

# ***ISPRA***

## **APPENDICE 2**

*Trends emissivi camini "area a caldo" aggiornati al I semestre 2022*

*Dati di produzione aggiornati al I semestre 2022*

*Trends delle emissioni diffuse totali aggiornati al 2021*

***TAVOLA 1: Cokerie***

***TAVOLA 2: Agglomerato***

***TAVOLA 3: Acciaierie***

***TAVOLA 4: Altoforni***

***TAVOLA 5: Produzione di acciaio ed emissioni diffuse***

***TAVOLA 6: Produzione dai reparti agglomerato e cokeria***



***Settembre 2022***

## **APPENDICE 2**

Trends emissivi Camini Area a caldo

Dati di produzione e emissioni diffuse totali nello stabilimento

**TAVOLA 1:** Cokerie (Camini E424, E425, E428, E435, E437)

**TAVOLA 2:** Agglomerato (E312, E314b, E315b, E324 e E325)

**TAVOLA 3:** Acciaierie (E525, E525b, E551b e E551c)

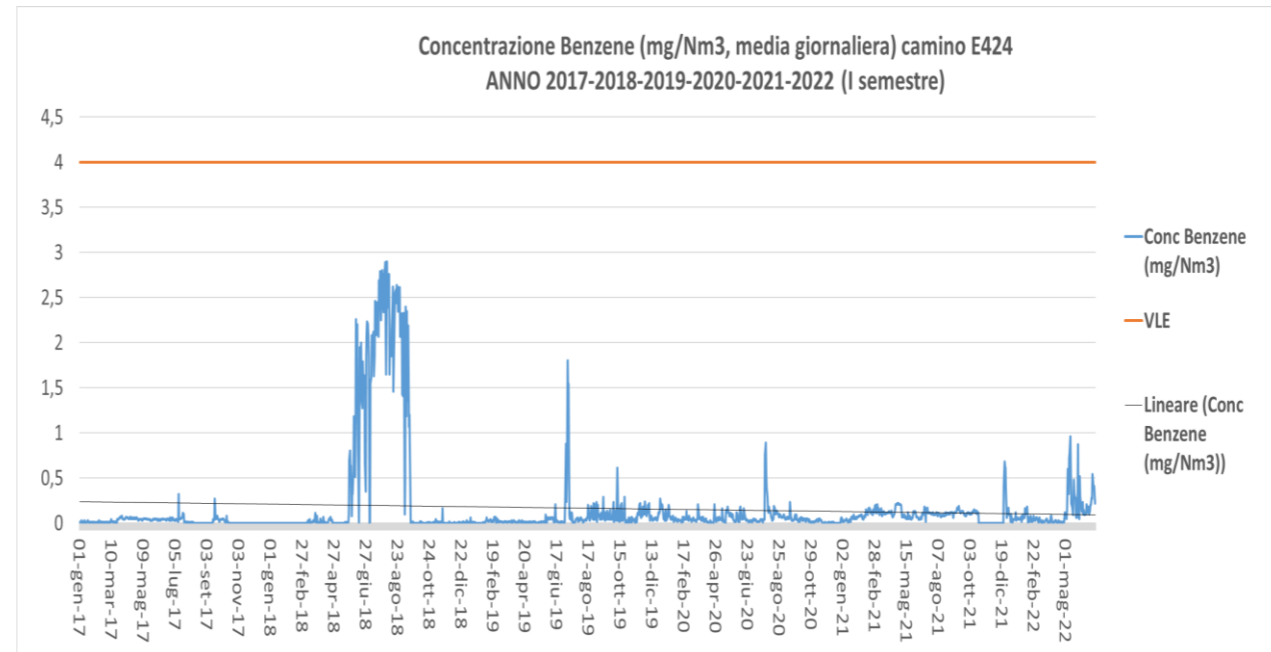
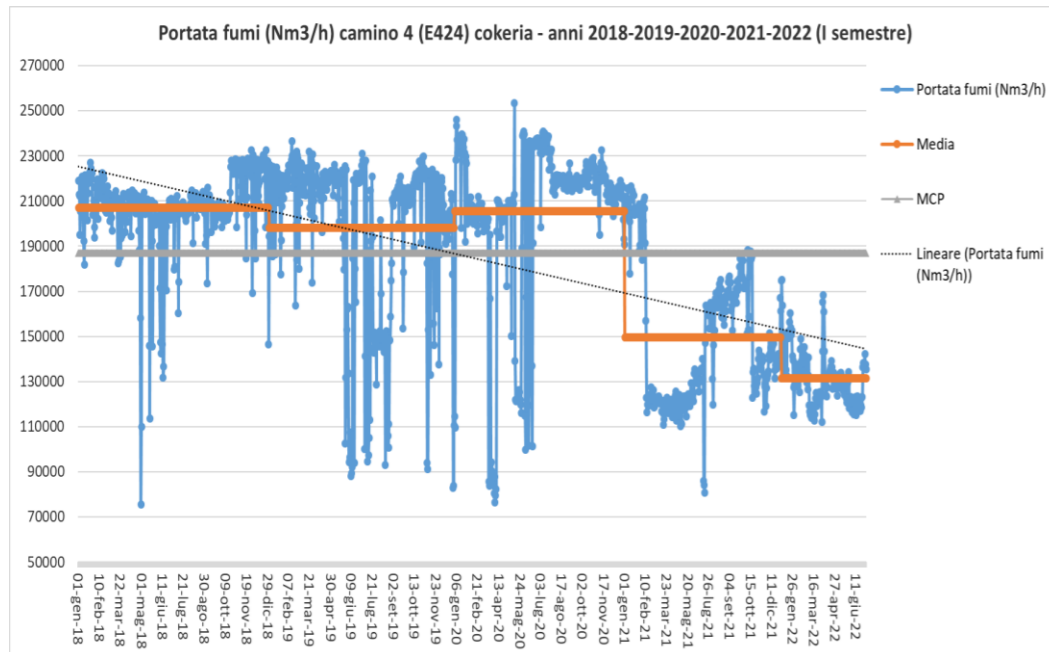
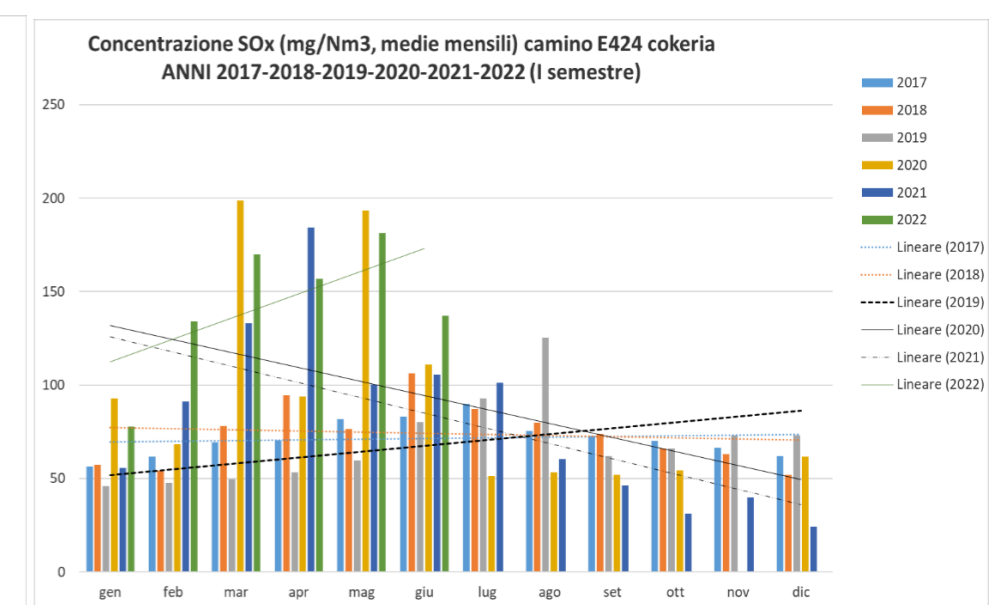
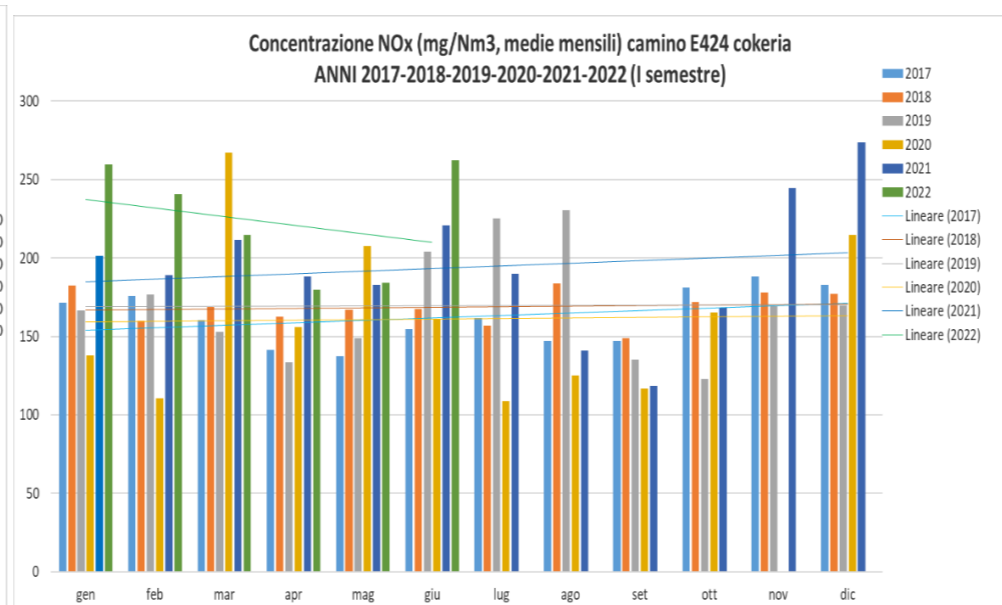
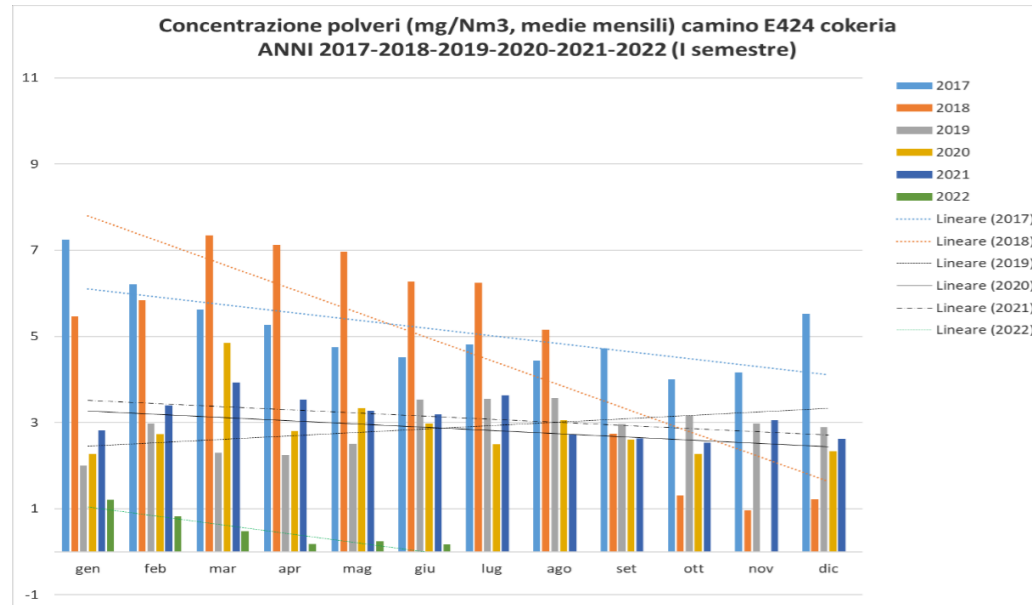
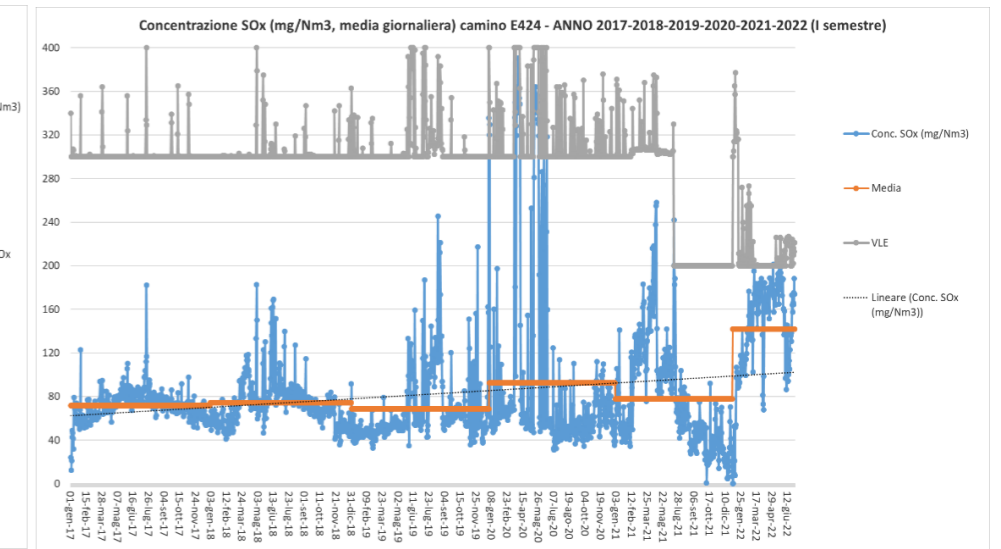
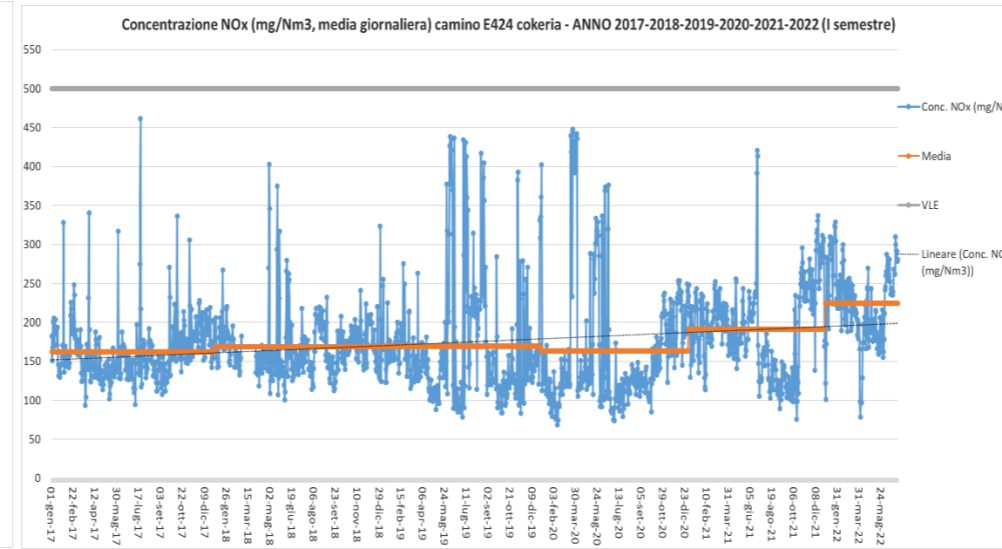
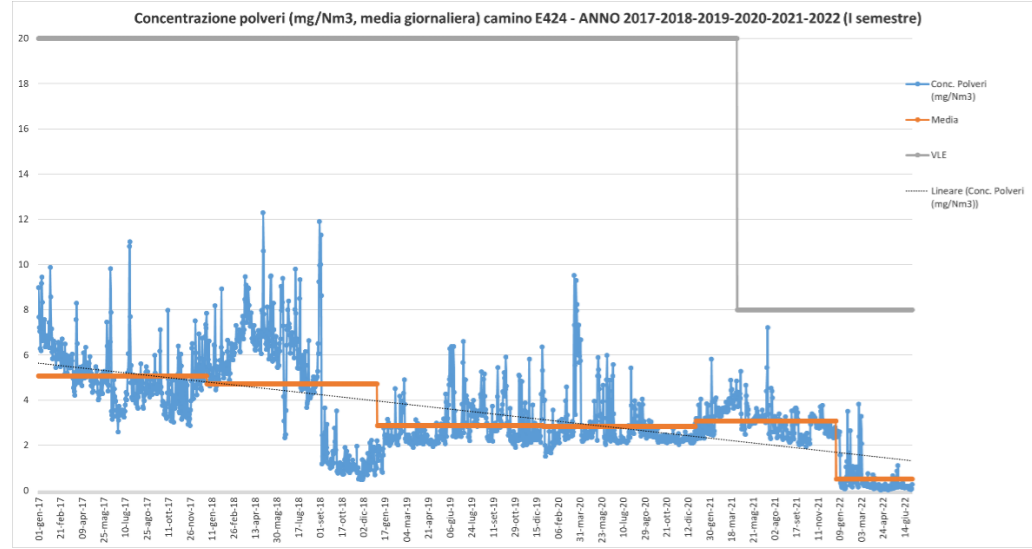
**TAVOLA 4:** Altoforni (E102b, E103b, E109, E111, E112, E114, E134, E 135 e E137)

