

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 2020 June Report
Appendix 7; Rev. 03/31/20

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.

[illegible]

Notes:

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

- 1) New Column for Measurement Frequency - See box comments. If you have any questions contact Ed Charlekiewicz at 415-703-2421 or via email.
- 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 emissions measurement method, where applicable and measured by the operator.

- Measure centrifugal compressor emissions additional columns added for these emissions
 - Dry seals
 - Wet seals
 - Wet seal oil degassing vents in Pressurized Idle mode

20.638

GILL RANCH STORAGE, LLC 06.15.2020

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 2020 June Report

Appendix 7; Rev. 03/31/20

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

Underground Storage Blowdowns:

ID	Geographic Location	Source	Compressor Type	Number of Blowdown Events	Annual Emissions (Mscf)	Explanatory Notes / Comments
C-210	93637	C	R	64	1029.247	START UP AND MAINTENANCE BLOWDOWNS
C-220		C	R	36	576.783	START UP AND MAINTENANCE BLOWDOWNS
C-230		C	R	29	413.985	START UP AND MAINTENANCE BLOWDOWNS
C-240		C	R	46	687.841	START UP AND MAINTENANCE BLOWDOWNS
C-250		C	R	66	1080.176	START UP AND MAINTENANCE BLOWDOWNS
WELL 201		P		4	25.012	MAINTENANCE BLOWDOWNS
WELL 203		P		3	6.361	MAINTENANCE BLOWDOWNS
WELL 204		P		3	6.361	MAINTENANCE BLOWDOWNS
WELL 205		P		1	13.158	MAINTENANCE BLOWDOWNS
WELL 103		P		1	152.823	MAINTENANCE BLOWDOWNS
WELL 106		P		2	273.627	MAINTENANCE BLOWDOWNS
FACILITY		P		1	1040.594	ANNUAL EMERGENCY SHUT DOWN TESTING. THIS TEST CONFIRMS THAT THE FACILITY VENT VALVES OPEN IN CASE OF AN EMERGENCY
PIT- 3008		p		1	47.986	BLOWDOWN TO REDUCE DIFFERENTIAL PRESSURE ACROSS A VALVE
PIT 3000		p		20	446.099	BLOWDOWNS TO REDUCE DIFFERENTIAL PRESSURE ACROSS A VALVE
SC 113 123 133		p		2	139.758	BLOWDOWNS TO ALLOW OPERATIONS TO SAFELY REMOVE CORROSION COUPONS. THIS IS DONE TWICE A YEAR
F-301		p		2	95.905	BLOWDOWNS FOR FILTER CHANGE OUT
F-302		p		1	74.405	BLOWDOWN FOR FILTER CHANGE OUT
F-255		p		1	125	BLOWDOWN FOR FILTER CHANGE OUT
PIT-1232		p		1	258.537	MAINTENANCE BLOWDOWNS
PIT-1332		p		1	248.556	MAINTENANCE BLOWDOWNS
PIT-1132		p		2	246.082	MAINTENANCE BLOWDOWNS

287 6988.2960

GILL RANCH STORAGE, LLC 06.15.2020

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 2020 June Report

Appendix 7; Rev. 03/31/20

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.

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
PCV-8110	93637	P	L	FISHER	110		365	0.216	78.84	MANUFACTURER'S ESTIMATE. WELL 202 WAS STILL NOT IN OPERATION.
PCV-8210	93637	P	L	FISHER	110		0	0.216	0	
PCV-8310	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-8410	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-7710	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-7810	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-7510	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-7610	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-7110	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-7210	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-7310	93637	P	L	FISHER	110		365	0.216	78.84	
PCV-7410	93637	P	L	FISHER	110		365	0.216	78.84	
									867.24	

GILL RANCH STORAGE, LLC 06.15.2020

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 2020 June Report

Appendix 7; Rev. 03/31/20

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 captured in this tab.

Underground Storage: Compressor and Component Fugitive Leaks (see note above):

