

## Final Report

### Fenceline Response

Start Date & Time: 8/11/2018 10:15am

End Date & Time: 8/11/2018 10:25am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	30.55	44 to 336 deg 1.8mph
2	46.17	262 to 327 deg 3.9mph
3	30.68	280 to 301 deg 7.2mph
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area and identified a leak on a pipeline to a neighboring facility.

**Actions Taken to Reduce Emissions:** TPC personnel isolated the leaking piing and prepared it for maintenance.

**Reason No Action Was Taken:** NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 3/16/2019 10:08am

End Date & Time: 3/16/2019 11:38am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	39	42 deg @ 10 mph
2	41	48 deg @ 7 mph
3	68	64 deg @ 11mph
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area  
and identified a leak on a section of braided hose on the S2C2 process compressor.

**Actions Taken to Reduce Emissions:** TPC personnel isolated and deinventoried the  
leaking hose and prepared it for maintenance to replace.

**Reason No Action Was Taken:** NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 3/18/2019 5:51am

End Date & Time: 3/18/2019 10:23am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	33	44 deg @ 4 mph
2	22	20 deg @ 4 mph
3	33	44 deg @ 5mph
4	34	45 deg @ 6 mph
5	41	45 deg @ 5 mph
6	33	37 deg @ 6 mph
7	35	42 deg @ 7mph
8	68	47 deg @ 6 mph

Potential Sources Identified: LDAR technician assisting in the investigation of fenceline  
alarms identified a leak on a hose connected to Tank 27.

Actions Taken to Reduce Emissions: TPC personnel isolated the hose and removed it  
from service.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 3/23/2019 1:36am

End Date & Time: 3/23/2019 2:36am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	114	44 deg @ 4 mph
2	113	20 deg @ 4 mph
3		
4		

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operators conducted an investigation of the wind bin area  
and identified the gasket on the 6FF34B strainers leaking.

Actions Taken to Reduce Emissions: TPC personnel isolated the strainers and replaced  
the gasket on the strainer lid to eliminate the hydrocarbon leak.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 3/25/2019 3:36am

End Date & Time: 3/25/2019 6:36am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	48	195 deg @ 8 mph
2	77	234 deg @ 9 mph
3	48	229 deg @ 9 mph
4	70	241 deg @ 4 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operators conducted an investigation of the wind bin area  
and identified a leaking sample point on pump 6G108S.

Actions Taken to Reduce Emissions: TPC personnel shut-down and deinventoried the  
pump for maintenance to repair the sample point.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 3/26/2019 @ 4:34am

End Date & Time: 3/26/2019 @ 9:04am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	117	15 deg @ 7 mph
2	150	40 deg @ 5 mph
3	171	18 deg @ 7mph
4	138	34 deg @ 6 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area and identified a leak from a bleeder on a compressor. Operators also identified other ancillary equipment with smaller leaks.

**Actions Taken to Reduce Emissions:** TPC personnel deinventoried the compressor and prepared it for maintenance. For the ancillary sources, Operators initiated the work order process to eliminate the sources of emissions.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☒ No ☐

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	131	46 deg @ 8 mph
2	80	41 deg @ 8 mph
3		
4		

## Final Report

### Fenceline Response

Start Date & Time: 3/26/2019 8:49pm

End Date & Time: 3/26/2019 10:49pm

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	173	38 deg @ 4 mph
2	291	30 deg @ 6 mph
3	226	43 deg @ 5 mph
4		

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operators conducted an investigation of the wind bin area  
and identified a leak from pressure relief valve S4RV315A.

Actions Taken to Reduce Emissions: TPC personnel removed the pressure relief valve  
from service for testing and repair.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒



## Final Report

### Fenceline Response

Start Date & Time: 3/27/2019 6:00am

End Date & Time: 3/27/2019 11:29am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	62	83 deg @ 5 mph
2	175	76 deg @ 6 mph
3	45	84 deg @ 13 mph
4	32	80 deg @ 10 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operators conducted an investigation of the wind bin area  
and measured Toxi Rae readings from bundle washing maintenance activities.

