

## **4Q2021 LEAK MONITORING SURVEY REPORT SUMMARY**

Transcontinental Gas Pipe Line Company, LLC  
Compressor Station 190 – Howard County, Maryland  
Part 70 Operating Permit No 24-027-00223



Pursuant to COMAR 26.11.41.07. 07A(1)(c), Transco hereby posts the following quarterly report summary of the leak monitoring survey conducted at Compressor Station 190 in Howard County, Maryland.

The summary report includes the information required in COMAR 26.11.41.07. 07A(1)(a), which includes the following:

- (i) Date of the survey;
- (ii) A list of each fugitive emission and repair;
- (iii) Any deviations from the initial methane monitoring plan or a statement that there were no deviations from the initial methane monitoring plan;
- (iv) Number and type of components for which fugitive emissions were detected;
- (v) Number and type of difficult-to-monitor fugitive emission components monitored;
- (vi) Instrument reading of each fugitive emissions component that requires repair when EPA Method 21 (40 CFR 60, Appendix A-7) is used for monitoring;
- (vii) Number and type of fugitive emissions components that were not repaired;
- (viii) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair;
- (ix) The date of successful repair of the fugitive emissions component; and
- (x) Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

Each LDAR survey summary report will be posted on the website for a period of at least two years from the date of the survey.

<b>Quarterly Monitoring Survey Report Summary</b>		
<b>Facility</b>	Transco Compressor Station 190	
<b>Regulation(s)</b>	COMAR 26.11.41	
<b>Survey Method(s)</b>	OGI	
<b>Equipment</b>	74900189 - GFX320 (Target GFX2)	
<b>Report Summary</b>		<b>Required by</b>
<b>Survey Date</b>	12/1/2021	COMAR 26.11.41.07A.(1)(a)(i)
<b>A List of Each Leak and Repair</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(ii)
<b>Deviated from Monitoring Plan</b>	No	COMAR 26.11.41.07A.(1)(a)(iii)
<b>Number and Type of Components found to have fugitive emissions.</b>	14	COMAR 26.11.41.07A.(1)(a)(iv)
<b>Number and type of difficult-to-monitor components monitored</b>	NA	COMAR 26.11.41.07A.(1)(a)(v)
<b>Number and type of components not repaired</b>	8	COMAR 26.11.41.07A.(1)(a)(vii) - See Table 1
<b>Number and type of Components placed on Delay of Repair</b>	8	COMAR 26.11.41.07A.(1)(a)(viii) - See Table 1
<b>Repair Date</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(ix)
<b>Method to Resurvey Repaired Components</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(x)

