographic Location, Damage Type, Pipe Classification, Pipe Material, Pipe Size (Nominal), Pipe Age (Months), Pressure (psi), Leak Grade, Allow Ground or Below Ground, Discovery Date (MM/DD/YYYY), Repair Date (MM/DD/YYYY), Number of Dam Leaking, Emission Factor or Engineering Estimate (lbs/Mcf/yr), Annual Emissions (Mtc), and Explanatory Notes / Comments. The table contains numerous rows of data for various geographic locations and damage types, detailing pipe specifications and emission estimates.



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Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 2024 June Report

Appendix 4; Rev. 03/29/2024

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

**Distribution Main & Service Pipeline Blowdowns:**

ID	Geographic Location	Number of Blowdown Events	Pipe Size (nominal) (inches)	Length of Pipe (feet)	Pressure (psi)	Annual Emissions (Mscf)	Explanatory Notes / Comments
N/A	SDG&E Territory	256	N/A	N/A	N/A	0.69	Distribution Odor intensity Tests
N/A	SDG&E Territory	1	6"	36	320	0.18	ABANDONED HP MAIN PIPE
N/A	SDG&E Territory	1	1"	1708	55	0.05	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/4"	194	55	0.01	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/2"	4548	55	0.30	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	2"	12224	55	1.35	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3"	79	55	0.02	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	4"	1592	55	0.70	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	6"	284	55	0.29	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	10"	16	55	0.04	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1"	3	55	0.00	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/4"	9219	55	0.41	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	2"	169330	55	16.27	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3"	37190	55	7.93	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	4"	574	55	0.22	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	6"	218	55	0.18	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3/4"	40049	55	0.60	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1"	1502	55	0.04	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/4"	226	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/2"	143	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2"	80	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2 1/2"	315	55	0.05	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	4"	40	55	0.02	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1/2"	158860	55	0.78	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1"	6206	55	0.18	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/4"	4469	55	0.20	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2"	879	55	0.08	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	3"	863	55	0.18	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	4"	26	55	0.01	ABANDONED MP SERVICE PIPE
BD-23-2	SDG&E Territory	1	20"	32.21	400	0.00	Distribution blowdown
BD-23-4	SDG&E Territory	1	20"	5702.4	400	3.68	Distribution blowdown
BD-23-5	SDG&E Territory	1	20"	32	400	0.00	Distribution blowdown
BD-23-7	SDG&E Territory	1	12"	6864	60	2.02	Distribution blowdown
BD-23-10	SDG&E Territory	1	20"	32	400	0.00	Distribution blowdown
BD-23-12	SDG&E Territory	1	20"	52.8	400	0.00	Distribution blowdown
BD-23-26	SDG&E Territory	1	20"	8025.6	301	5.65	Distribution Blowdown
BD-23-17	SDG&E Territory	1	16"	1742.4	350	0.02	Distribution Blowdown
BD-23-24	SDG&E Territory	24	5' of 20" 24' of 24"	5' of 20" 24' of 24"	320	3.23	Distribution Blowdown
BD-23-25	SDG&E Territory	5	18	18	320	0.94	Distribution Blowdown
BD-23-8	SDG&E Territory	1	20	7,603	320	5.14	Distribution Blowdown
<b>Sum Total</b>						<b>51</b>	

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Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.  
In Response to Data Request, R15-01-008 2024 June Report  
Appendix 4; Rev. 03/29/2024

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

The emissions captured on this tab represent the emissions associated with the operational design and function of the component. Any intentional release of natural gas for safety or maintenance purposes should be included on the Blowdowns worksheet.

**Distribution Main & Service Pipeline Component Vented Emissions (see note above):**

Total Number of Devices	Device Type	Bleed Rate	Manufacturer	Engineering or Manufacturer's based Estimate of Emissions	Annual Emissions (Mscf)	Explanatory Notes / Comments
Sum Total					0	

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Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

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Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

The emissions captured on this tab represent the emissions associated unintentional leaks that if repaired would not leaking. If the component is releasing gas or "bleeding" as a result of its design or function then it is not to be

**Distribution Main & Service Pipeline Component Fugitive Leaks (see note above):**

Total Number of Devices	Device Type	Bleed Rate	Manufacturer	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Number of Days Leaking	Emission Factor (Mscf/day)	Annual Emission (Mscf)	Explanatory Notes / Comments
<b>Sum Total</b>								<b>0</b>	