Actions Taken to Reduce Emissions: Bundle washing maintenance activity was  
completed.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 3/27/2019 11:34pm

End Date & Time: 3/28/2019 12:15am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	129	180 deg @ 5 mph
2	138	177 deg @ 4 mph
3	138	173 deg @ 4 mph
4	46	176 deg @ 5 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area  
and identified hydrocarbons leaking from a condensate valve on S4E11A that was already being  
prepared for maintenance.

**Actions Taken to Reduce Emissions:** Operators confirmed isolation valves position and  
lined up S4E11A to the vent recovery system.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 3/30/2019 4:04pm

End Date & Time: 3/30/2019 4:45pm

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	40	222 deg @ 8 mph
2	83	234 deg @ 6 mph
3	73	220 deg @ 5 mph
4		

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operators conducted an investigation of the wind bin area  
and identified a hose leaking on the Raffinate Splitter N2D1.

Actions Taken to Reduce Emissions: Operators isolated the hose and prepared it to be  
replaced by maintenance.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 4/5/2019 03:15am

End Date & Time: 4/5/2019 04:45am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	28	77 deg @ 8 mph
2	46	77 deg @ 10 mph
3	46	72 deg @ 9 mph
4	59	84 deg @ 8 mph
5	77	78 deg @ 10 mph
6	77	79 deg @ 7 mph
7	34	71 deg @ 5 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operators conducted an investigation of the wind bin area  
and identified a leak on section of piping on Tank 100.

Actions Taken to Reduce Emissions: TPC personnel deinventoried the tank and put a  
Nitrogen blanket on the tank to stop the source of emissions. TPC brought in a third party to  
degas the tank to prepare for Maintenance activities.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 4/10/2019 4:36am

End Date & Time: 4/10/2019 4:51am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	311	206 deg @ 4 mph
2	173	189 deg @ 4 mph
3		
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area and identified an ice build-up on the vent line from Rack 3 Spot 3. Leak was at connection on Vent hose that was not in-use.

**Actions Taken to Reduce Emissions:** Line was purged and pressure tested to ensure integrity. The loading spot was taken out of service until the o-ring on the vent hose can be replaced.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 4/10/2019 4:53pm

End Date & Time: 4/10/2019 5:38pm

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	63	200 deg @ 13 mph
2	62	209 deg @ 12 mph
3	28	208 deg @ 12 mph
4	41	200 deg @ 9 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area and  
identified a LDAR leak on a threaded plug on the N4D7 overhead pump.

**Actions Taken to Reduce Emissions:** The plug was replaced and the leak stopped.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

**Actions Taken to Reduce Emissions:** Operations contacted the third-party LDAR technicians to  
monitor the sources to be tracked as through the LDAR program. The two sources were  
repaired within the timelines of the LDAR program.

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**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 4/18/2019 3:49pm

End Date & Time: 4/18/2019 11:04am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	57	313 deg @ 8 mph
2	42	311 deg @ 10 mph
3	50	310 deg @ 12 mph
4	56	303 deg @ 12 mph
5	49	316 deg @ 8 mph
6	33	329 deg @ 10 mph
7	25	335 deg @ 13 mph
8	64	335 deg @ 12 mph
9	44	301 deg @ 9 mph
10	59	309 deg @ 14 mph
11	45	342 deg @ 19 mph
12	63	313 deg @ 11 mph
13	37	297 deg @ 8 mph
14	47	285 deg @ 7 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** This was an intermittent event. Operators conducted an  
investigation of the wind bin area and identified two sources of emissions. Operations  
identified a leak on exchanger S4E11A and a leak on the S4D4 tower bottoms control valve.



## Final Report

### Fenceline Response

Start Date & Time: 4/19/2019 5:49pm

End Date & Time: 4/19/2019 10:49pm

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	45	314 deg @ 17 mph
2	68	307 deg @ 16 mph
3	47	307 deg @ 11 mph
4	35	307 deg @ 13 mph
5	28	316 deg @ 8 mph
6	31	309 deg @ 11 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area and identified the source of the emissions was a known LDAR leak on exchanger S4E11A.