NA = Not Applicable

**TABLE 1**  
**Monitoring Survey Summary**

Facility Name	Leak Date	Component Type	Component Sub Type	Location Description	Status	Repair Confirmation Date	Confirmation Method	Delay Of Repair	DOR Reason
COMAR 26.11.41.07A.(1)(a)	(i)		(ii)	(ii)		(ix)	(x)	(viii)	(viii)
190 Station	12/01/2021	Valve	Gate Valve	Packing of Gate Valve GV-02-055 at Scrubbers.	Repair Confirmed	12/1/2021	OGI	No	
190 Station	12/01/2021	Compressor	Compressor	Distance Piece Connection to Cylinder 1, Unit 5.	Delay of Repair			Yes	The repair requires a vent blowdown to complete.
190 Station	12/01/2021	Compressor	Pocket Flange	Near Top Left Unloader Flange on Cylinder 1, Unit 4.	Repair Confirmed	12/22/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Compressor	Pocket Flange	Far Top Left Unloader Flange on Cylinder 2, Unit 4.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Connector	Connector	Threaded Connection from Kiene Valve to Cylinder 3, Unit 2.	Repair Confirmed	12/22/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Valve	Gate Valve	Packing of Gate Valve GV-02-108 at Scrubbers.	DOR - Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Valve	Control Valve	Seat of EBD Valve EBD-4000, South of Pig Area.	Delay of Repair			Yes	The repair requires a facility shutdown to complete.
190 Station	12/01/2021	Connector	Connector	Threaded Connection to PSV-0104 from tubing.	Delay of Repair			Yes	The repair requires a vent blowdown to complete.
190 Station	12/01/2021	Connector	Connector	Connection to manifold from Front Relief Valve Pilot, PSV-0104 outside	Delay of Repair			Yes	The repair requires a vent blowdown to complete.
190 Station	12/01/2021	Connector	Union	Union to Tubing on North end of Bottle, Outside of Unit 2 Building.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Connector	Connector	Front Pilot Thread to Manifold on PSV-0304, Outside Unit 3 Building.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Connector	Union	Union to tubing on south side of PSV-0404, Outside Unit 4 Building.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Connector	Connector	Threaded Connection from Front Pilot on top of PSV-0904, Outside Unit	Delay of Repair			Yes	The repair requires a vent blowdown to complete.
190 Station	12/01/2021	Connector	Connector	Threading from Front Pilot on PSV-1004, Outside Unit 10 Building.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Valve	Control Valve	Seat of PSV-2863, Outside of Unit 11 Building.	Delay of Repair			Yes	The repair requires a vent blowdown to complete.
190 Station	12/01/2021	Compressor	Pocket Flange	Top Right Unloader Flange Seal on Cylinder 3, Unit 10.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Compressor	Pocket Flange	Near Top Left Unloader Flange on Cylinder 2, Unit 10.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Compressor	Pocket Flange	Far Top Left Unloader Flange Seal on Cylinder 2, Unit 10.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Compressor	Pocket Flange	Near Top Right Unloader Flange on Cylinder 2, Unit 5.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Compressor	Pocket Flange	Far Top Right Unloader Flange on Cylinder 2, Unit 5.	Repair Confirmed	12/28/2021	Method 21- Soap Bubbles	No	
190 Station	12/01/2021	Connector	Union	Bottom Union to Pocket Filter at Ground Level by Unit 13 Hatch.	Delay of Repair			Yes	The repair requires a vent blowdown to complete.
190 Station	12/01/2021	Connector	Union	Bottom Union to Filter at Ground Level by Unit 13 Hatch.	Delay of Repair			Yes	The repair requires a vent blowdown to complete.

## **3Q2021 LEAK MONITORING SURVEY REPORT SUMMARY**

Transcontinental Gas Pipe Line Company, LLC  
Compressor Station 190 – Howard County, Maryland  
Part 70 Operating Permit No 24-027-00223



Pursuant to COMAR 26.11.41.07. 07A(1)(c), Transco hereby posts the following quarterly report summary of the leak monitoring survey conducted at Compressor Station 190 in Howard County, Maryland.

The summary report includes the information required in COMAR 26.11.41.07. 07A(1)(a), which includes the following:

- (i) Date of the survey;
- (ii) A list of each fugitive emission and repair;
- (iii) Any deviations from the initial methane monitoring plan or a statement that there were no deviations from the initial methane monitoring plan;
- (iv) Number and type of components for which fugitive emissions were detected;
- (v) Number and type of difficult-to-monitor fugitive emission components monitored;
- (vi) Instrument reading of each fugitive emissions component that requires repair when EPA Method 21 (40 CFR 60, Appendix A-7) is used for monitoring;
- (vii) Number and type of fugitive emissions components that were not repaired;
- (viii) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair;
- (ix) The date of successful repair of the fugitive emissions component; and
- (x) Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

Each LDAR survey summary report will be posted on the website for a period of at least two years from the date of the survey.

<b>Quarterly Monitoring Survey Report Summary</b>		
<b>Facility</b>	Transco Compressor Station 190	
<b>Regulation(s)</b>	COMAR 26.11.41	
<b>Survey Method(s)</b>	OGI	
<b>Equipment</b>	74900189 - GFX320 (Target GFX2)	
<b>Report Summary</b>		<b>Required by</b>
<b>Survey Date</b>	9/17/2021	COMAR 26.11.41.07A.(1)(a)(i)
<b>A List of Each Leak and Repair</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(ii)
<b>Deviated from Monitoring Plan</b>	No	COMAR 26.11.41.07A.(1)(a)(iii)
<b>Number and Type of Components found to have fugitive emissions.</b>	27	COMAR 26.11.41.07A.(1)(a)(iv)
<b>Number and type of difficult-to-monitor components monitored</b>	NA	COMAR 26.11.41.07A.(1)(a)(v)
<b>Number and type of components not repaired</b>	16	COMAR 26.11.41.07A.(1)(a)(vii) - See Table 1
<b>Number and type of Components placed on Delay of Repair</b>	11	COMAR 26.11.41.07A.(1)(a)(viii) - See Table 1
<b>Repair Date</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(ix)
<b>Method to Resurvey Repaired Components</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(x)