**TAVOLA 5:** Produzione di acciaio e emissioni diffuse totali nello stabilimento

**TAVOLA 6:** Produzione Agglomerato e Coke

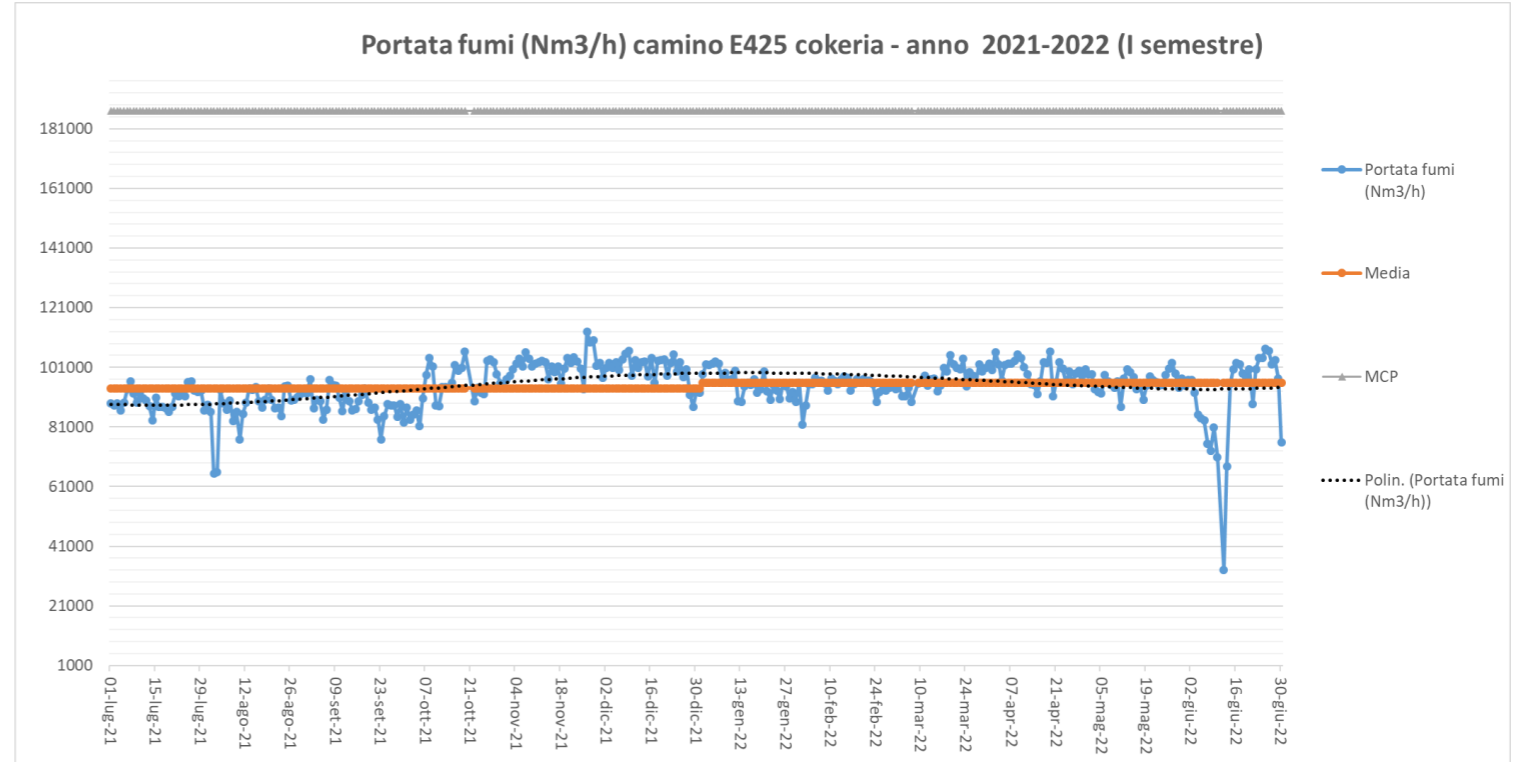
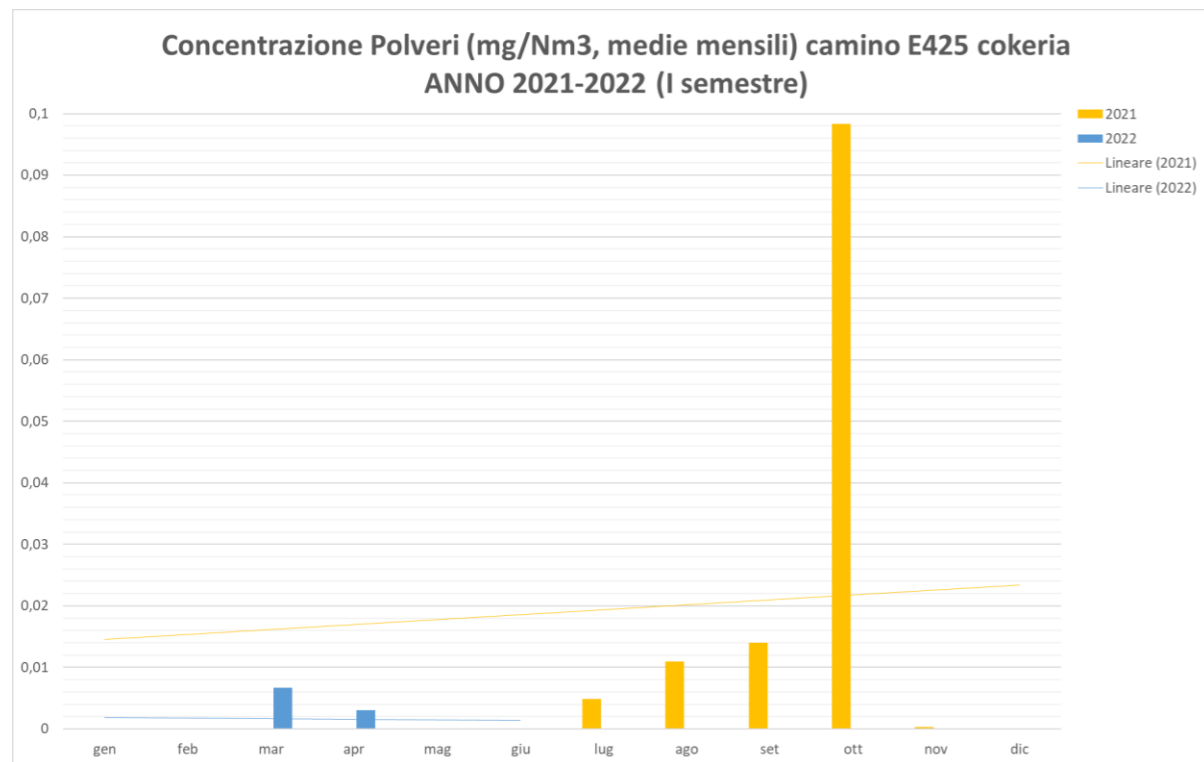
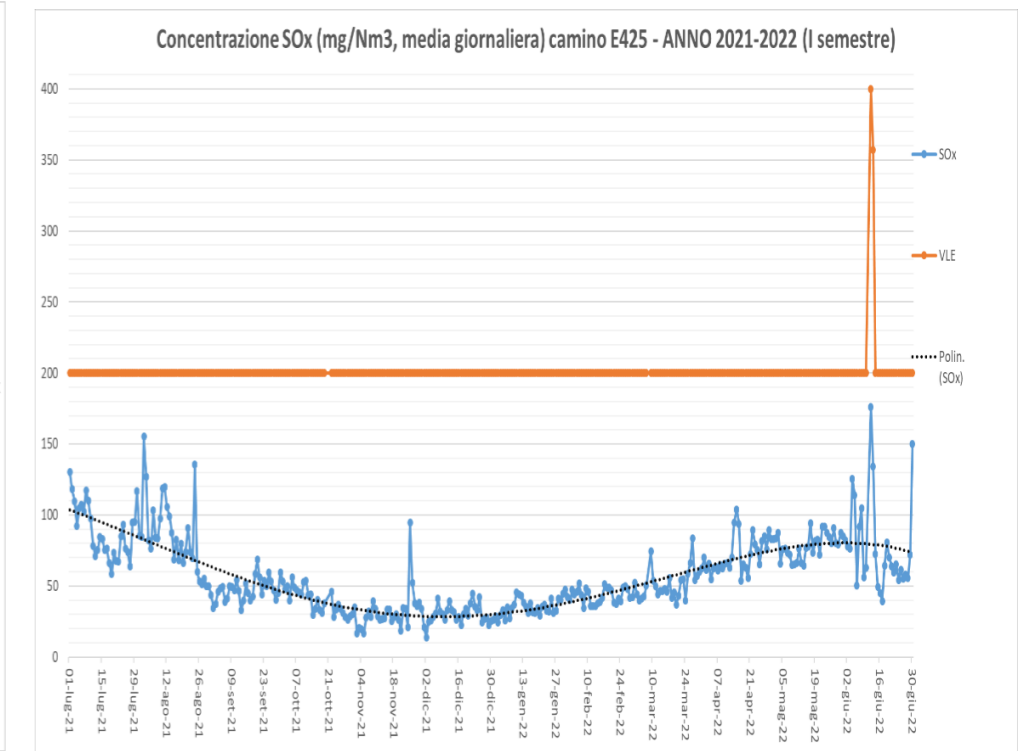
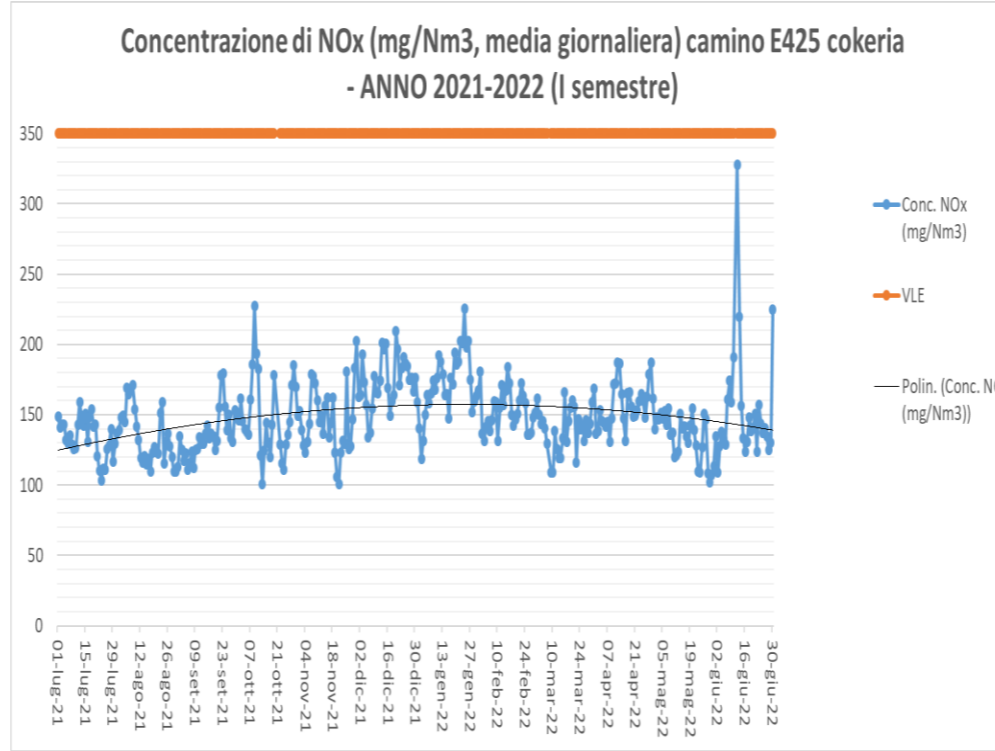
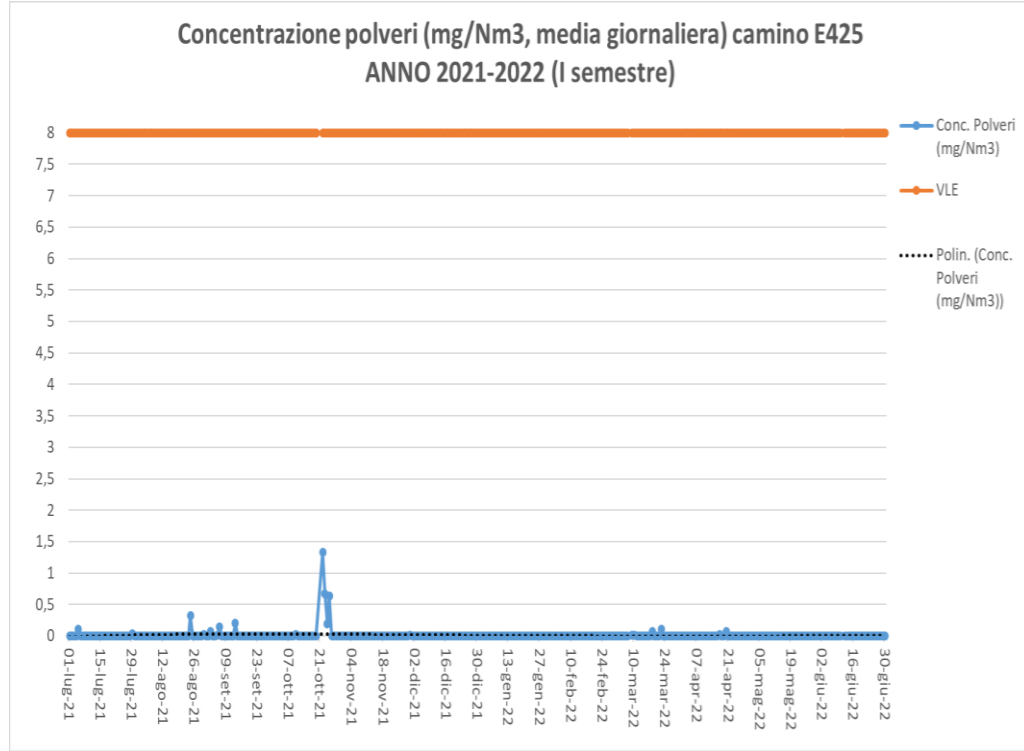
**TAVOLA 1 - Camini cokeria  
E424, E425, E428, E435, E437**