**Actions Taken to Reduce Emissions:** The source was repaired within the timelines of the LDAR program.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 4/20/2019 5:46pm

End Date & Time: 4/20/2019 6:46pm

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	163	230 deg @ 12 mph
2	45	226 deg @ 10 mph
3		
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area and  
didn't locate a specific source. At the time of these samples, Operations was preparing tower  
N5D1 for maintenance. The fenceline also detected Styrene which is indicative of possible  
off-site impacts.

**Actions Taken to Reduce Emissions:** TPC followed Operational procedures and MSS permit  
conditions to prepare the tower for maintenance.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 4/21/2019 12:01am

End Date & Time: 4/21/2019 3:01am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	67	237 deg @ 4 mph
2	49	227 deg @ 4 mph
3	36	229 deg @ 4 mph
4	195	239 deg @ 5 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area and  
didn't locate a specific source. At the time of these samples, Operations was preparing tower  
N5D1 for maintenance. The fenceline also detected Styrene which is indicative of possible  
off-site impacts.

**Actions Taken to Reduce Emissions:** TPC followed Operational procedures and MSS permit  
conditions to prepare the tower for maintenance.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 4/21/2019 4:16am

End Date & Time: 4/21/2019 5:15am

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	34	227 deg @ 4 mph
2		
3		
4		

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operators conducted an investigation of the wind bin area and  
Identified the filters on pump 6G6A.

Actions Taken to Reduce Emissions: TPC isolated the filters to prepare them for maintenance.  
Maintenance replaced the gaskets and returned the equipment to Operations for service.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 4/26/2019 12:08pm

End Date & Time: 4/26/2019 1:07pm

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	45	314 deg @ 17 mph
2		
3		
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operators conducted an investigation of the wind bin area and identified the source of the emissions was a known LDAR leak on tower S4D4.

**Actions Taken to Reduce Emissions:** The source was repaired within the timelines of the LDAR program.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 5/3/2019 08:51

End Date & Time: 5/3/2019 15:05

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	36	145° at 9.0 mph
2	42	145° at 9.0 mph
3	33	164° at 12 mph
4	44	144° at 10 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: MSS activities were being performed on valves on equipment located on the west side of Block 8

Actions Taken to Reduce Emissions: Operations followed MSS procedures, clearing equipment prior to opening it to atmosphere.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 5/9/2019 04:31

End Date & Time: 5/9/2019 12:15

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	37	210° at 10 mph
2	28	196° at 12 mph
3	47	202° at 9 mph
4	70	216° at 4 mph
5	38	198° at 9 mph
6	71	214° at 4 mph
7	43	191° at 9 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: There was an LDAR Leak that was being cleared to the flare for repair

Actions Taken to Reduce Emissions: Preparation for repair was underway

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 5/16/2019 00:37

End Date & Time: 5/16/2019 3:23

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	36	198° at 4 mph
2	46	187° at 3 mph
3	85	183° at 3 mph
4	31	182°, no wind speed indication

\*Attach Additional pages of data if necessary

Potential Sources Identified: Seal Pot Leak was discovered and isolated for repairs

Actions Taken to Reduce Emissions: Service request was written, equipment was isolated for repairs and seal pot filled with water.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒



## Final Report

### Fenceline Response

Start Date & Time: 5/19/2019 06:16

End Date & Time: 5/19/2019 10:25

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	40	201° at 9 mph
2	40	197° at 9 mph
3	49	206° 8 mph
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** There was an extended period of time during which the Fenceline monitor indicated Bd concentration >25 ppb. During that time, operations personnel investigated to find the potential source. Much of the time it was believed to be from a neighboring industrial sediment pond off site. On the 19<sup>th</sup>, personnel discovered a leaking head gasket, which they isolated for repair. The elevated values continued, but no other sources were discovered. Styrene concentrations were sporadic during this time.