Appendix 4; Rev. 03/29/2024

Header column "Comment" boxes displayed below for reference.	
Column Heading	Description and Definition of Required Contents (IF not self-explanatory)
<b>Pipeline Leaks</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent
<b>Pipe Classification</b>	MA = distribution main, above ground MB = distribution main, below ground DA = distribution service, above ground DB = distribution service, below ground
<b>Pipe Material</b>	C = copper CI = cast iron P = plastics (Acetyl, ABS, PE, PVC, etc.) PB = cathodically protected steel, bare PC = cathodically protected steel, coated UB = unprotected steel, bare UC = unprotected steel, coated
<b>Pipe Size (nominal)</b>	
<b>Pipe Age (months)</b>	
<b>Pressure (psi)</b>	MOP = maximum operating pressure over the past year
<b>Leak Grade</b>	If the utility uses grades for above ground leaks, it is unnecessary to use the AH,AN, or AM designations.  1 = grade 1 2 = grade 2 2+ = grade 2+ 3 = grade 3 AH = Above Ground Hazardous synonymous with Grade 1. AN = Above Ground Non-Hazardous, synonymous with Grade 2 and 2+. AM = Above Ground Non-Hazardous Minor (akin to grade 3 below ground leak). N = non-graded or ungraded
<b>Upgraded Leak Grade or Downgraded Leak Grade</b>	U: Upgraded Leak such as a grade 2 or 3 leak that was surveyed again and changed designation to grade 1 or 2.  D: downgraded leak, such as a grade 1 or 2 leak that was surveyed again and changed designation to grade 2 or 3.
<b>Above Ground or Below Ground</b>	A = Above Ground B = below ground

<b>Leak Discovery Method</b>	<p>S = Routine Leak Survey (This discovery method should be parsed and the emissions summarized into leaks carried over from before 2016, and those detected in 2016. The totals for these subcategories should be carried over to column C43 through D63 on the Unsurveyed Pipeline Leaks tab.)</p> <p>M = O&amp;M (E.G. O&amp;M Activities, Third party reports, customer odor reports etc.)</p> <p>O = Other (This will be grouped with M in the summary categorization of leaks.)</p>
<b>Discovery Date (MM/DD/YY)</b>	
<b>Re-Grade Date (MM/DD/YY)</b>	
<b>Repair Date (MM/DD/YY)</b>	Date that the pipeline repair stopped the leak. Any associated blowdowns resulting from the repair should be included in the blowdowns tab.
<b>Scheduled Repair Date (MM/DD/YY)</b>	<p>If leak is open, specify the scheduled date of repair;</p> <p>Otherwise type "M," signifying that the leak is being monitored with no scheduled date of repair;</p> <p>Then, provide the reason for not scheduling a repair in Column P.</p>
<b>Reason for Not Scheduling a Repair</b>	If Repair Date is blank, and Scheduled Repair Date (Column O) = "M", then provide the reason for not scheduling a repair.
<b>Number of Days Leaking</b>	<p>If the leak was discovered by survey in the year of interest, then assume leaking from January 1st of subject year <u>thru</u> repair date or December 31st of subject year, whichever is earlier. (E.G. Days Leaking = Repair - Jan 1st + 1 day.)</p> <p>(For days leaking for leaks carried over use January 1st as start date for emissions calculations.)</p> <p>For O&amp;M discovered leaks, assume that the leak begins with the discovery date <u>thru</u> repair date or December 31st of subject year, whichever is earlier.</p>
<b>Number of Days to Repair</b>	<p>Use only Repair-Discovery +1. Do not use January 1st for time to repair.</p> <p>For regraded leaks, use Repair Date - Regrade Date +1.</p>
<b>Emission Factor (Mscf/Day)</b>	
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	
<b>Unknown Leaks</b>	
<b>Facility/Material</b>	
<b>Total System Miles per material type</b>	
<b>Miles on Annual Survey [M<sub>x,A</sub>]</b>	

Miles on Multi-Year Survey Cycles [ $M_x^{Tot}$ ]	
Survey Interval (yrs) [ $I$ ]	
Miles Surveyed Annually from Multi-Year Survey Cycles [ $M_{x,I}$ ]	
Total # of Leaks Detected from Survey [ $N_{x,L}$ ]	
If using a 3-year trailing leak rate average then include - 2019 Annual Leak Rate  [ $R_{x,1}$ ]	
If using a 3-year trailing leak rate average then include - 2020 Annual Leak Rate  [ $R_{x,2}$ ]	
2022 Annual Leak Rate [ $R_{x,3}$ ]	$R_{x,3} = \frac{N_{x,L}}{M_{x,A} + (I \times M_{x,I})}$
If applicable, then calculate the 3-year Average Leak Rate [Leaks / Mile / Yr]	$\bar{R}_x = \frac{1}{3} \sum_{i=1}^3 R_{x,i}$
# of Unknown Leaks	$N_{x,unk} = \bar{R}_x \times (M_x^{Tot} - M_{x,I}) \times \frac{I}{2}$
Total # of Leaks Detected from O&M* [ $N_{x,O}$ ]	
<b>Pipeline Leaks Summary</b>	
Count of Leaks Carried over from Prior Year	Based on a leak start date prior to the first day of the year of interest.
Count of Leaks Discovered in the Year of Interest	The total number of leaks by grade or category discovered in the year of interest.  If a leak is downgraded to not leaking, do not count it.
Count of Leaks Repaired in the Year of Interest	