						12/31/2019	1/1/2019						
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	
HV-1867	93637 C	NA	NA	NA	3220	03/04/19	03/04/19	12/07/18	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
XV-8201A	93637 C	NA	NA	NA	3220	03/04/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
HV-2007	93637 C	NA	NA	NA	3220	03/04/19	03/04/19	12/07/18	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
FV-8020	93637 C	NA	NA	NA	3220	03/04/19	03/04/19	12/07/18	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
HV-2032	93637 C	NA	NA	NA	3220	03/04/19	03/04/19	12/07/18	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
PR-132 DOOR	93637 C	NA	NA	NA	3220	03/04/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
PR-131 DOOR	93637 C	NA	NA	NA	3220	03/04/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
H-134 FUEL GAS	93637 C	NA	NA	NA	3220	03/04/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
H-115	93637 C	NA	NA	NA	3220	03/04/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
H-114	93637 C	NA	NA	NA	3220	03/04/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
C-210 THROW 3	93637 C	NA	NA	NA	3220	03/05/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
C-210 THROW 4	93637 C	NA	NA	NA	3220	03/05/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
C-250 THROW 5	93637 C	NA	NA	NA	3220	03/05/19	03/05/19	12/07/18	71.00	0.1342	9.5282	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
FV-2212	93637 C	NA	NA	NA	3220	03/06/19	03/06/19	12/07/18	72.00	0.1342	9.6624	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 104 TREE PAI	93637 C	NA	NA	NA	3220	5/15/2019	5/15/2019	03/06/19	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 101 ANNULU	93637 C	NA	NA	NA	3220	5/15/2019	5/15/2019	03/06/19	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 101 HV-1889	93637 C	NA	NA	NA	3220	5/15/2019	5/15/2019	03/06/19	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 201 ANNULU	93637 C	NA	NA	NA	3220	5/15/2019	5/15/2019	03/06/19	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 203 ANNULU	93637 C	NA	NA	NA	3220	5/15/2019	5/15/2019	03/06/19	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 203 V-831 P5	93637 PR	NA	NA	NA	3220	5/15/2019	5/15/2019	03/06/19	70.00	0.9518	66.6260	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 204 ANNULU	93637 C	NA	NA	NA	3220	5/15/2019	5/15/2019	03/06/19	70.00	0.1342	9.3940	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
H-115 FLANGE COM	93637 C	NA	NA	NA	3220	6/1/2019	6/1/2019	03/06/19	86.00	0.1342	11.5412	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
PR-801 DOOR	93637 C	NA	NA	NA	3220	9/8/2019	9/9/2019	5/15/2019	117.00	0.1342	15.7014	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 203 XV-8203	93637 C	NA	NA	NA	3220	9/8/2019	9/9/2019	5/15/2019	117.00	0.1342	15.7014	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
PR-103 DOOR	93637 C	NA	NA	NA	3220	9/8/2019	9/9/2019	5/15/2019	117.00	0.1342	15.7014	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
FIT-7111	93637 C	NA	NA	NA	3220	9/8/2019	9/9/2019	5/15/2019	117.00	0.1342	15.7014	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
FIT-7211	93637 C	NA	NA	NA	3220	9/8/2019	9/9/2019	5/15/2019	117.00	0.1342	15.7014	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
C-210 F-215	93637 C	NA	NA	NA	3220	9/10/2019	9/11/2019	5/15/2019	119.00	0.1342	15.9698	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
XV-3064	93637 C	NA	NA	NA	3220	9/10/2019	9/11/2019	5/15/2019	119.00	0.1342	15.9698	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
H-134 1" PLUG	93637 C	NA	NA	NA	3220	9/15/2019	9/15/2019	5/15/2019	123.00	0.1342	16.5066	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
PR-703 DOOR	93637 C	NA	NA	NA	3220	9/15/2019	9/15/2019	5/15/2019	123.00	0.1342	16.5066	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
PR-701 DOOR	93637 C	NA	NA	NA	3220	9/16/2019	9/16/2019	5/15/2019	124.00	0.1342	16.6408	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
FIT-7211	93637 C	NA	NA	NA	3220	9/16/2019	9/16/2019	5/15/2019	124.00	0.1342	16.6408	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
H-134 FLANGE	93637 C	NA	NA	NA	3220	12/20/2019	12/20/2019	9/8/2019	103.00	0.1342	13.8226	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
PCV-1150	93637 C	NA	NA	NA	3220	12/21/2019	12/21/2019	9/8/2019	104.00	0.1342	13.9568	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
HV-1962	93637 C	NA	NA	NA	3220	12/21/2019	12/21/2019	9/8/2019	104.00	0.1342	13.9568	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
XV-3064	93637 C	NA	NA	NA	3220	12/21/2019	12/21/2019	9/8/2019	104.00	0.1342	13.9568	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	
WELL 202 PORT	93637 C	NA	NA	NA	3220	12/28/2019	12/28/2019	9/8/2019	111.00	0.1342	14.8962	GS-700 BY HEATHE CONSULTANTS USED FOR SURVEYING	

514.8540

GILL RANCH STORAGE, LLC 06.15.2020

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 2020 June Report
Appendix 7; Rev. 03/31/20**

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 State Air Resources Board (ARB):
Note - Definitions in Data Request, R15-01-008 2018 June Report

The following question in the above mentioned data request is answered using the spreadsheets in this Appendix (#7):

(6) Calculable or estimated emissions and non-graded gas leaks, as defined in Data Request R15-01-008 2018 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

Underground Storage Dehydrator Vented Emissions:

ID	Geographic Location	Type of Dehydrator (Glycol or Desiccant)	Vapor Recovery Unit or Thermal Oxidizer (Y/N)	Annual Volume of Gas Withdrawn (Mscf)	Emission Factor (Y/N)	Engineering Estimate (Y/N)	Annual Emissions (Mscf)	Explanatory Notes / Comments
DEHY 1/DEHY 2	93637	GLYCOL	Y	9,495,870	N	N	NA	

Appendix 7 - Rev. 03/31/20

Header column "Comment" boxes displayed below for reference.