**Actions Taken to Reduce Emissions:** The pressure on the equipment was reduced and was prepared for repair.

**Reason No Action Was Taken:** NA

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Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

## Final Report Fenceline Response

**Start Date & Time:** 5/25/2019 22:00

**End Date & Time:** 5/26/2019 00:00

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	30	164° at 6 mph
2	328	169° at 6 mph
3	25	153° at 8 mph
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** There was an extended period of time during which the Fenceline monitor indicated Bd concentration >25 ppb. During that time, operations personnel investigated to find the potential source. Much of the time it was believed to be from a neighboring industrial sediment pond off site. On the 25<sup>th</sup>, personnel discovered a leak on a coaleser gasket, which they isolated for repair. The elevated values continued intermittently. Styrene concentrations were sporadic during this time.

**Actions Taken to Reduce Emissions:** Repaired the coaleser

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report Fenceline Response

**Start Date & Time:** 5/27/2019 10:32

**End Date & Time:** 5/27/2019 00:00

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	47	200° at 12 mph
2	45	217° at 11mph
3	47	183° at 12 mph
4	28	190° at 9 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** There was an extended period of time during which the Fenceline monitor indicated Bd concentration >25 ppb. During that time, operations personnel investigated to find the potential source. Much of the time it was believed to be from a neighboring industrial sediment pond off site. On the 27<sup>th</sup>, personnel discovered a leak on a strainer head gasket, which they isolated for repair. The elevated values continued intermittently. Styrene concentrations were sporadic during this time.

**Actions Taken to Reduce Emissions:** Switched tower service, repaired gasket

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report

### Fenceline Response

Start Date & Time: 6/1/9/2019 16:35

End Date & Time: 6/1/2019 23:20

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	51	41 °at 6.0 mph
2	131	238° at 7.0 mph
3	167	193° at 6.0 mph
4	116	229° at 7 mph
5	88	234° at 6 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** The wind switched to within the windbin at approximately 18:30, with a high BD concentration. A filter bank was found to be leaking. It had been isolated previously, but a valve was leaking by, allowing the filter bank to emit VOC

**Actions Taken to Reduce Emissions:** The equipment was purged to the compressor until the isolation and repair could be performed.

**Reason No Action Was Taken:** NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒



## Final Report Fenceline Response

Start Date & Time: 6/12/2019 21:30

End Date & Time: 6/12/2019 22:30

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	56	201° at 6 mph
2		
3		
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operator found a leaking fitting in the rail loading area. The leak was stopped.

**Actions Taken to Reduce Emissions:** Stopped the leak when discovered.

**Reason No Action Was Taken:** NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

# Final Report

## Fenceline Response

Start Date & Time: 7/22/2019 13:20

End Date & Time: 7/21/2019 14:01

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	528	195.0° at 6.7 MPH
2	364	219.4 ° at 8.0 MPH
3	0	228° at 8.3 MPH
4		

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** The fenceline monitor indicated a sharp increase in BD concentration beginning at 13:20 and lasting until 14:01, when it abruptly dropped to zero

**Actions Taken to Reduce Emissions:** Investigated the event. Cleaned strainer per procedure and returned to service.

**Reason No Action Was Taken:** NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

# Final Report

## Fenceline Response

Start Date & Time: 8/5/2019 10:45

End Date & Time: 8/5/2019 11:50

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	69.9	243.2° at 5 mph
2	81	254.9° at 4 mph
3	17.2	269° at 5 mph
4	5	283.4° at 5 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: The South flare was smoking. Monitoring indicated low Btu content.

Actions Taken to Reduce Emissions: Cut back on some of the systems venting and added more steam, which eliminated the smoking.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☒ No ☐ Additional data sheet

**Final Report, Fenceline Response (*Con't*)**

	Concentration (ppbv)	Wind Direction & Speed (MPH)
5	3	247° at 4 mph
6	89.9	283.8° at 3.8 mph
7	108	222° at 3 mph
8	34.8	173.6° at 11 mph
9	18	198.3° at 7 mph
10		
11		
12		
13		
14		
15		





## Final Report Fenceline Response

Start Date & Time: 8/9/2019 08:50 AM

End Date & Time: 8/9/2019 13:35 PM

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	1	225° at 6 mph
2	222	237° at 10 mph
3	29	229° at 8 mph
4	53	214° at 7 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** While preparing equipment, 6G186, for MSS activities, operator noticed a leak from a bleeder valve.