<b>Average Days to Repair Leaks</b>	The average days to repair leaks should be baase on the formula: (Repair Date/Time minus Discovery Date/Time) plus (one day, unless using a discrete time stamp for leak repairs), then take the sum and divide by number of leaks repaired by grade to get the average days to repair.
<b>Count of Estimated Unsurveyed Leaks in the Year of Interest</b>	For leaks identified in Unsurveyed areas extrapolate the proportion of leak counts by grade that were found in the respective areas based on the year or periods used to estimate the unsurveyed leak count.  If the unsurveyed leak count was based on the current year leak count by grade detected then use the current proportion of graded leak count applied to the unsurveyed leaks.
<b>Count of Remaining Leaks at final day of the Year of Interest (12/31/xx)</b>	This count is only of the actual leaks detected in the operator's system that have not been repaired as of 12/31 of the year of interest.
<b>Emissions from Leaks Carried over from Prior Year.</b>	Based on a leak start date prior to the first day of the year of interest.  This includes leaks discovered through O&M and survey activities.
<b>Emissions from Leaks Discovered in the Year of Interest.</b>	The total number of leaks by grade or category discovered in the year of interest.  This includes leaks discovered through O&M and survey activities.
<b>Emissions from Estimated Unsurveyed Leaks in the Year of Interest</b>	The emissions by grade would be on the same basis that used to extrapolate the count of leaks in the unsurveyed areas. For example: For leaks identified in Unsurveyed areas extrapolate the proportion of leak emissions by grade that were found in the respective areas based on the year or periods used to estimate the unsurveyed leak count.  If the unsurveyed leak count was based on the current year leaks detected then use the current proportion of graded leaks applied to the unsurveyed leak emissions.
<b>Total Emissions in the Year of Interest [Mscf of Natural Gas]</b>	
<b>All Damages</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent
<b>Damage Type</b>	E = excavation damage N = natural force damage O = other outside force damage
<b>Pipe Classification</b>	MA = distriibution main, above ground MB = distriibution main, below ground DA = distribution service, above ground DB = distribution service, below ground

<b>Pipe Material</b>	C = copper CI = cast iron P = plastics (Acetal, ABS, PE, PVC, etc.) PB = cathodically protected steel, bare PC = cathodically protected steel, coated UB = unprotected steel, bare UC = unptotected steel, coated
<b>Pipe Size (nominal)</b>	
<b>Pipe Age (months)</b>	
<b>Pressure (psi)</b>	MOP = maximum operating pressure over the past year
<b>Leak Grade</b>	1 = grade 1 2 = grade 2 2+ = grade 2+ 3 = grade 3 N = Non-Graded
<b>Above Ground or Below Ground</b>	AH = above ground, hazardous AN = above ground, non-hazardous B = below ground
<b>Discovery Date (MM/DD/YY)</b>	
<b>Repair Date (MM/DD/YY)</b>	
<b>Number of Days Leaking</b>	<p>If date and time stamp are reliable and used consistently by respondent, then emissions may be calculated based on actual time leaking. E.G. Repair time - damage event time = duration of event.</p> <p>If respondent has average or historical leak duration based on the nature and circumstances of damages, then these may be applied to like damage events. The emissions factors should be adequately supported and explained in the filing.</p> <p>If actual time stamps and historical averages are not available, then whole days should be used in the engineering calculation. The leak begins with the damage event date thru repair date or December 31st of subject year, whichever is later. E.G. Days Leaking = Repair date - date of damage + 1 day.</p>
<b>Emission Factor or Engineering Estimate (Mscf/Day)</b>	
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	
<b>Blowdowns</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent

<b>Number of Blowdown Events</b>	If counting a series of small blowdowns associated with services such as MSA replacement, or Service pipe of small diameter or section length then enter total and the formula in the explanation column.
<b>Pipe Size (nominal)</b>	
<b>Length of Pipe</b>	
<b>Pressure (psi)</b>	MOP = maximum operating pressure over the past year
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	
<b>Component Vented Emissions</b>	
<b>Total Number of Devices</b>	
<b>Device Type</b>	P = pneumatic device H = hydraulic valve operator T = turbine valve operator PR = pressure relief valve O = other devices
<b>Bleed Rate</b>	L = low bleed I = intermittent bleed H = high bleed NA = not applicable
<b>Manufacturer</b>	
<b>Engineering or Manufacturer's based Estimate of Emissions</b>	
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	
<b>Component Fugitive Leaks</b>	
<b>Total Number of Devices</b>	
<b>Device Type</b>	P = pneumatic device H = hydraulic valve operator T = turbine valve operator PR = pressure relief valve O = other devices
<b>Bleed Rate</b>	L = low bleed I = intermittent bleed H = high bleed NA = not applicable
<b>Manufacturer</b>	
<b>Discovery Date (MM/DD/YY)</b>	List the actual discovery date.  If the leak was discovered in the year of interest, then we will assume the component was leaking from the beginning of the year for emissions reporting purposes.

<b>Repair Date (MM/DD/YY)</b>	Date that the component repair stopped the leak. Any associated blowdowns as a result of the repair should be included in the blowdowns tab.
<b>Number of Days Leaking</b>	Assume Leaking from January 1 of subject year or prior survey date, whichever is later, thru the repair date (if repaired in year of interest) or December 31 of subject year, whichever is earlier.  For O&M discovered leaks, assume that the leak begins with the discovery date <u>thru</u> repair date or December 31st of subject year, whichever is earlier.
<b>Emission Factor (Mscf/day)</b>	
<b>Annual Emission (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	