



Lodi Gas Storage, L.L.C.
A Rockpoint Gas Storage Company
PO Box 230, Acampo CA 95220-0230
T 209.36839277 F 209.368.9276
rockpointgs.com

June 15, 2022

Ms. Emma Johnston
Safety Policy Division
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Emma.Johnston@cpuc.ca.gov

VIA ELECTRONIC MAIL

RE: Lodi Gas Storage, L.L.C.
R15-01-008 2022 Annual Report

Dear Ms. Johnston:

Lodi Gas Storage, L.L.C. (LGS) respectfully submits this 2022 Annual Report to the California Public Utilities Commission (CPUC) pursuant to R15-01-008. The attached 2022 Annual Report is comprised of this cover letter and the following documents:

- Supplemental Questionnaire R.15-01-008 2022 Annual Report
- Appendix 1 – Transmission Pipelines
- Appendix 7 – Underground Storage
- Appendix 8 – Summary Tables

If you have any questions, or require more information, please contact me at greg.clark@rockpointgs.com or at (209) 368-9277 x21.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Greg N. Clark', with a stylized flourish at the end.

Gregory N. Clark
Compliance Manager

Enclosures (Supplemental Questionnaire, Appendix 1, Appendix 7, Appendix 8)

cc: File #S3.03
A. Mrowka (Andrew.Mrowka@arb.ca.gov)
A. Anderson, J. Dubchak, M. Fournier (via e-mail)

SUPPLEMENTAL QUESTIONNAIRE

R.15-01-008 2022 Annual Report

Lodi Gas Storage, L.L.C.

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 partial fulfillment of 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 2022 Annual Report

Date: 6/15/22

The following data have been prepared to comply with Senate Bill 1371 (Leno, 2014), Section 2, Article 3, Order Instituting Rulemaking (OIR) 15-01-008, and to provide responses to Data Request R. 15-01-008 2022 Annual Report.

- 1. A summary of changes to utility leak and emission management practices from January 1, 2021 to December 31, 2021. The report must include a detailed summary of changes, including the reasoning behind each change and an explanation of how each change will reduce methane leaks and emissions.**

Response:

Various work was performed by Lodi Gas Storage, L.L.C. (LGS) during the 2021 Calendar Year, with the intent of minimizing methane emissions to the environment. LGS continued implementing best practices that were already in place and made efforts to further enhance this initiative.

Implementation of SB 1371 Best Practices is fully described in the 2022 Methane Leak Abatement Compliance Plan, submitted to CPUC in March 2022. The SB 1371 Best Practice's that impacted methane emissions reduction during 2020 and 2021 are as follows:

- BP #1 - Compliance Plan – General impact on reduction. Operations group greater awareness of importance to minimize methane release to atmosphere.
- BP #2 - Methane Potent GHG Policy – General impact on reduction. Operations group greater awareness of importance to minimize methane release to atmosphere.
- BP #3 - Pressure Reduction Policy or Procedure – Operations have attempted to reduce pressure as much as possible before blowing down piping/equipment.
- BP #4 - Scheduling Projects Policy or Procedure – Operations have minimized gas release by running equipment longer before requiring blowdown.
- BP #5 - Methane Evacuation Implementation Procedures – Operations are more consistent with methane evacuation process, having procedures in place.
- BP #7 - Bundling Work Policy – More effort being made to bundle work activities, delaying blowdown, and reducing overall methane volume released.
- BP #9 – Recordkeeping – More detailed record keeping by operations has resulted in greater accuracy for CARB annual reporting and reduction of assumptions.
- BP #10 - Minimize Uncontrolled Methane Emissions Training – Operations are trained to quickly and efficiently respond to uncontrolled releases.

- BP #11 - Methane Emissions Reductions Policies Training – General impact on reduction. Operations group greater awareness of importance to minimize methane release to atmosphere.
- BP #12 - Knowledge Continuity Training Programs – Staff became directly involved with blowdown of piping/equipment and LDAR during 2019.
- BP #23 - Minimize Fugitive & Vented Methane Emissions – Greater overall effort by operations to proactively inspect equipment for leaks and minimize the amount of volume blown down.

2. A list of new graded and ungraded gas leaks discovered, tracked by geographic location in a Geographic Information System (GIS) or best equivalent, by grade, component or equipment, pipe size, schedule and material, pressure, age, date discovered and annual volume of gas leaked for each, by month, from January 1, 2021 through December 31, 2021.