**Actions Taken to Reduce Emissions:** Operator immediately blocked it in valve.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☒ No ☐

**Is there additional data attached?** Yes ☒ No ☐ Additional fenceline data

**Final Report, Fenceline Response (*Con't*)**

	Concentration (ppbv)	Wind Direction & Speed (MPH)
5	56	247° at 9.0 mph
6	0	231° at 10.0 mph
7	64	203° at 9.0 mph
8	41	241° at 9.0 mph
9	34	224° at 10.1 mph
10	19	235° at 10.0 mph
11	24	214° at 8 mph
12	77	226° at 11 mph
13	15	249° at 8 mph
14	35	257° at 10.9 mph
15	20	254° at 7.9 mph
16	16	204° at 7 mph
17	37	241° at 6.2 mph
18	1	208° at 9 mph
19	34	200° at 6.5 mph
20	10	233° at 9.2 mph

# Final Report

## Fenceline Response

Start Date & Time: 8/16/2019 16:20

End Date & Time: 8/16/2019 17:10

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	24	77° at 4.7 mph
2	40	81° at 6 mph
3	79	104° at 4 mph
4	54	115° at 4.0 mph
5	18	103° at 6 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Train moving in area. Air Liquide s/d. They had a leak on nat gas component. TPC lowering to minimum rates, dynamic operating conditions

**Actions Taken to Reduce Emissions:** Controlled shutdown of process in response to Air Liquide S/D

**Reason No Action Was Taken:** NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

# Final Report

## Fenceline Response

Start Date & Time: 08/19/2019 08:50

End Date & Time: 08/19/2019 10:20

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	448	229°at 4 mph
2	805	259°at 6 mph
3	480	232°at 6 mph
4	234	270°at 4 mph
5	102	262°at 4.8 mph
6	60	252°at 8.8 mph
7	23	217°at 6 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: Performing MSS on strainers and installing blinds

Actions Taken to Reduce Emissions: Performed MSS preparation per procedure

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

# Final Report

## Fenceline Response

Start Date & Time: 8/27/2019 8:05 AM

End Date & Time: 8/27/2019 8:35 AM

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	64	214° at 7 mph
2	25	196° at 7.7 mph
3	11	194° at 7.3 mph
4		

\*Attach Additional pages of data if necessary

Potential Sources Identified: MSS Activities to purge Exchanger Bundle to the flare and then pull it per procedure.

Actions Taken to Reduce Emissions: Operators wet the exchanger down as it was being cleaned on the pad.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☐ No ☒

# Final Report

## Fenceline Response

**Start Date & Time:** 8/27/2019 13:05

**End Date & Time:** 8/28/2019 09:20

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	26	85° at 8 mph (Site 2)
2	27	98° at 9.7 mph (Site 2)
3	31	231° at 3.0 mph (Site 4)
4	27	10° at 6 mph (Site 6)
5	30	350° at 4.1 mph (Site 6)
6	20	329° 7 mph (Site 6)

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Changing wind caused the LDAR leak to impact three of the Sites. LDAR leak on a distillation tower. First attempts were not successful. TPC determined the tower needed to be shutdown to make the repair. Air Liquide also shutdown due to boiler feedwater level.

**Actions Taken to Reduce Emissions:** The first attempt to drill the valve was not successful. The process was shutdown following the procedure.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report Fenceline Response

**Start Date & Time:** 9/3/2019 18:20

**End Date & Time:** 9/4/2019 00:30

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	35	86° at 8.1 mph
2	46	81° at 9.0 mph
3	97	85° at 3 mph
4	27	98° at 4 mph
5	25	98° at 4 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operations personnel identified a potential source associated with a bundle cleaning project that was ongoing.