# Camino E424

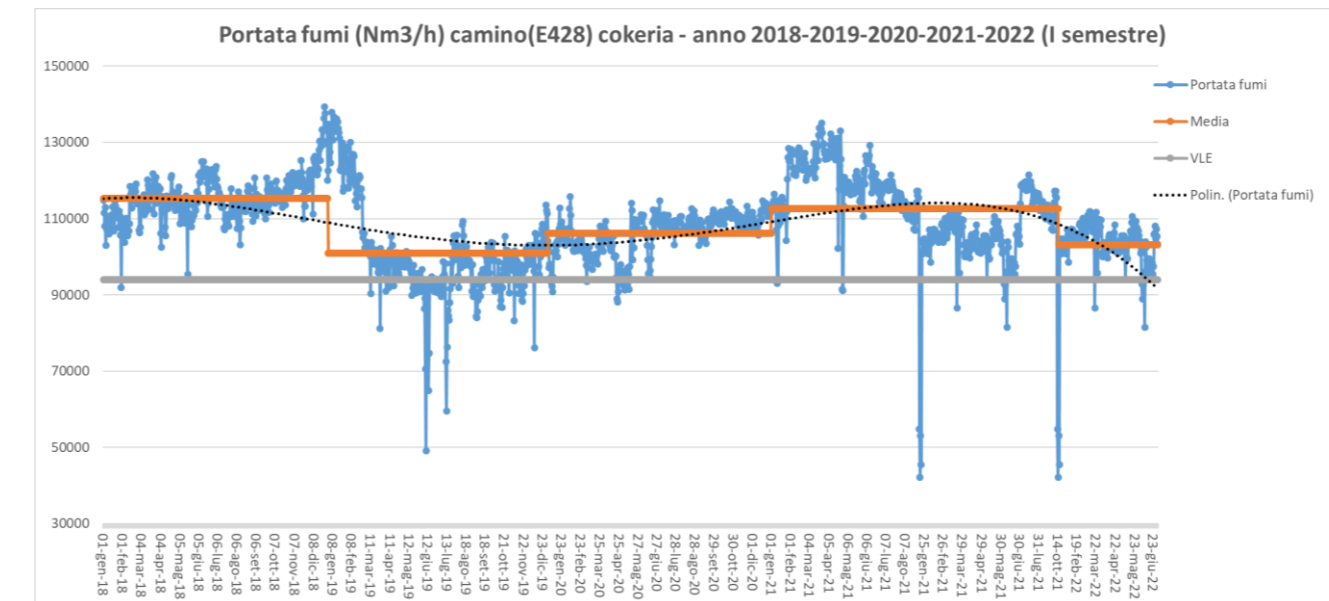
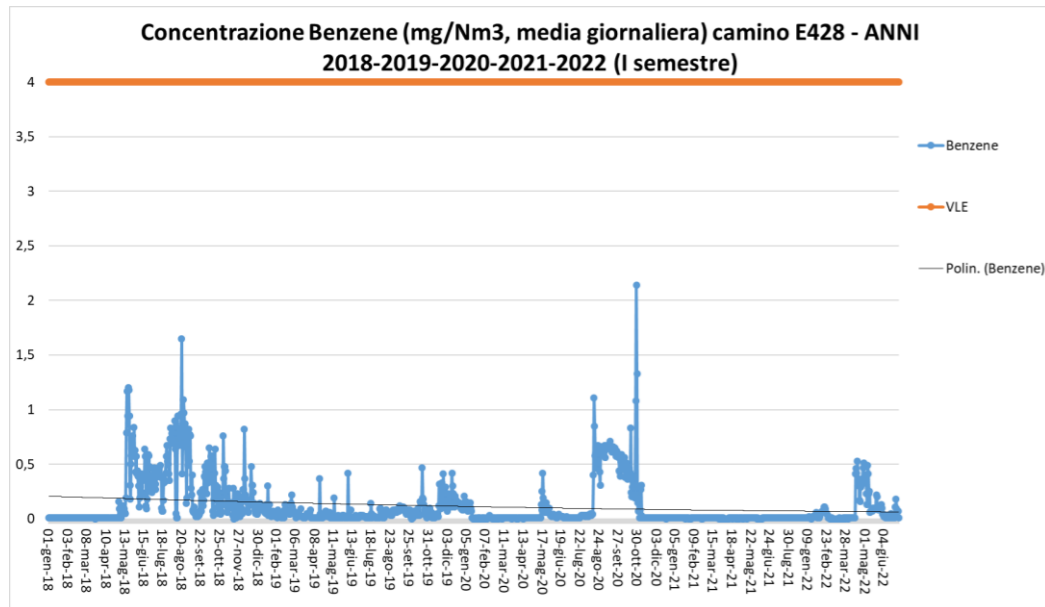
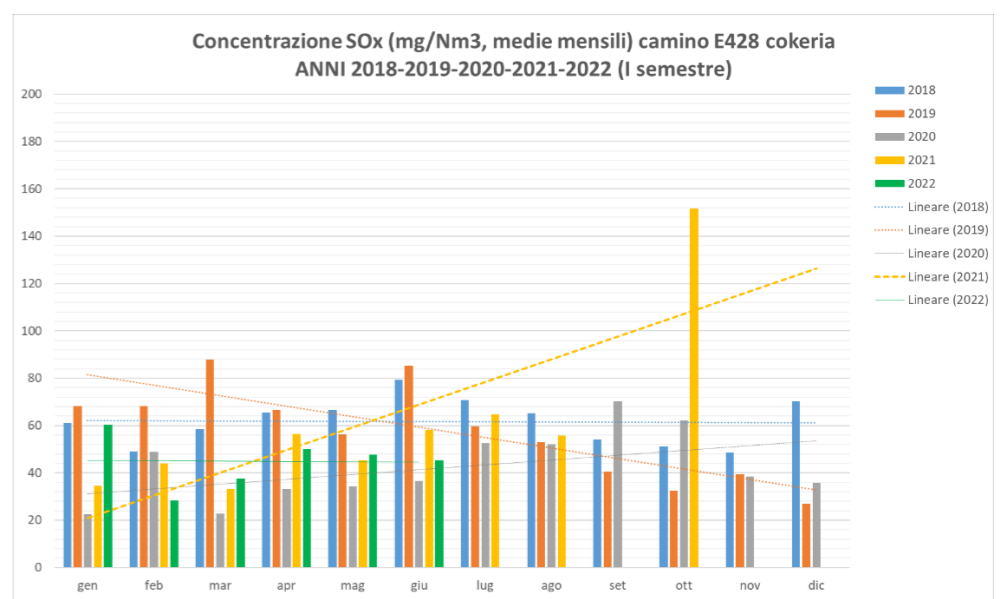
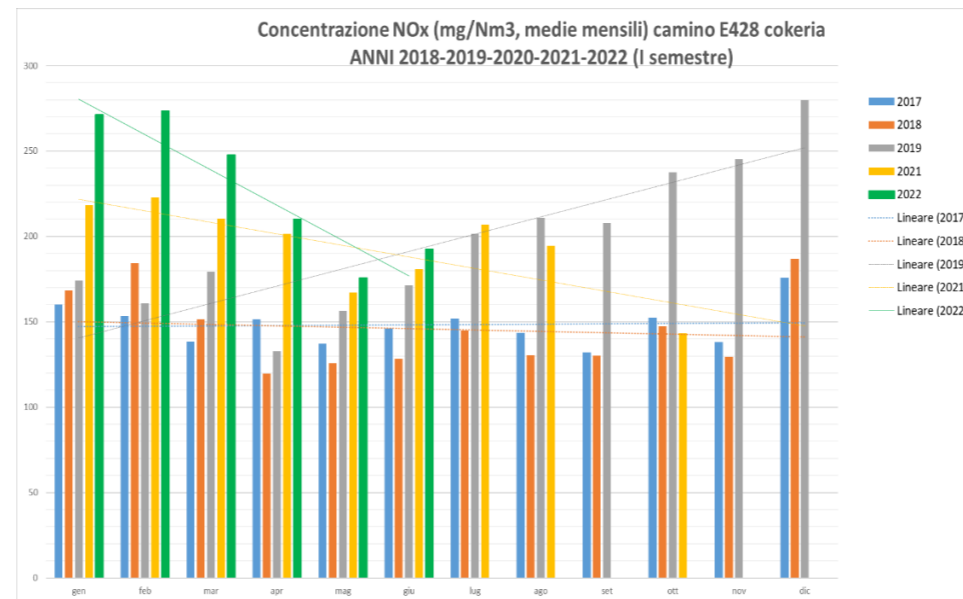