Response:

See Appendices

3. **A list of graded and ungraded gas leaks repaired, tracked by geographic location in a Geographic Information System (GIS) or best equivalent, by month, from January 1, 2021 through December 31, 2021. Include the grade, component or equipment, pipe size, schedule and material, pressure, age, date discovered, date of repair, annual volume of gas leaked for each and the number of days from the time the leak was discovered until the date of repair.**

Response:

See Appendices

4. A list of ALL open graded and ungraded leaks, regardless of when they were found, tracked by geographic location in a Geographic Information System (GIS) or best equivalent that are being monitored, or are scheduled to be repaired, by month, from January 1, 2021 through December 31, 2021. Include the grade, component or equipment, pipe size, schedule and material, pressure, age, date discovered, scheduled date of repair, and annual volume of gas leaked for each.

Response:

See Appendices

5. **System-wide gas leak and emission rate data, along with any data and computer models used in making that calculation, for the 12 months from January 1, 2021 through December 31, 2021.**

Response:

See Appendices

6. **Calculable or estimated emissions and non-graded gas leaks, as defined in Data Request [Company Name] R15-01-008 2018 Annual Report for the 12 months from January 1, 2021 through December 31, 2021.**

Response:

See Appendices

Lodi Gas Storage, L.L.C., June 15, 2022

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 - 2022 June Report

Appendix 1 - Rev. 03/30/22

Notes:

Emissions included in the Report are based on miles of transmission pipeline. Therefore provide the miles of transmission pipeline in your system here.

The following data on transmission pipeline leaks is **for information purposes** and will not be used to report transmission pipeline leak emissions this year.

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.

Transmission Pipeline Leaks:															
ID	Geographic Location	Pipe Material	Pipe Size (nominal)	Pipe Age (months)	Pressure (psi)	Leak Grade	Above Ground or Below Ground	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Scheduled Repair Date (MM/DD/YY)	Reason for Not Scheduling a Repair	Number of Days Leaking	Emission Factor (Mscf/Day)	Annual Emissions (Mscf)	Explanatory Notes / Comments
No transmission leaks in 2021															
Sum total													0		

Lodi Gas Storage, L.L.C., June 15, 2022

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 - 2022 June Report
Appendix 1 - Rev. 03/30/22

Notes:
Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.
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Transmission Pipeline Damage (3rd party dig-ins, natural disasters, etc.):

ID	Geographic Location	Damage Type	Pipe Material	Pipe Size (nominal)	Pipe Age (months)	Pressure (psi)	Leak Grade	Above Ground or Below Ground	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Number of Days Leaking	Emission Factor (Mscf/Day)	Annual Emissions (Mscf)	Explanatory Notes / Comments
No 3rd party damage emissions in 2021														

Sum total 0

Lodi Gas Storage, L.L.C., June 15, 2022

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In Response to Data Request, R15-01-008 - 2022 June Report

Appendix 1 - Rev. 03/30/22

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.

Transmission Pipeline Blowdowns:

ID	Geographic Location	Number of Blowdown Events	Annual Emissions (Mscf)	Explanatory Notes / Comments
1	95220	9	4.69	Preventive maintenance on meter runs
2	94585	5	0.26	

Sum total

4.95

Lodi Gas Storage, L.L.C., June 15, 2022

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 2022 June Report Appendix 1 - Rev. 03/30/22

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 in the Blowdowns worksheet.

Transmission Pipeline Component Vented Emissions:

Total Number of Devices	Device Type	Bleed Rate	Manufacturer	Emission Factor (Mscf/day)	Annual Emission (Mscf)	Explanatory Notes / Comments
N/A						No component vented emissions in 2021

Sum total 0

Lodi Gas Storage, L.L.C., June 15, 2022

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In Response to Data Request, R15-01-008 2022 June Report

Appendix 1 - Rev. 03/30/22

Notes:

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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 captured in this tab.

Transmission Pipeline Component Fugitive Leaks:

ID	Geographic Location	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
N/A										No component leak emissions in 2021

Sum total 0

Lodi Gas Storage, L.L.C., June 15, 2022

**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 2022 June Report

Appendix 1 - Rev. 03/30/22

Notes:

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

Transmission Pipeline Odorizers:

ID	Geographic Location	Number of Units	Emission Factor (Mscf/yr)	Annual Emission (Mscf)	Explanatory Notes / Comments
N/A					No odorizer emissions in 2021

Sum total

0

Lodi Gas Storage, L.L.C., June 15, 2022

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 2022 June Report
Appendix 7; Rev. 03/30/22

Notes:

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

Use the Population based emission factor if facility is not surveyed. Use Leaker based emission factor if facility is surveyed, and report only the found leaking components.