NA = Not Applicable

**TABLE 1**  
**Monitoring Survey Summary**

Facility Name	Leak Date	Component Type	Component Sub Type	Location Description	Status	Repair Confirmation Date	Confirmation Method	Delay Of Repair	DOR Reason
COMAR 26.11.41.07A.(1)(a)	(i)		(ii)	(ii)		(ix)	(x)	(viii)	(viii)
190 Station	9/17/2021	Connector	Union	Threaded Connection of Union, South of Valve BV-1P-229.	Repair Confirmed	9/27/2021	Method 21	No	
190 Station	9/17/2021	Connector	Fitted Connection	Threaded Connection of Pressure Alert Valve, North of Valve MD19 ab	Delay of Repair			Yes	The repair requires parts or equipment that takes longer than 30 days to be ordered and delivered.
190 Station	9/17/2021	Connector	Plug	Plug in Yale Cap South of Valve 190A0 above Valve B-1.	Delay of Repair			Yes	The repair requires a facility shutdown in order to complete.
190 Station	9/17/2021	Connector	Grease Zerk	North Grease Fitting, North of Valve 190A0 on Gate valve B-2.	Delay of Repair			Yes	The repair requires a facility shutdown in order to complete.
190 Station	9/17/2021	Connector	Screwed Connection	Threaded Connection of Stem on Valve 190-S2.	Delay of Repair			Yes	The repair requires a facility shutdown in order to complete.
190 Station	9/17/2021	Connector	Cap	Yale Cap South of Valve 190C0, above Valve B-1.	Repair Confirmed	10/1/2021	Method 21	No	
190 Station	9/17/2021	Connector	Cap	Yale Cap North of Valve 190C0, above Valve B-2.	Repair Confirmed	10/1/2021	Method 21	No	
190 Station	9/17/2021	Valve	Control Valve	Packing of Valve 190C0.	Delay of Repair			Yes	The repair requires a blowdown in order to complete.
190 Station	9/17/2021	Connector	Plug	Plug in Needle Valve South of Valve MD-42 above Valve B-1	Repair Confirmed	9/30/2021	Method 21	No	
190 Station	9/17/2021	Connector	Cap	Yale Cap North of Valve MD-31, above Valve B-2.	Repair Confirmed	9/27/2021	Method 21	No	
190 Station	9/17/2021	Connector	Cap	Yale Cap South of Valve MD-38, above Valve B-1.	Repair Confirmed	9/30/2021	Method 21	No	
190 Station	9/17/2021	Valve	Control Valve	Body Seal of Valve MD-38.	Delay of Repair			Yes	The repair requires a blowdown in order to complete.
190 Station	9/17/2021	Valve	Block Valve	Seat of Unit 13 Emergency Blowdown Valve.	Delay of Repair			Yes	The repair requires a blowdown in order to complete.
190 Station	9/17/2021	Flange	Flange	Unloader Flange Seal 311, Unit 2.	Repair Confirmed	10/1/2021	Method 21	No	
190 Station	9/17/2021	Flange	Flange	Unloader Flange Seal 104, Unit 4.	Repair Confirmed	10/1/2021	Method 21	No	
190 Station	9/17/2021	Flange	Flange	Unloader Flange Seal 211, Unit 8.	Repair Confirmed	10/5/2021	Method 21	No	
190 Station	9/17/2021	Flange	Flange	Unloader Flange Seal 314, Unit 8.	Repair Confirmed	10/5/2021	Method 21	No	
190 Station	9/17/2021	Flange	Flange	Unloader Flange Seal 211, Unit 9.	Repair Confirmed	10/5/2021	Method 21	No	
190 Station	9/17/2021	Compressor	Compressor	Seal between Distance Piece and Cylinder 3, Unit 10.	Delay of Repair			Yes	The repair requires a facility shutdown in order to complete.
190 Station	9/17/2021	Compressor	Compressor	Seal between Distance Piece and Cylinder 2, Unit 10.	Delay of Repair			Yes	The repair requires a blowdown in order to complete.
190 Station	9/17/2021	Connector	Plug	East Plug in Horizontal Fuel Gas Filter.	Delay of Repair			Yes	The repair requires a facility shutdown in order to complete.
190 Station	9/17/2021	Valve	Control Valve	Packing of Bypass Valve, Unit 11.	Repair Confirmed	10/6/2021	Method 21	No	
190 Station	9/17/2021	Valve	Control Valve	Packing of Bypass Valve, Unit 9.	Repair Confirmed	10/5/2021	Method 21	No	
190 Station	9/17/2021	Valve	Control Valve	Packing of Suction Valve, Unit 9.	Repair Confirmed	10/6/2021	Method 21	No	
190 Station	9/17/2021	Valve	Control Valve	Packing of Suction Valve, Unit 7.	Repair Confirmed	10/6/2021	Method 21	No	
190 Station	9/17/2021	Valve	Control Valve	Grease Fitting on Suction Valve, Unit 5	Delay of Repair			Yes	The repair requires a blowdown in order to complete.
190 Station	9/17/2021	Valve	Block Valve	Body Seal of PSV, Unit 8.	Repair Confirmed	10/5/2021	Method 21	No	