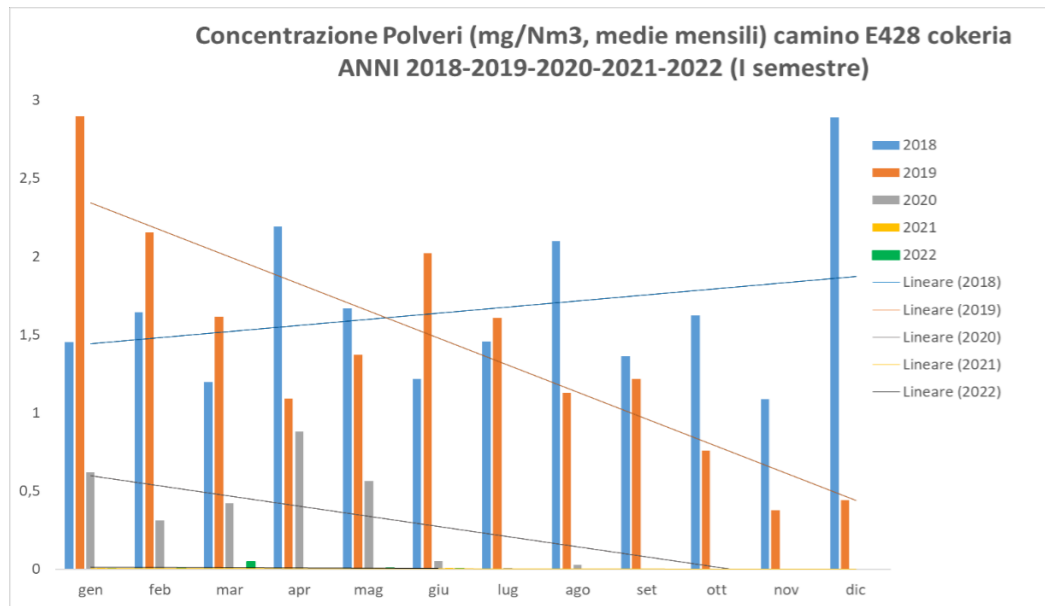
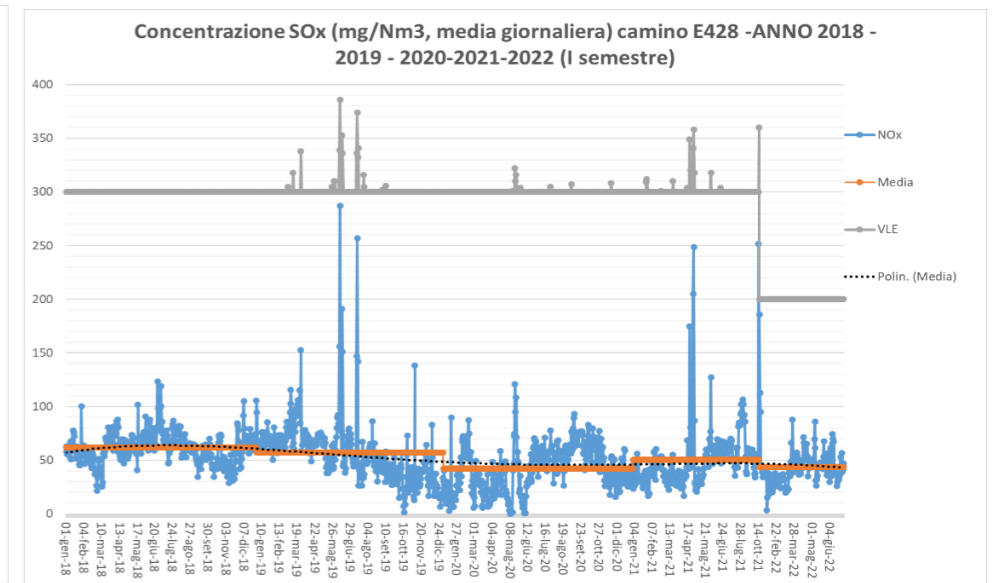
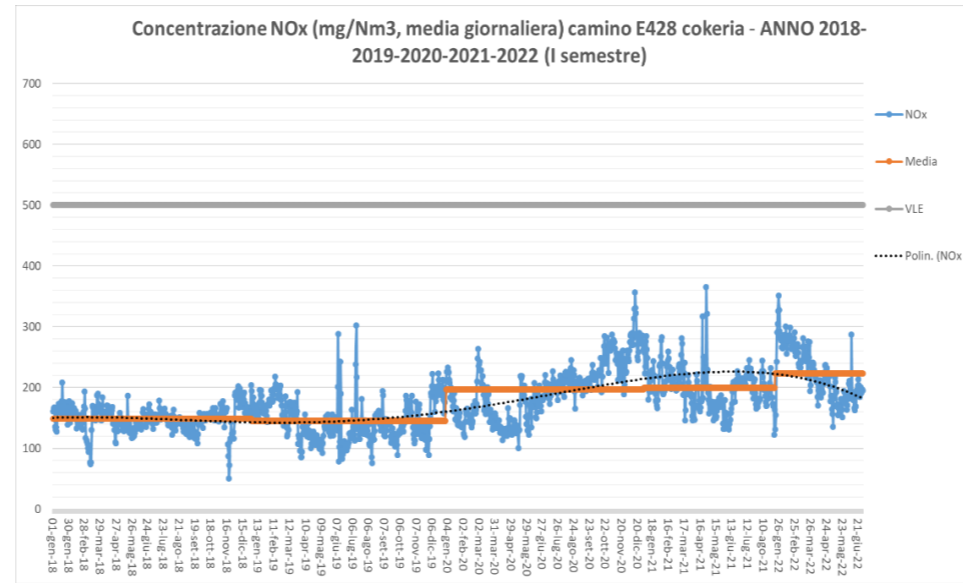
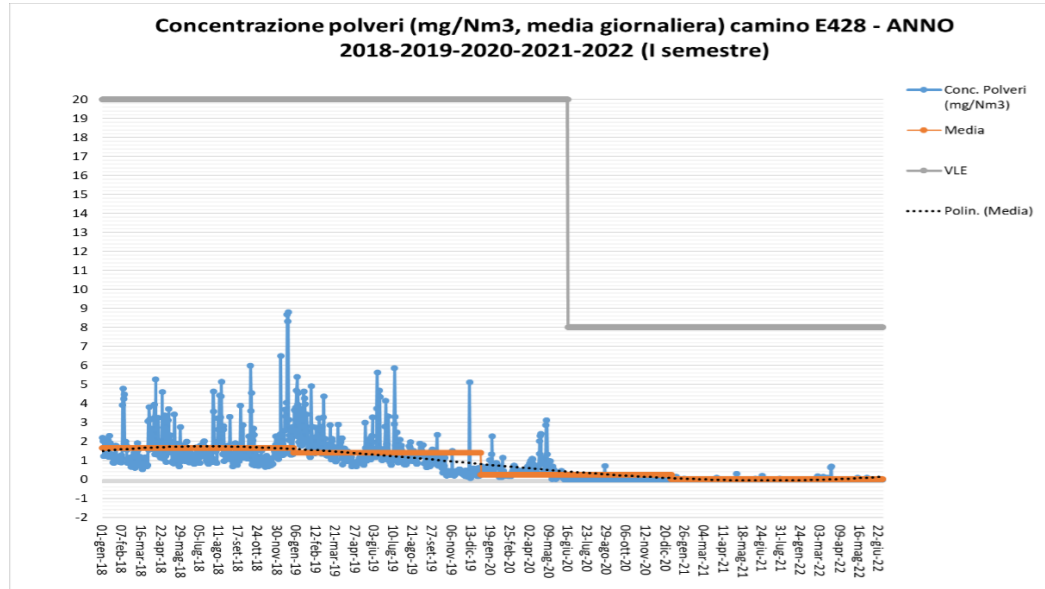