Underground Storage Facility Leaks and Emissions:

[illegible]

Lodi Gas Storage, L.L.C., June 15, 2022
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, Lemo.
In Response to Data Request, R.15-01-008 2021 June Report
Appendix 7: Rev. 03/30/21

Note:
Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-on 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 compressor. Any intentional release of natural gas for safety or maintenance purposes should be included on the Blowdown worksheet.

- Previous Reporting Changes:
- 1) New Column for Measurement Frequency - See box comments.
 - 2) Added new column for Emission Factor Measurement Date - Pressurized Operations.
 - 3) Added a fourth compressor operating mode "Offline" in addition, a measurement of emissions (EF) should be taken during Offline mode, to ensure that no emissions are emanating from the system.
 - 4) Alternate emission measurement method, where applicable and measured by the operator.
 - 5) Alternate emission measurement method, where applicable and measured by the operator.
 - Blowdown and Isolation values
 - 6) Measure centrifugal compressor emissions additional columns added for these emissions:
 - Dry seal
 - Wet seal
 - Wet seal oil degassing vents in Pressurized life mode

Transmission Compressor Vented Emissions:

ID	Geographic Location	Compressor Type	Prime Mover	Number of Cylinders	Number of Stems	Seal Type	Measurement Frequency	Emission Factor Measurement Date - Pressurized Operations	Operating Mode: Pressurized Operating (Hours)	Operating Mode: Pressurized Life (Hours)	Operating Mode: Degradation Life (Hours)	Operating Mode: Offline (Hours)	Emission Factor: Pressurized Operating (lb/ft ³)	Emission Factor: Pressurized Life (lb/ft ³)	Emission Factor: Degradation Life (lb/ft ³)	Emission Factor: Offline (lb/ft ³)	Emission Factor: Pressurized Operating Red Packing (lb/ft ³)	Emission Factor: Pressurized Operating Wet Seal Oil Degassing Vents (lb/ft ³)	Emission Factor: Pressurized Operating New Seal (lb/ft ³)	Emission Factor: Pressurized Operating Dry Seal (lb/ft ³)	Emission Factor: Pressurized Life Red Packing (lb/ft ³)	Emission Factor: Pressurized Life Wet Seal Oil Degassing Vents (lb/ft ³)	Emission Factor: Pressurized Life New Seal (lb/ft ³)	Emission Factor: Pressurized Life Dry Seal (lb/ft ³)	Emission Factor: Pressurized Life Isolation Value (lb/ft ³)	Annual Emissions (lb/ft ³)	Explanatory Notes / Comments	
1000	94085	R	C	4	4	W	A	12/28/2020	3861	7262	8	N/A	239.4	0.0	0.0	N/A	239.4	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	876.44	
2000	94085	R	C	4	4	W	A	12/28/2020	3181	7097	15.2	N/A	239.4	0.0	0.0	N/A	239.4	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	830.41	
3000	94085	R	C	4	4	W	A	12/28/2020	2353	5721	1207	N/A	204.6	0.0	0.0	N/A	204.6	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	522.34	
4000	94085	R	C	6	6	W	A	12/28/2020	3185	6254	29	N/A	204.6	0.0	0.0	N/A	204.6	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	651.65	

Sum Total: 2,859.85

Lodi Gas Storage, L.L.C., June 15, 2022

**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 2022 June Report

Appendix 7; Rev. 03/30/22

Notes:

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

Underground Storage Blowdowns:

ID	Geographic Location	Source	Compressor Type	Number of Blowdown Events	Annual Emissions (Mscf)	Explanatory Notes / Comments
1000	94585 C	R		2	17.41	Preventive maintenance, Blowdown to fix LDAR leaks
2000	94585 C	R		1	5.09	Preventive maintenance, Blowdown to fix LDAR leaks
3000	94585 C	R		4	75.68	Preventive maintenance, Blowdown to fix LDAR leaks
4000	94585 C	R		4	66.59	Preventive maintenance, Blowdown to fix LDAR leaks
				Sum Total	164.77	

Lodi Gas Storage, L.L.C., June 15, 2022

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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Appendix 7; Rev. 03/30/22

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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.

Underground Storage Component Vented Emissions (See note above):

ID	Geographic Location	Device Type	Bleed Rate	Manufacturer	Pressure (psi)	Survey Date (MM/DD/YY)	Number of Days Emitting	Emission Factor, Engineering or Manufacturer's based Estimate of Emissions (Mscf/day)	Annual Emissions (Mscf)	Explanatory Notes / Comments
N/A										Quarterly LDAR conducted in 2021. Component leak emissions captured on Compressor & Component Leaks worksheet.

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.

Appendix 7; Rev. 03/30/22

Notes:

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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 captured in this tab.