## **2Q2021 LEAK MONITORING SURVEY REPORT SUMMARY**

Transcontinental Gas Pipe Line Company, LLC  
Compressor Station 190 – Howard County, Maryland  
Part 70 Operating Permit No 24-027-00223



Pursuant to COMAR 26.11.41.07. 07A(1)(c), Transco hereby posts the following quarterly report summary of the leak monitoring survey conducted at Compressor Station 190 in Howard County, Maryland.

The summary report includes the information required in COMAR 26.11.41.07. 07A(1)(a), which includes the following:

- (i) Date of the survey;
- (ii) A list of each fugitive emission and repair;
- (iii) Any deviations from the initial methane monitoring plan or a statement that there were no deviations from the initial methane monitoring plan;
- (iv) Number and type of components for which fugitive emissions were detected;
- (v) Number and type of difficult-to-monitor fugitive emission components monitored;
- (vi) Instrument reading of each fugitive emissions component that requires repair when EPA Method 21 (40 CFR 60, Appendix A-7) is used for monitoring;
- (vii) Number and type of fugitive emissions components that were not repaired;
- (viii) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair;
- (ix) The date of successful repair of the fugitive emissions component; and
- (x) Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

Each LDAR survey summary report will be posted on the website for a period of at least two years from the date of the survey.

<b>Quarterly Monitoring Survey Report Summary</b>		
<b>Facility</b>	Transco Compressor Station 190	
<b>Regulation(s)</b>	COMAR 26.11.41	
<b>Survey Method(s)</b>	OGI	
<b>Equipment</b>	74900189 - GFX320 (Target GFX2)	
<b>Report Summary</b>		<b>Required by</b>
<b>Survey Date</b>	4/16/2021	COMAR 26.11.41.07A.(1)(a)(i)
<b>A List of Each Leak and Repair</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(ii)
<b>Deviated from Monitoring Plan</b>	No	COMAR 26.11.41.07A.(1)(a)(iii)
<b>Number and Type of Components found to have fugitive emissions.</b>	27	COMAR 26.11.41.07A.(1)(a)(iv)
<b>Number and type of difficult-to-monitor components monitored</b>	NA	COMAR 26.11.41.07A.(1)(a)(v)
<b>Number and type of components not repaired</b>	21	COMAR 26.11.41.07A.(1)(a)(vii) - See Table 1
<b>Number and type of Components placed on Delay of Repair</b>	21	COMAR 26.11.41.07A.(1)(a)(viii) - See Table 1
<b>Repair Date</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(ix)
<b>Method to Resurvey Repaired Components</b>	See Table 1	COMAR 26.11.41.07A.(1)(a)(x)