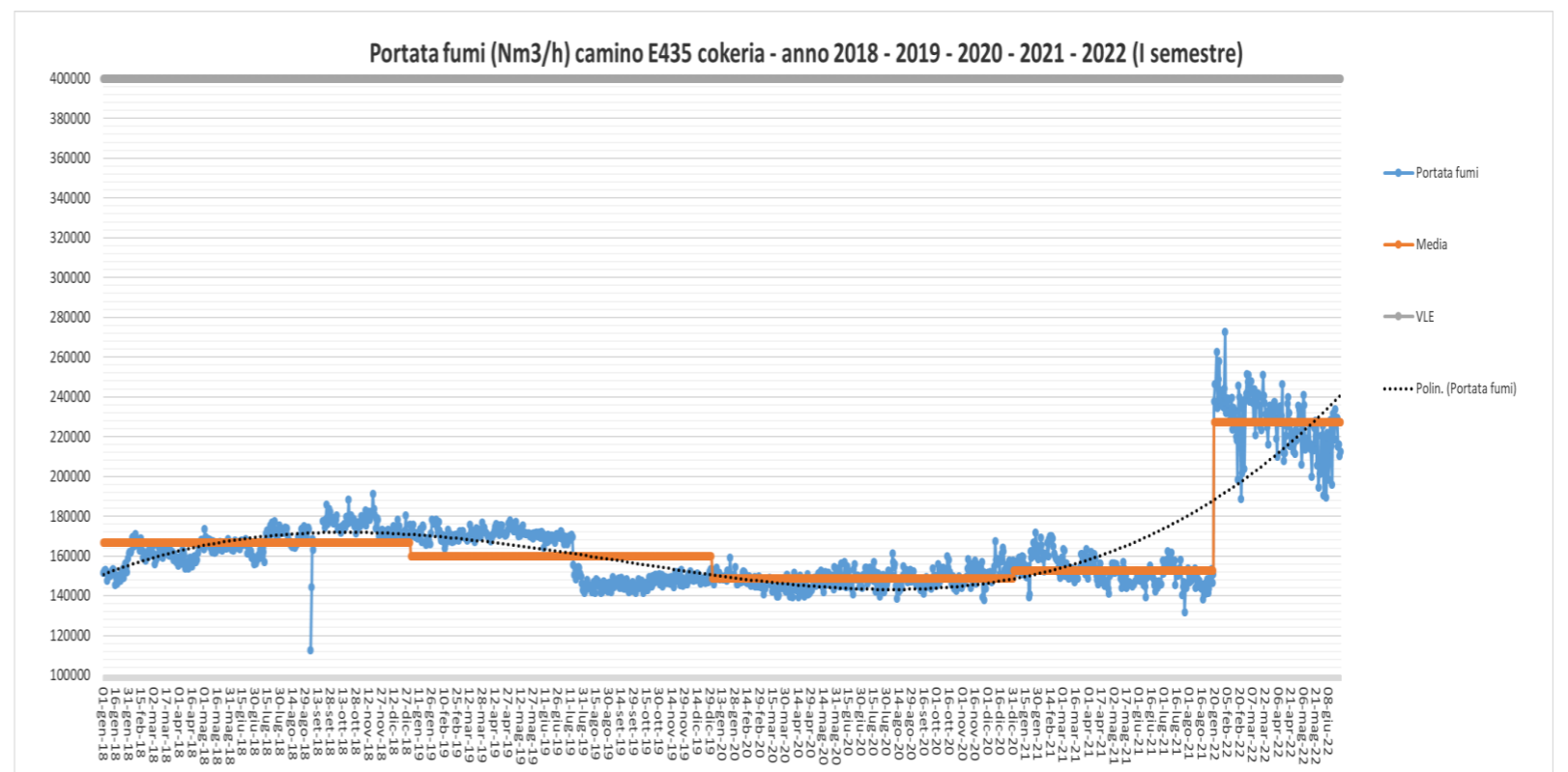
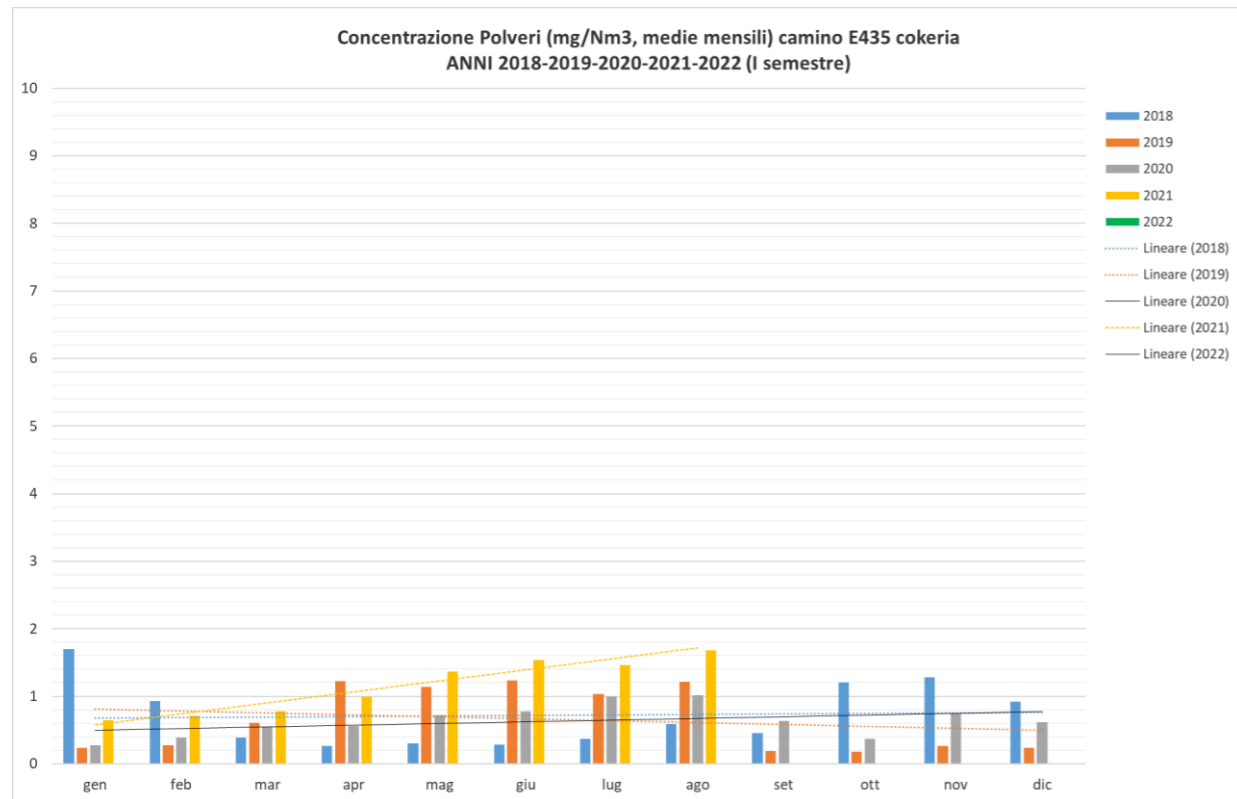
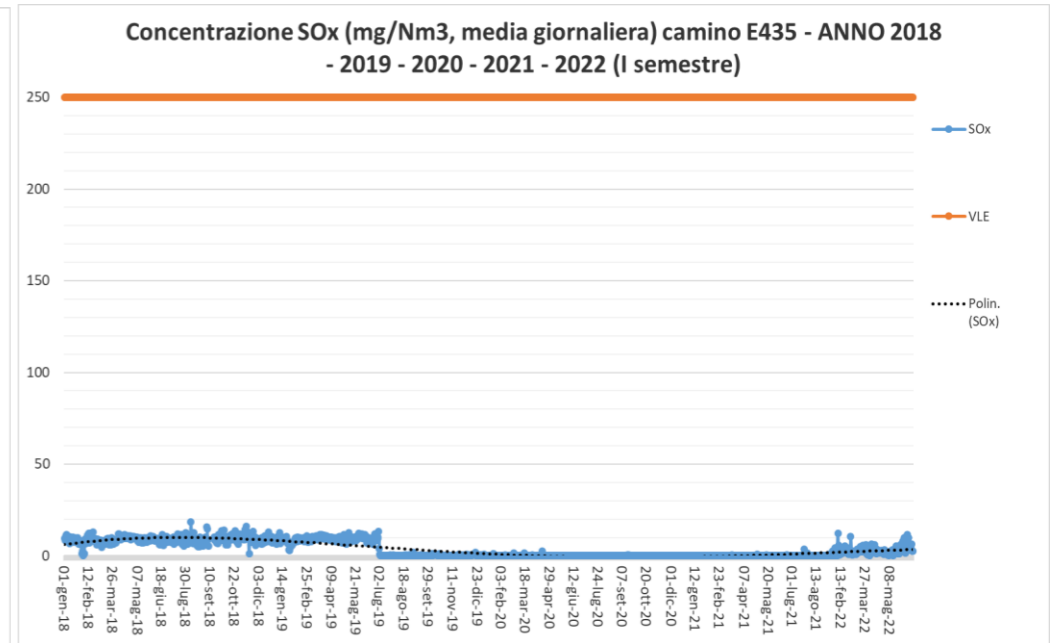
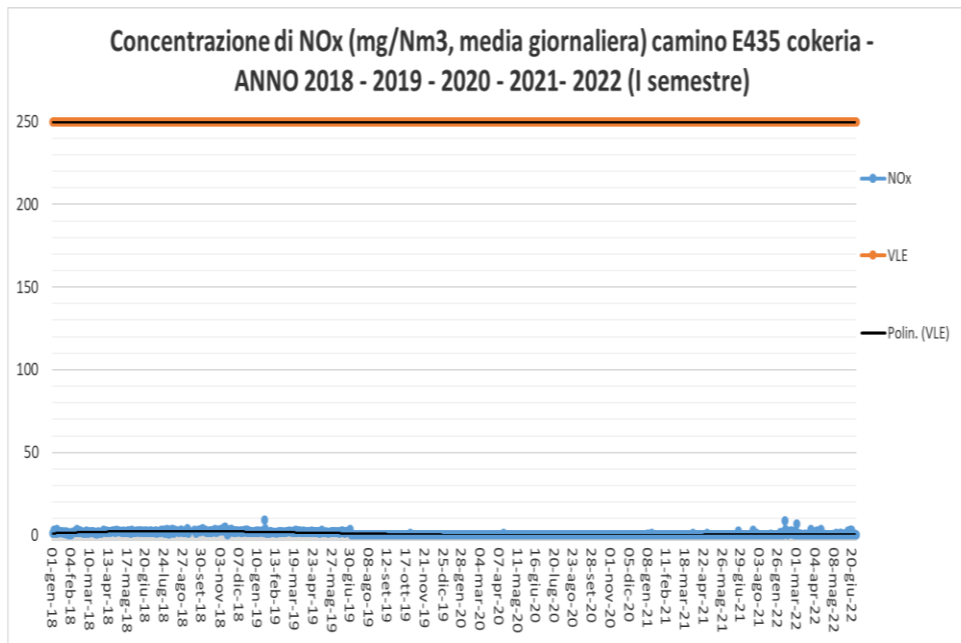
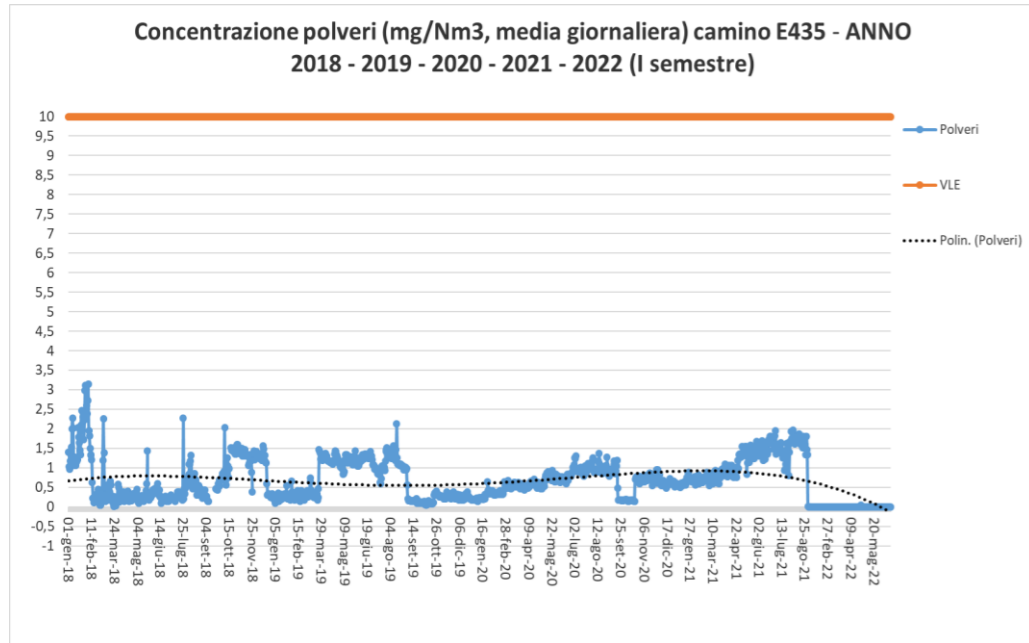
### Camino E425