										12/31/2021	1/1/2021		
ID	Geographic Location	Device Type	Bleed Rate	Manufacturer	Pressure (psi)	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Prior Survey Date (MM/DD/YY)	Number of Days Leaking	Emission Factor or Engineering Estimate (Mscf/day)	Emissions (Mscf)	Explanatory Notes / Comments	
LDAR Q1	95220 C	NA	varies		1419	03/11/21	03/12/21	12/21/20	42	0.1342	11.2728	Includes 2 components	
LDAR Q1	94585 C	NA	varies		1332	03/15/21	03/16/21	12/21/20	44	0.1342	5.9048	Includes 1 component	
LDAR Q1	94585 V	NA	varies		1332	03/15/21	03/16/21	12/21/20	44	0.3562	78.364	Includes 5 components	
LDAR Q2	95220 C	NA	varies		1419	05/21/21	05/27/21	03/11/21	43	0.1342	17.1105	Includes 3 components	
LDAR Q2	95220 V	NA	varies		1419	05/21/21	06/01/21	03/11/21	48	0.3562	16.9195	Includes 1 component	
LDAR Q2	94585 C	NA	varies		1332	05/24/21	05/28/21	03/15/21	40	0.1342	10.736	Includes 2 components	
LDAR Q2	94585 V	NA	varies		1332	05/24/21	05/28/21	03/15/21	40	0.3562	56.992	Includes 4 components	
												Includes 1 component, Delay of Repair, leak not repaired by year end	
LDAR Q2	94585 V	NA	varies		1332	05/24/21	12/31/21	03/15/21	257	0.3562	91.5434		
LDAR Q3	95220 C	NA	varies		1419	08/17/21	08/26/21	05/21/21	54	0.1342	43.4808	Includes 6 components	
LDAR Q3	95220 V	NA	varies		1419	08/19/21	08/26/21	05/21/21	53	0.3562	18.8786	Includes 1 component	
												Includes 1 component, Delay of Repair, leak not repaired by year end	
LDAR Q3	95220 V	NA	varies		1419	08/18/21	12/31/21	05/21/21	181	0.3562	64.2941		
LDAR Q3	94585 C	NA	varies		1332	08/20/21	08/31/21	05/24/21	56	0.1342	22.5456	Includes 3 components	
LDAR Q3	94585 V	NA	varies		1332	08/19/21	08/31/21	05/24/21	57	0.3562	80.5012	Includes 4 components	
LDAR Q4	95220 C	NA	varies		1419	11/30/21	11/30/21	08/17/21	54	0.1342	7.1797	Includes 1 component	
LDAR Q4	95220 V	NA	varies		1419	11/29/21	12/10/21	08/17/21	64	0.3562	22.7968	Includes 1 component	
LDAR Q4	94585 C	NA	varies		1332	12/02/21	12/02/21	08/19/21	54	0.1342	21.5391	Includes 3 components	
LDAR Q4	94585 V	NA	varies		1332	12/01/21	12/03/21	08/19/21	55	0.3562	58.773	Includes 3 components	
Sum Total											628.83		

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.

Pursuant to SB 1371, Leno - Natural gas: leakage abatement, the California Public Utilities Commission (CPUC) requests that the following information be transmitted to the CPUC and the California Air Resources Board (CARB):
Note - Definitions in Data Request, R15-01-008 2022 June Report

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

[illegible]

Lodi Gas Storage, L.L.C., June 15, 2022
 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 2022 June Report
 Appendix 8; Rev. 03/30/22

Notes:
 Please round all natural gas emissions to nearest Mscf.

Summary Tables:

System Categories	Emission Source Categories	Fugitive or Vented	For Reference Only: Original 2015 Baseline Emissions (Mscf)	2015 Proposed Adjusted Baseline Emissions (Mscf)	2020 Total Annual Volume of Leaks & Emissions (Mscf)	2020 Total Annual Count of Leak & Emission Items	2021 Total Annual Volume of Leaks & Emissions (Mscf)	2021 Total Annual Count of Leak & Emission Items	Emission Change for Year Over Year Comparison from 2020 to 2021 (Mscf)	Percentage Change for Year Over Year Comparison from 2020 to 2021	Count Change for Year Over Year Comparison from 2020 to 2021	Percentage Change for Year Over Year Comparison from 2020 to 2021	Emission Change for Year Over Year Comparison from 2015 to 2021 (Mscf)	Percentage Change for Year Over Year Comparison from 2015 to 2021	Explanation for Significant Percentage Change for Year Over Year Comparison from 2020 to 2021
Transmission Pipelines	Pipeline Leaks	Fugitive	126						-	#DIV/0!	-	#DIV/0!	-126	(100.0%)	
	All Damages	Fugitive							-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Blowdowns	Vented	87		2		5		3	150.0%	-	#DIV/0!	-82	(94.3%)	Increased preventive maintenance blowdowns in 2021.
	Component Emissions	Vented							-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Component Leaks	Fugitive							-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
Transmission M&R Stations	Odorizers	Vented							-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Station Leaks & Emissions	Fugitive							-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Blowdowns	Vented							-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
Transmission Compressor Stations	Compressor Emissions	Vented							-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	
	Compressor Leaks	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Blowdowns	Vented							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Emissions	Vented							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Leaks	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Distribution Main & Service Pipelines	Storage Tank Leaks & Emissions	Vented							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Pipeline Leaks	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	All Damages	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Blowdowns	Vented							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Component Emissions	Vented							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Distribution M&R Stations	Component Leaks	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Station Leaks & Emissions	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	All Damages	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Customer Meters	Blowdowns	Vented							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Meter Leaks	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	All Damages	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Vented Emissions	Vented							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
									-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Underground Storage	Storage Leaks & Emissions	Fugitive			13		27		14	107.7%	-	#DIV/0!	27.00	#DIV/0!	Increased number of wellhead leaks detected in 2021.
	Compressor Emissions	Vented	99		1629		2861		1,232	75.6%	-	#DIV/0!	2,762.00	2,789.9%	Increased compressor runtime in 2021.
	Compressor Leaks	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	Blowdowns	Vented	182		116		165		49	42.2%	-	#DIV/0!	(17.00)	(9.3%)	Increased number of blowdowns to fix LDAR leaks in 2021.
	Component Emissions	Vented	1144						-	#DIV/0!	-	#DIV/0!	(1,144.00)	(100.0%)	
	Component Leaks	Fugitive			678		629		(49)	(7.2%)	-	#DIV/0!	629.00	#DIV/0!	
Unusual Large Leaks	Dehydrator Vent Emissions	Fugitive							-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
	(Description)								-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	
Total			1638		2438	NA	3687	NA	1,249	51%	NA	NA	2,049.00	125.1%	

Lodi Gas Storage, L.L.C., June 15, 2022

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 2022 June Report
Appendix 8; Rev. 03/30/22

System Wide Leak Rate Data

1/1/2021 - 12/31/2021

The highlighted cells show the volumes that are summed together as the throughput for calculating the system wide leak rate.

Gas Storage Facilities:

Average Close of the Month Cushion Gas Storage Inventory (Mscf)	Average Close of the Month Working Gas Storage Inventory (Mscf)	Total Annual Volume of Injections into Storage (Mscf)	Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Withdrawals from Storage (Mscf)	Explanatory Notes / Comments
11,770,000	21,070,983	24,618,138	399,495	19,112,786	

Transmission System:

Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Gas Transported to or for Customers* in State (Mscf)	Total Annual Volume of Gas Transported to or for Customers* out of State (Mscf)	Total Annual Volume of Gas Transported to utility-owned or third-party storage fields for injection into storage (Mscf)	Explanatory Notes / Comments
	19,112,786		24,618,138	Gas flow in transmission pipeline is bi-directional

Distribution System:

Total Annual Volume of Gas Used by the Gas Department (Mscf)	Total Annual Volume of Gas Transported to or for Customers* in State (Mscf)	Total Annual Volume of Gas Transported to or for Customers* out of State (Mscf)	Explanatory Notes / Comments

*The term customers includes anyone that the utility is transporting gas for, including customers who purchase gas from the utility.

Customers can be anyone including residential, businesses, other utilities, gas transportation companies, etc.

Lodi Gas Storage, L.L.C., June 15, 2022

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In Response to Data Request, R15-01-008 2022 June Report

Appendix 8; Rev. 03/30/22

Summary Tables:

Natural Gas Properties	Average Mole Percent	Explanatory Notes / Comments
Methane		Natural gas meets PG&E specifications
Carbon Dioxide		Natural gas meets PG&E specifications
Ethane		Natural gas meets PG&E specifications
C3+		Natural gas meets PG&E specifications
C6+		Natural gas meets PG&E specifications
Oxygen		Natural gas meets PG&E specifications
Hydrogen		Natural gas meets PG&E specifications
Sulfur		Natural gas meets PG&E specifications
Water		Natural gas meets PG&E specifications
Carbon Monoxide		Natural gas meets PG&E specifications
Particulate Matter		Natural gas meets PG&E specifications
Inert Gas		Natural gas meets PG&E specifications
Odorant		Natural gas meets PG&E specifications