**Actions Taken to Reduce Emissions:** Operations personnel sprayed the bundle with water and followed procedure to minimize emissions

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒

## Final Report Fenceline Response

**Start Date & Time:** 9/5/2019 01:35

**End Date & Time:** 9/5/2019 03:05

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	27	338° at 2.0 mph
2	129	324° at 2.0 mph
3	78	326° at 2.0 mph
4	52	324° at 2.0 mph
5	39	300° at 2.0 mph
6	43	291° at 2.0 mph
7	22	306° at 3 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** There was Maintenance activity associated with cleaning a bundle that was identified as a potential source on the TPC site.

**Actions Taken to Reduce Emissions:** Operations personnel followed procedures to minimize potential emissions.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☐ No ☒



# Final Report

## Fenceline Response

Start Date & Time: 9/5/2019 19:00

End Date & Time: 9/6/2019 06:35

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	43	222° at 8.0 mph
2	51	231° at 8.0 mph
3	69	232° at 5.0 mph
4	72	233° at 7.0 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** While purging S2F8, Operations personnel discovered a leak at a sight glass. They continued to purge the equipment and repaired the leak.

Additional readings attached.

**Actions Taken to Reduce Emissions:** The equipment was in the process of being shutdown when leak was discovered. Operations personnel contacted Maintenance and LDAR to repair the leak at the sight glass.

**Reason No Action Was Taken:** NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☒ No ☐



**Final Report, Fenceline Response (*Con't*)**

	Concentration (ppbv)	Wind Direction & Speed (MPH)
5	61	242° at 7.0 mph
6	70	237° at 6.0 mph
7	64	243° at 5.0 mph
8	33	253° at 4.0 mph
9	27	247° at 4.0 mph
10	18	250° at 4.0 mph
11	26	317° at 3.8 mph
12	27	311° at 3.0 mph
13	0	282° at 4.8 mph
14		
15		

# Final Report

## Fenceline Response

Start Date & Time: 9/12/2019 02:50

End Date & Time: 9/12/2019 05:20

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	59	74° at 6.1 mph
2	26	88° at 6.0 mph
3	55	68° at 5.1 mph
4	73	77° at 4.1 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: Maintenance activities associated with cleaning a bundle  
may have been a potential source for the butadiene.

Actions Taken to Reduce Emissions: Operations personnel followed the procedure,  
spraying the bundle with water to minimize the emissions as the equipment was cleaned.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☒ No ☐

**Final Report, Fenceline Response (*Con't*)**

	Concentration (ppbv)	Wind Direction & Speed (MPH)
5	87	84° at 5.0 mph
6	125	87° at 4.1 mph
7	32	82° at 7.0 mph
8	30	86° at 6.1 mph
9	26	94° at 4.1 mph
10	18	83° at 6.0 mph
11		
12		
13		
14		
15		

# Final Report

## Fenceline Response

Start Date & Time: 09/27/2019 05:35

End Date & Time: 09/27/2019 07:50

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	14846	145° at 4.0 mph
2	11847	156° at 6.0 mph
3	475	186° at 3.0 mph
4	149	163° at 6.0 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** There was a Reportable Emissions event that occurred when a connection on a valve in BD service failed. The event was reported to the NRC and to agencies via STEERS . Please note: the times on these reports are Central Standard Time. The RQ event occurred from 04:00 AM to 04:20 AM.

**Actions Taken to Reduce Emissions:** Operations personnel took immediate steps to isolate and purge the line. It was isolated by 4:20

**Reason No Action Was Taken:** NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☒ No ☐



**Final Report, Fenceline Response (*Con't*)**

	Concentration (ppbv)	Wind Direction & Speed (MPH)
5	118	128° at 3.0 mph
6	83	112° at 3.0 mph
7	53	112° at 4.0 mph
8	48	115° at 4.0 mph
9	40	116° at 4.0 mph
10	5	116° at 3.0 mph
11		
12		
13		
14		
15		



## Final Report Fenceline Response

Start Date & Time: 10/3/2019 22:35

End Date & Time: 10/4/2019 04:45

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	39	41° at 6 mph
2	0	45° at 5 mph
3	45	47° at 4 mph
4	32	49° at 5 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operations personnel notified LDAR contractors. No definitive source was identified, although leaking components were identified.