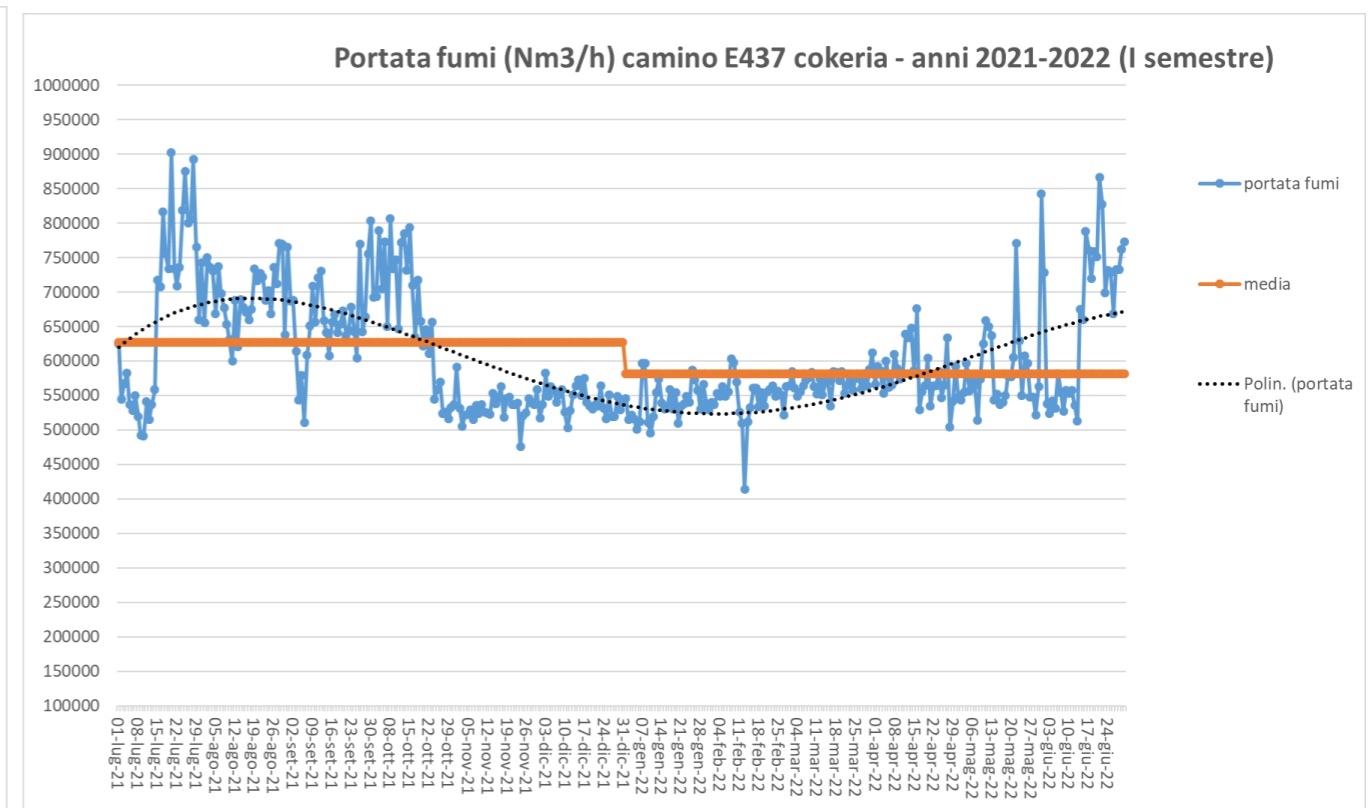
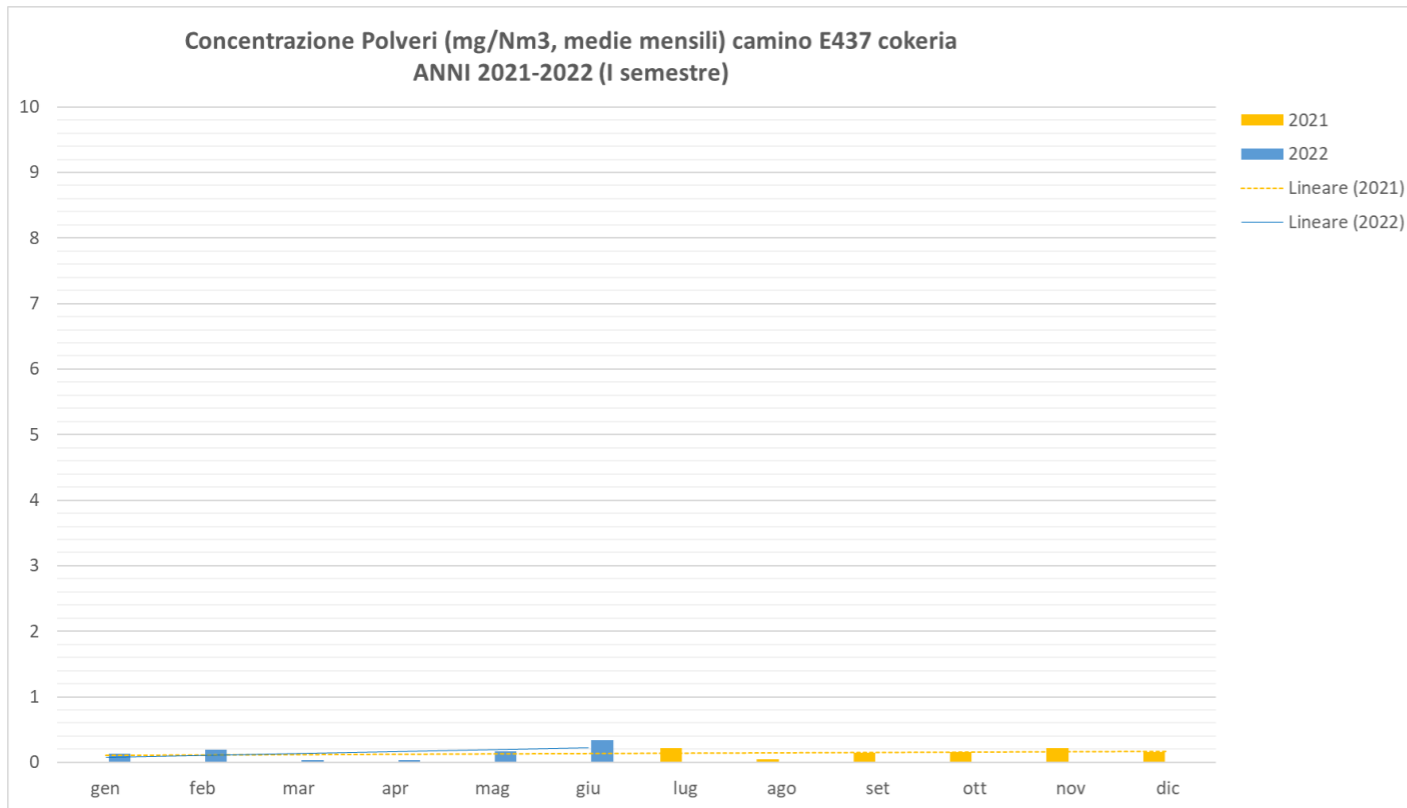
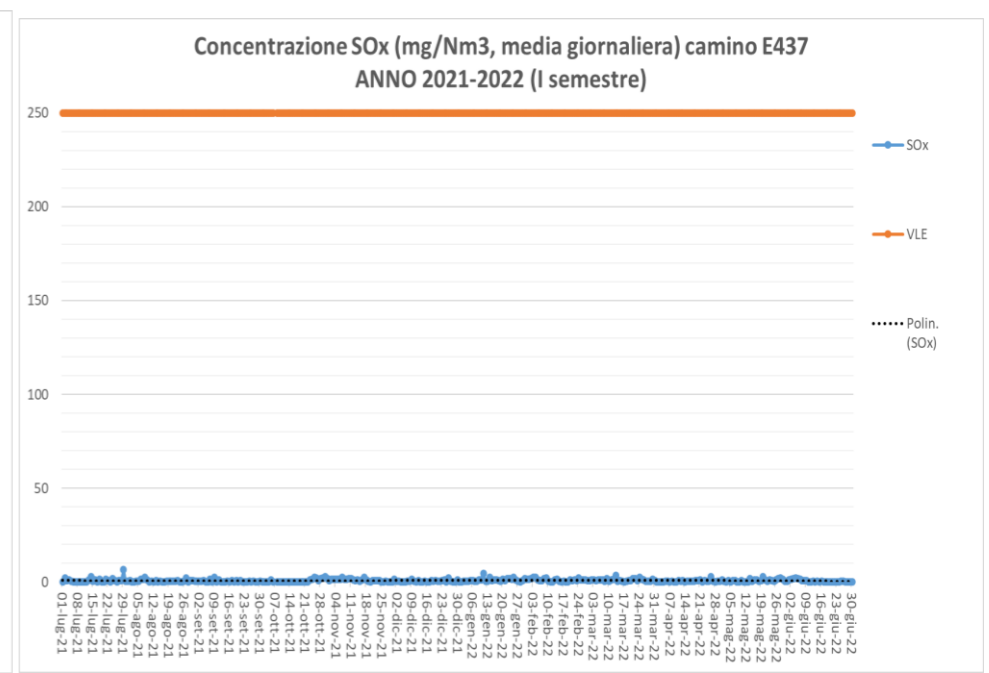
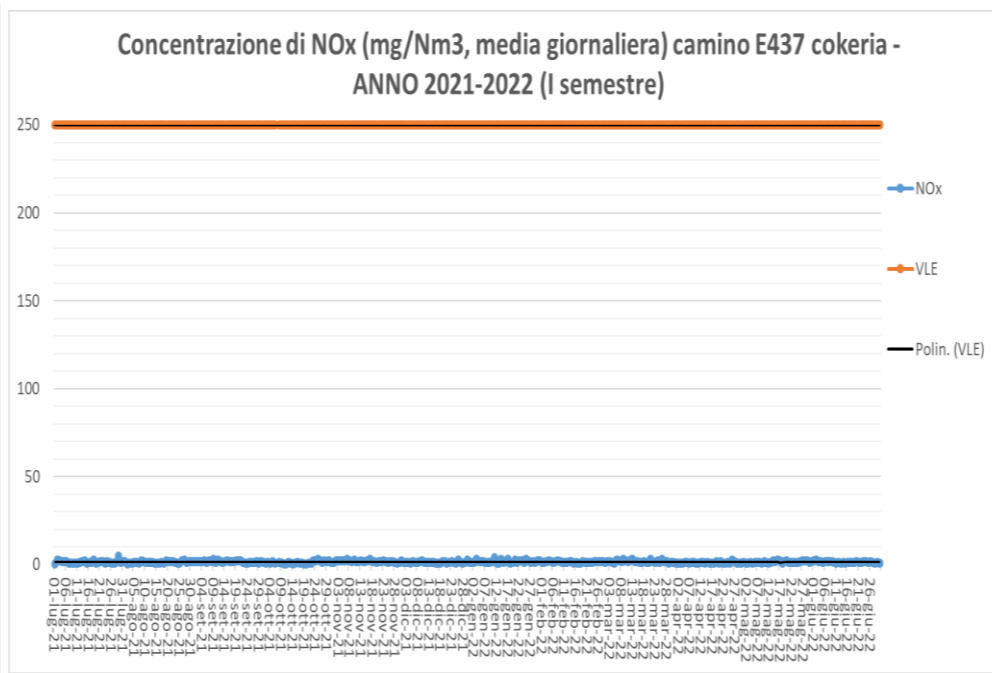
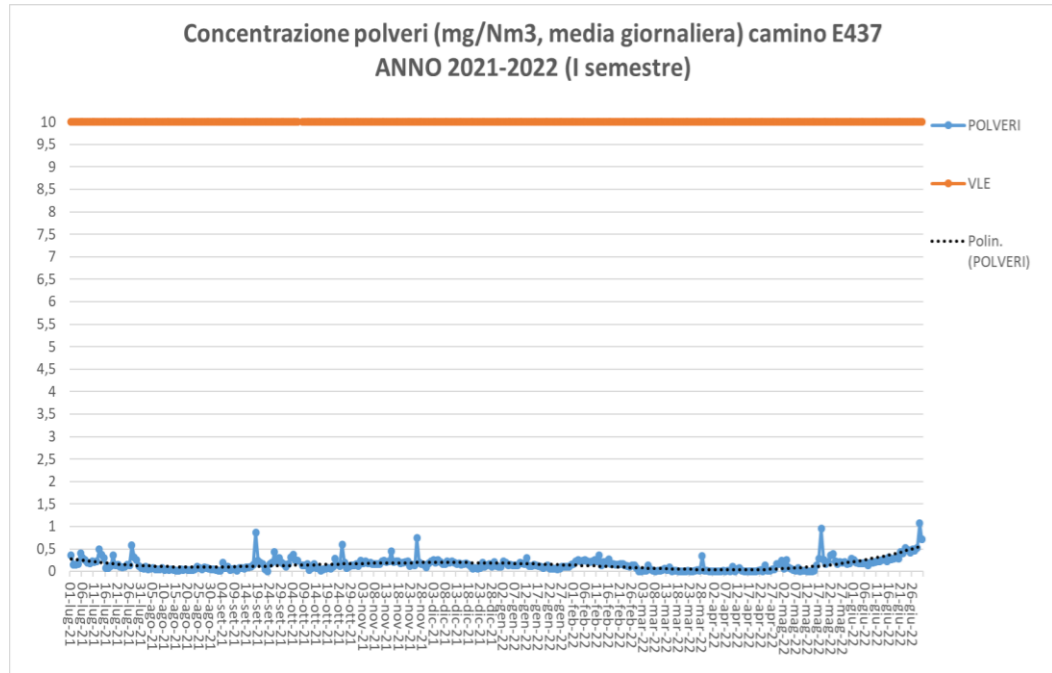
## Camino E428