NA = Not Applicable



**TABLE 1**  
**Monitoring Survey Summary**

Facility Name	Leak Date	Component Type	Component Sub Type	Location Description	Status	Repair Confirmation Date	Confirmation Method	Delay Of Repair	DOR Reason
COMAR 26.11.41.07A.(1)(a)	(i)		(ii)	(ii)		(ix)	(x)	(viii)	(viii)
190 Station	04/16/2021	Flange	Flange	North Pocket Cap Flange on East Side of Throw 3 , Main Unit #2.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Flange	Flange	Head Seal of Throw 3 , Main Unit #3	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Flange	Flange	Head End Unloader Seal on Cylinder 3, Main Unit #4.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Flange	Flange	South Pocket Cap Flange on West Side of Throw 3 , Main Unit #10.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Flange	Flange	North Pocket Cap Flange on West Side of Throw 3 , Main Unit #10.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Flange	Flange	North Pocket Cap Flange on East Side of Throw 1 , Main Unit #10.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Flange	Flange	Overhead Cap Under Insulation on Blowdown Stack of Fuel Gas Line to Generator, West of Unit 13 Building.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Valve	Block Valve	Packing of Block Valve GV-03-040 for line A in Metering Buliding.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Valve	Block Valve	Packing of Suction valve, Main Unit #1.	Repair Confirmed	5/12/2021	Method 21	No	
190 Station	04/16/2021	Valve	Block Valve	Packing of Bypass valve, Main Unit #2.	Repair Confirmed	5/13/2021	Method 21	No	
190 Station	04/16/2021	Valve	Block Valve	Body Seal of Bypass valve, Main Unit #7.	Repair Confirmed	5/13/2021	Method 21	No	
190 Station	04/16/2021	Valve	Block Valve	Packing of Discharge Valve, Unit #5.	Repair Confirmed	5/13/2021	Method 21	No	
190 Station	04/16/2021	Valve	Block Valve	Packing of Bypass Valve, Unit #10.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Valve	Block Valve	Packing of Bypass valve, Main Unit #11.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Open Ended Line	OEL	Open-ended Line Missing Plug on Power Power Gas Line of Valve ESD3-0203, North of 1-10 Headers.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Flange	Flange	Body Seal of Lower Regulator North of Unit 11 Discharge Valve.	Awaiting Repair	-	-	Yes	The repair requires parts or equipment that takes longer than 30 days to be ordered and delivered.
190 Station	04/16/2021	Pressure Relief Device	Pressure Relief Device	Seal of PSV-833	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Valve	Block Valve	Packing of WKM Valve South of Inlet Scrubbers	Awaiting Repair	-	-	Yes	The component is isolated and temporarily out of service.
190 Station	04/16/2021	Valve	Block Valve	Body Seal of Inlet Block Valve of Most North East Scrubber.	Awaiting Repair	-	-	Yes	The component is isolated and temporarily out of service.
190 Station	04/16/2021	Connector	Screwed Connection	PIG signal	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Valve	Block Valve	Seal Between Stem and Actuator of Valve 190BO.	Awaiting Repair	-	-	Yes	The component is isolated and temporarily out of service.
190 Station	04/16/2021	Valve	Block Valve	Packing of Valve S1 East Side of Valve Yard	Awaiting Repair	-	-	Yes	The repair requires a facility shutdown in order to complete.
190 Station	04/16/2021	Valve	Block Valve	EBD Valve at 190 S4	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.
190 Station	04/16/2021	Connector	Screwed Connection	Threaded Connection of Yale Cap on B2 Riser at Valve MD 39.	Repair Confirmed	4/28/2021	OGI	No	
190 Station	04/16/2021	Connector	Screwed Connection	Threaded Connection of Plug Above Valve on Yale Cap, B1 Riser at Valve MD 42.	Repair Confirmed	5/11/2021	Method 21	No	
190 Station	04/16/2021	Connector	Flange	Flange of Power gas Monitor Manifold on Valve S11, North End of Valve Yard.	Awaiting Repair	-	-	Yes	The repair requires parts or equipment that takes longer than 30 days to be ordered and delivered.
190 Station	04/16/2021	Valve	Block Valve	Seat of Unit 13 Emergency Blowdown Valve.	Awaiting Repair	-	-	Yes	The repair requires a blowdown in order to complete.