Actions Taken to Reduce Emissions: Operations personnel investigated the area and identified elevated concentrations, but were unable to find leak, contacted LDAR technicians. The LDAR technicians did not identify a definitive source. All leaks identified were addressed consistent with the TPC Fugitive Emissions Program.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☐

Is there additional data attached? Yes ☒ No ☐

**Final Report, Fenceline Response (*Con't*)**

	Concentration (ppbv)	Wind Direction & Speed (MPH)
5	33	44° at 4 mph
6	24	48° at 4 mph
7	32	26° at 5 mph
8	14	21° at 4 mph
9	3	2° at 3 mph
10	61	50° at 5 mph
11	9	356° at 7 mph
12	53	39° at 4 mph
13	15	44.2° at 5.02 mph
14	20	21° at 4.03 mph
15	38	44.8° at 4.04 mph
16	47	42.9° at 6 mph
17	6	31° at 5 mph
18	69	44.1° at 5 mph
19	49	11.8° at 5.2 mph
20	38	52° at 5 mph
212	40	43° at 4 mph
22	10	42.2° at 5.9 mph
23	27	51° at 4 mph
24	3	34.2° at 5.9 mph





## Final Report Fenceline Response

Start Date & Time: 10/16/2019 11:20 Hours

End Date & Time: 10/16/2019 16:55 Hours

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	109.4	28° at 6.0 mph
2	127.2	34.6° at 10.1 mph
3	140.7	8° at 9.0 mph
4	67	21.3° at 4.2 mph

\*Attach Additional pages of data if necessary

Potential Sources Identified: Maintenance activities were being conducted on an exchanger per procedure.

Actions Taken to Reduce Emissions: Maintenance activities were conducted following TPC Procedure.

Reason No Action Was Taken: N/A

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☒ No ☐

**Final Report, Fenceline Response (Con't)**

	Concentration (ppbv)	Wind Direction & Speed (MPH)
5	87.6	14° at 7 mph
6	98	36.7° at 6.1 mph
7	124	44.9° at 8.9 mph
8	39	54° at 8 mph
9	206	51° at 10 mph
10	30	59° at 8 mph
11	0	44° at 7 mph
12	33	343° at 14.7 mph
13	49	29° at 6 mph
14	47	4.2° at 14.2 mph
15	72	5° at 11 mph
16	33	18° at 7 mph
17	21	11.2° at 15 mph
18	16	6.3° at 9.9 mph
19	52	8.8° at 14.4 mph
20	11	11.7° at 8.2 mph
21	9	280.7° at 9.8 mph
22	30	10° at 14 mph
23	6	335° at 9 mph

## Final Report Fenceline Response

**Start Date & Time:** 10/16/2019 20:20 Hours

**End Date & Time:** 10/16/2019 22:50 Hours

	Concentration (ppbv)	Wind Direction & Speed (MPH)
1	43	16.8° at 6.7 mph
2	74	44.3° at 6 mph
3	33	48.1° at 6.6 mph
4	17	17.4° at 4.4 mph

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Maintenance activities were being conducted to clear a line back to a tank

**Actions Taken to Reduce Emissions:** Maintenance activities were conducted following TPC Procedure.

**Reason No Action Was Taken:** N/A

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☐ No ☒

**Is there additional data attached?** Yes ☒ No ☐

**Final Report, Fenceline Response (*Con't*)**

	Concentration (ppbv)	Wind Direction & Speed (MPH)
5	6	34.2° at 4.7 mph
6	72	34.3° at 6 mph
7	44	6.7° at 8.6 mph
8	66	30.5° at 3.8 mph
9	42	12.7° at 7.6 mph
10	31	4.8° at 8.3 mph
11	0	13° at 9.4 mph



## Final Report Fenceline Response

Start Date & Time: 10/17/2019 15:10

End Date & Time: 10/17/2019 21:25

	Concentration (ppbv)	Wind Direction, (Degrees)	Wind Speed (MPH)
1	45	49	7.0
2	2	56.4	5.9
3	0	41	4.0
4	0	31	5.1

\*Attach Additional pages of data if necessary

Potential Sources Identified: Operations personnel identified LDAR leaks as the potential source

Actions Taken to Reduce Emissions: The leaking LDAR components were identified and repaired consistent with the TPC LDAR program and procedures.