Column Heading		Description and Definition of Required Contents (IF not self-explanatory)
Storage Leaks & Emissions		
ID		
Geographic Location		GIS, zip code, or equivalent
Source		W/C = wellhead connector W/V = wellhead valve W/PRV = wellhead pressure relief valve W/OEL = wellhead open-ended line W/F = wellhead flange W/O = wellhead other C = casing P = pipeline O = other
Number of Sources		
Discovery Date		Report Discovery Date if calculating wellhead component emissions using Leaker EFs
Repair Date		Report Discovery Date if calculating wellhead component emissions using Leaker EFs
Number of Days Leaking		Calculate Number of Days Leaking using the formula: Repair Date minus Discovery Date + 1 day
Emission Factor (Mscf/yr)		
Annual Emissions (Mscf)		
Explanatory Notes / Comments		
Compressor Vented Emissions		
ID		
Geographic Location		GIS, zip code, or equivalent
Compressor Type		C = centrifugal R = reciprocating
Prime Mover		E = electric motor C = internal combustion engine
Number of Cylinders in Compressor		
Number of Seals		
Seal Type		W = wet D = dry O = other
Measurment Frequency		A - Annual Q - Quarterly M - Monthly W - Weekly D - Daily
Emission Factor: Measurement Date - Pressurized Operations		

Column Heading	Description and Definition of Required Contents (IF not self-explanatory)
Operating Mode: Pressurized Operating (hours)	Use these EF columns as well as the columns for the Compressor Measurements noted in Columns R thru AB when they are applicable. If the data is not captured by the operator, then add a note explaining why the applicable measurement data was not recorded or available in the Explanatory Notes / Comments column.
Operating Mode: Pressurized Idle (hours)	
Operating Mode: Depressurized Idle (hours)	
Operating Mode: Offline (Hours)	
Emission Factor: Pressurized Operating (scf/hr)	
Emission Factor: Pressurized Idle (scf/hr)	
Emission Factor: Depressurized Idle (scf/hr)	
Emission Factor: Offline (scf/hr)	If the "Offline" hours are counted, then a measurement of "offline" emissions should be taken to determine whether emissions occur. (We should not assume they are zero.)
Emission Factor: Pressurized Operating - Rod Packing (scf/hr)	These are new columns for reporting year 2020 of 2019 data. These only apply to operators who during their operations and surveys of compressor stations measure their Compressor Vented Emissions for these components of the compressor. Not all gas operators measure vented emissions and establish flow rates for vented emissions while at the various modes of operation. The current regulations require an annual
Emission Factor: Pressurized Operating - Blowdown Valve (scf/hr)	CPUC Staff strongly encourage more frequent measurement of the following compressor vented emissions. Compliance minimum is once annually, though Staff suggest the minimum frequency should be quarterly and measured at roughly the same time each quarter (e.g. on or around the component survey given mode of operation). More frequent measurements, e.g. monthly would be better due to the temporal changes in conditions that effect emissions. The more frequent measurements also provide an opportunity to detect worn rod packing or seals, which exacerbate emissions, and with timely awareness of suboptimal operations gas operators have an opportunity for accelerating maintenance to correct worn parts. The following steps for reporting more frequent measurements in 2019 are outlined in the adjacent cell, and should be provided if available. Advance notice for 2021 reporting, CPUC Staff will propose quarterly reporting at the winter workshop. Therefore, gas companies are requested to start measuring compressor emissions on at least a quarterly basis for the remainder of 2020, if not doing so already. This will ensure gas companies are prepared to report these emissions in accordingly in 2021.
Emission Factor: Pressurized Operating - Wet Seal Oil Degassing Vent (scf/hr)	
Emission Factor: Pressurized Operating - Wet Seal (scf/hr)	
Emission Factor: Pressurized Operating - Dry Seal (scf/hr)	
Emission Factor: Pressurized Idle - Rod Packing (scf/hr)	
Emission Factor: Pressurized Idle - Blowdown Valve (scf/hr)	
Emission Factor: Pressurized Idle - Wet Seal Oil Degassing Vent (scf/hr)	
Emission Factor: Pressurized Idle - Wet Seal (scf/hr)	