Reason No Action Was Taken: NA

Was a FLIR Camera Used to Identify Potential Sources? Yes ☐ No ☒

Is there additional data attached? Yes ☒ No ☐

**Final Report, Fenceline Response (Con't)**

	Concentration (ppbv)	Wind Direction, (Degrees)	Wind Speed (MPH)
5	26	34	6.0
6	11	24	5.0
7	40	41	7.0
8	42	6.9	7.0
9	24	15.4	7.0
10	39	37	7.0
11	28	1	8.0
12	13	5	8.0
13	33	8	8.0
14	42	10	6.0
15	17	9	8.0
16	28	6	7.0
17	40	9	8.0
18	35	8	10.0
19	30	19	5.0
20	34	9	10.0
21	40	7	6.0
22	37	6	7.0
23	38	48	5.0
24	40	51	8.0
25	1	30	4

# Final Report

## Fenceline Response

Start Date & Time: 10/22/2019 02:40

End Date & Time: 10/22/2019 19:10

	Concentration (ppbv)	Wind Direction, (Degrees)	Wind Speed (MPH)
1	33	5	8.0
2	29	7.8	6.3
3	4	10	10
4	46	1.6	7.4

\*Attach Additional pages of data if necessary

**Potential Sources Identified:** Operations personnel identified the source of the elevated concentrations to be the head of an exchanger. This was treated consistent with the TPC LDAR program. Attempts were made to repair it, but they were unsuccessful.

**Actions Taken to Reduce Emissions:** Several attempts were made to repair it. It was placed on Delay of Repair until the alternate exchangers can be brought on line, scheduled for completion the 2<sup>nd</sup> week of November.

**Reason No Action Was Taken:** NA

**Was a FLIR Camera Used to Identify Potential Sources?** Yes ☒ No ☐

**Is there additional data attached?** Yes ☒ No ☐

**Final Report, Fenceline Response (Con't)**

	Concentration (ppbv)	Wind Direction, (Degrees)	Wind Speed (MPH)
5	35	6.1	7.8
6	40	73.4	6.8
7	52	47.8	4.2
8	38	29.5	4.8
9	34	3	7.0
10	34	359	6.0
11	36	26	3.1
12	27	42.5	5.1
13	3	43.8	5.0
14	7	38	4.0
15	45	48.5	5.0
16	17	25	4.0
17	4	43	5.0
18	7	24	3.0
19	31	7.9	5.0
20	32	44	4.0
21	56	36.1	3.95
22	8	13	6.0
23	48	40.2	5.0
24	42	59	5.0
25	20	47.8	6.0
26	5	56	7
27	3	41.3	5.0
28	2	66	4.0
29	0	42	8.0



**Final Report, Fenceline Response (Con't)**

	Concentration (ppbv)	Wind Direction, (Degrees)	Wind Speed (MPH)
30	8	29	6.0
31	0	46.9	7.0
32	0	45	6.0
33	0	19	5.0
34	41	5	6.0
35	17	15.5	6.1
36	30	342	7.0
37	18	1	6.0
38	38	13	7.0
39	25	6.1	13.8
40	40	33	7.0
41	28	13.1	7.9
42	21	3	12.0
43	24	6.3	10.1
44	34	6	10.0
45	26	1.1	7.9
46	59	346	6.0
47	71	312	8.4
48	31	7	10.0
49	40	353	6.0
50	35	344	10.0
51	21	1	9.0
52	63	341	7.0
53	56	292.8	8.6
54	35	353	7.0
55	42	281	6.4
56	39	10	10.0

**Final Report, Fenceline Response (*Con't*)**

	Concentration (ppbv)	Wind Direction, (Degrees)	Wind Speed (MPH)
57	24	276	7.4
58	34	9	8.0
59	66	4.5	8.0
60	30	7	9.0
61	66	349	6.2
62	46	354	4.0
63	67	14	5.0
64	80	44	3.0
65	59	49.6	5
66	7	49	4.0