Column Heading	Description and Definition of Required Contents (IF not self-explanatory)
Emission Factor: Pressurized Idle - Dry Seal (scf/hr)	
Emission Factor: Pressurized Idle - Isolation Valve (scf/hr)	
Emissions (Mscf)	
Explanatory Notes / Comments	
Blowdowns	
ID	
Geographic Location	GIS, zip code, or equivalent
Source	W = wellhead rework C = compressor P= pipeline O = other
CompressorType	C = centrifugal R = reciprocating
Number of Blowdown Events	
Annual Emissions(Mscf)	
Explanatory Notes / Comments	
Component Vented Emissions	
ID	
Geographic Location	GIS, zip code, or equivalent
Device Type	C = connector OE = open-ended line M = meter P = pneumatic device PR = pressure relief valve V = valve O = other devices
Bleed Rate	L = low bleed I = intermittent bleed H = high bleed NA = not applicable
Manufacturer	
Pressure (psi)	MOP = maximum operating pressure over the past year
Survey Date (MM/DD/YY)	
Number of Days Emitting	Because the emissions are a factor of design or function, these emissions counted for the entire year.
Emission Factor, Engineering or Manufacturer's based Estimate of Emissions (Mscf/day)	Explain in the comment column the basis for your emission estimate.

Column Heading		Description and Definition of Required Contents (IF not self-explanatory)
Annual Emissions (Mscf)		
Explanatory Notes / Comments		
Compressor and Component Leaks		
ID		
Geographic Location		GIS, zip code, or equivalent
Device Type		C = connector OE = open-ended line M = meter P = pneumatic device PR = pressure relief valve V = valve O = other devices
Bleed Rate		L = low bleed I = intermittent bleed H = high bleed NA = not applicable
Manufacturer		
Pressure (psi)		MOP = maximum operating pressure over the past year
Discovery Date (MM/DD/YY)		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.
Repair Date (MM/DD/YY)		Date that the component repair stopped the leak. Any associated blowdowns as a result of the repair should be included in the blowdowns tab.
Prior Survey Date (MM/DD/YY)		Before the discovery date of the leak, there was a "Prior Survey Date" when the compressor station was tested and no leak was found. There should be records as to when the compressor station was last surveyed. If the survey spanned two or more days, enter the final date. Note, a facility level survey date is sufficient to establish the prior survey date.

Column Heading	Description and Definition of Required Contents (IF not self-explanatory)
Number of Days Leaking	The algorithm that is used for determining the number of days leaking should conform to the following guidance: For the number days leaking prior to the date of discovery (survey date in the year of interest), calculate the number of days between the Discovery Date and the Prior Survey Date then divided by 2. [Dividing by 2 approximates the average time leaking between the leak discovery and the prior survey date. See below guidance when a leak is discovered in a prior period and repaired in the year of interest.] $(\text{Discovery Date} - \text{Prior Survey Date})/2$ Calculate the number of days leaking after discovery (survey) date, by subtracting the discovery date from the repair date, unless the leak has not been repaired, where the number of days should be calculated by subtracting the discovery date from December 31 of the year of interest.* $(\text{Repair Date} - \text{Discovery Date})$, unless repair date greater than 12/31/XX then use 12/31/XX --- $\text{Days Leaking} = (\text{Repair Date} - \text{Discovery Date}) + (\text{Discovery Date} - \text{Prior Survey Date})/2 + 1$ * [This requires tracking the leak across different years, because the leak could be minor and conceivably span more than year before getting repaired. Therefore, in the cases where a leak is carried over to a subsequent year, an annual calculation should be made to reflect that the number of days leaking in the prior year have already been reported in the annual emissions inventory. In subsequent years the carried over leaks should reflect a beginning date of January 1 of the year of interest.]
Emission Factor or Engineering Estimate (Mscf/day)	
Emissions (Mscf)	
Explanatory Notes / Comments	

Column Heading		Description and Definition of Required Contents (IF not self-explanatory)
Dehydrator Vented Emissions		
ID		
Geographic Location		GIS, zip code, or equivalent
Type of Dehydrator (Glycol or Desiccant)		
Vapor Recovery Unit OR Thermal Oxidizer (Y/N)		In order to claim 0 emissions, a Vapor Recovery Unit OR thermal oxidizer must be used 100% of the time during operation
Annual Volume of Gas Withdrawn (Mscf)		
Emission Factor (Y/N)		If the glycol dehydrator has a Vapor Recovery Unit (VRU) or a thermal oxidizer, the emission factor is 0. If using a desiccant dehydrator, the emission factor is 2.23E-03 mt CH₄/MMscf
Engineering Estimate (Y/N)		If using an engineering estimate, please include an attachment of methodology or software used as a separate document. Record the annual emissions
Annual Emissions (Mscf)		For dehydrators using an emission factor, annual emissions are calculated by multiplying annual volume of gas withdrawn and the emission factor For dehydrators using an engineering estimate, record the annual emissions
Explanatory Notes / Comments		