### Camino E435



### Camino E437

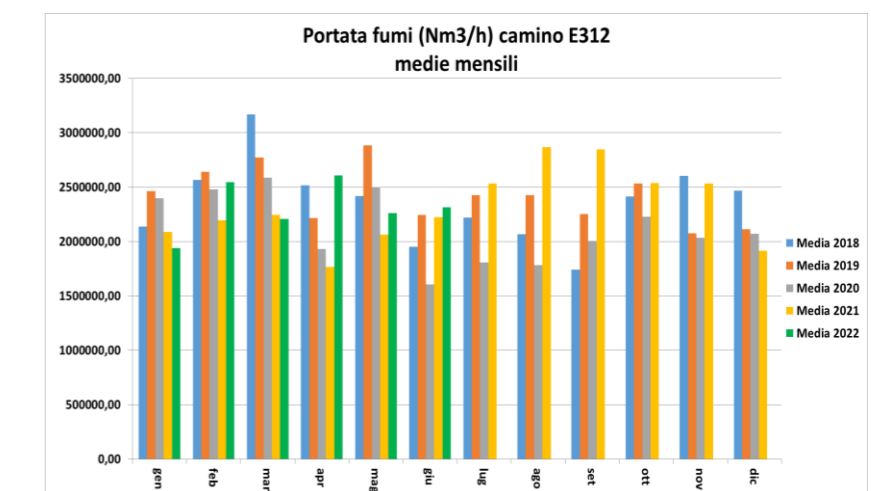
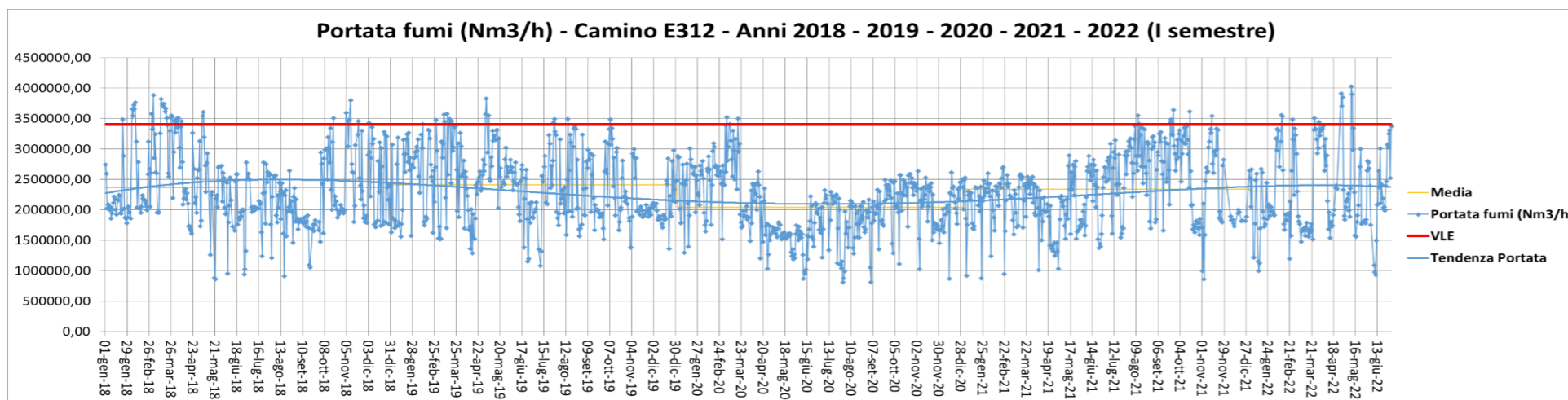
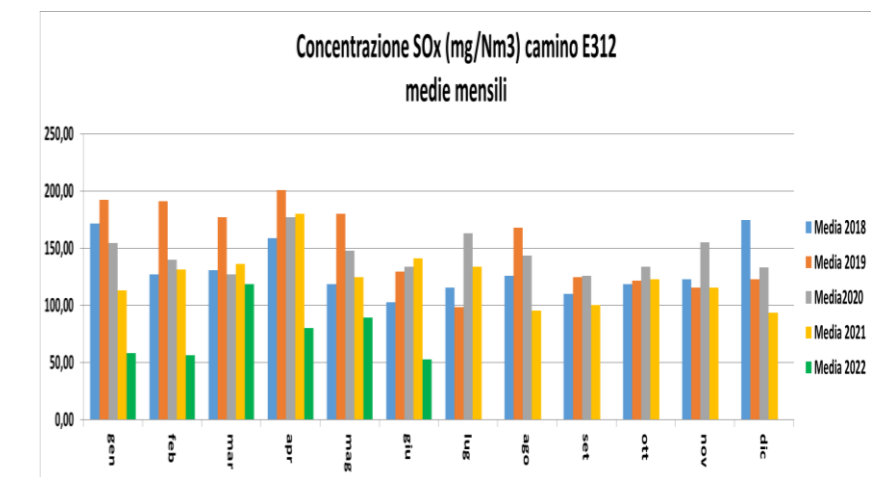
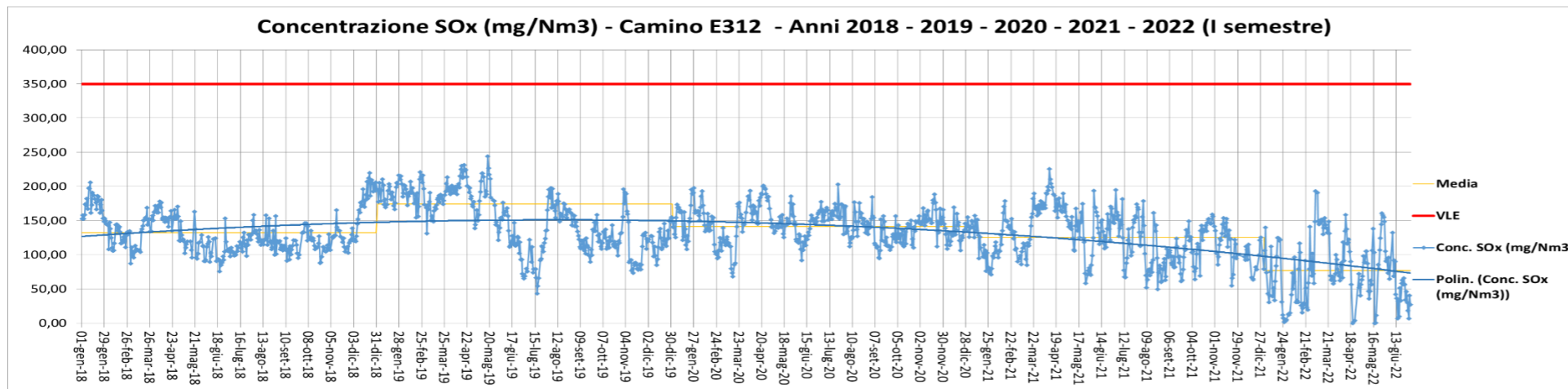
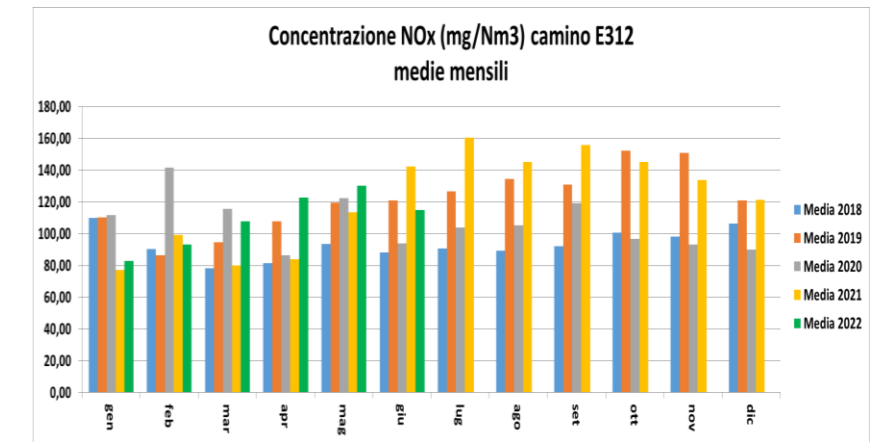
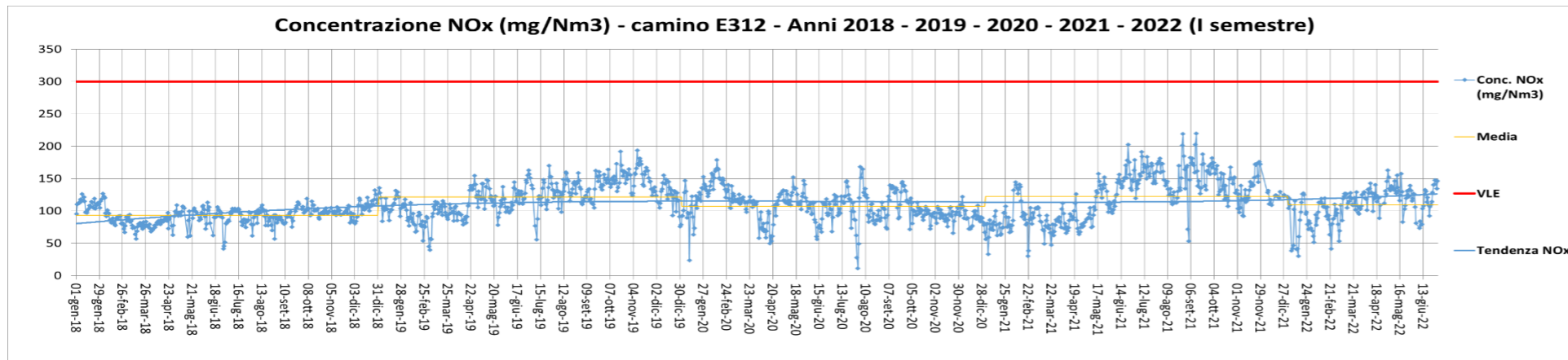
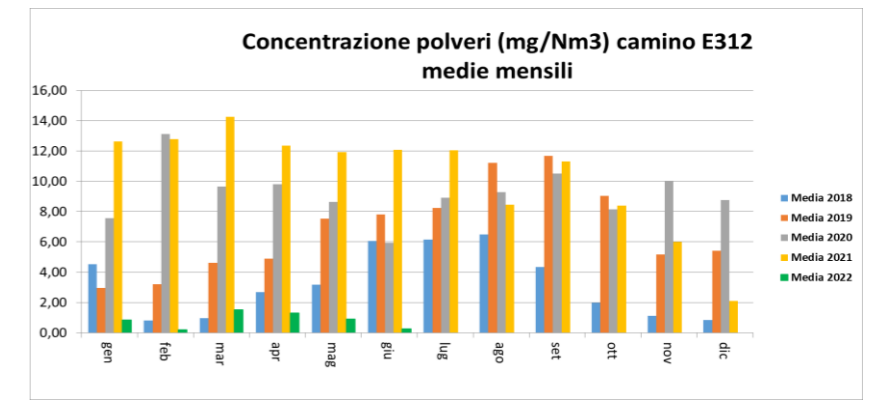
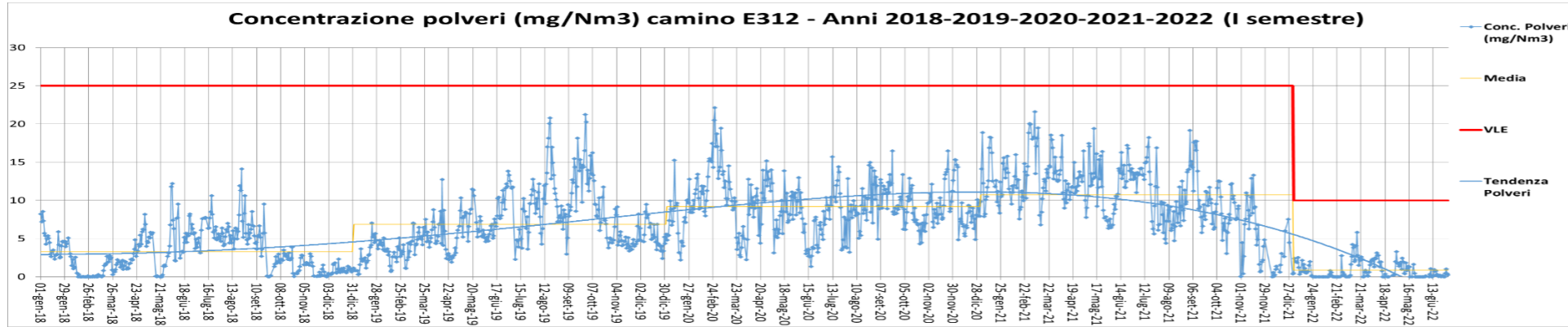


**TAVOLA 2 Camini area agglomerato**

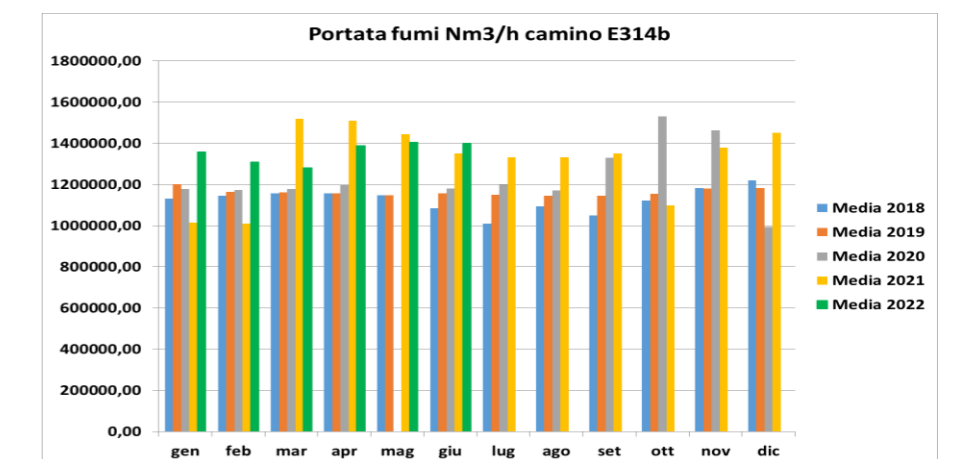
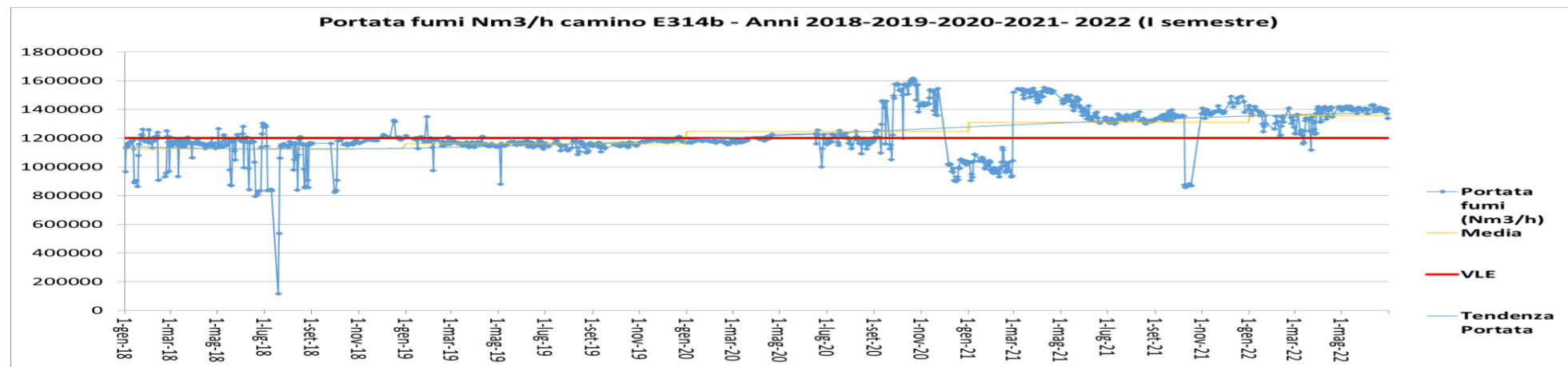
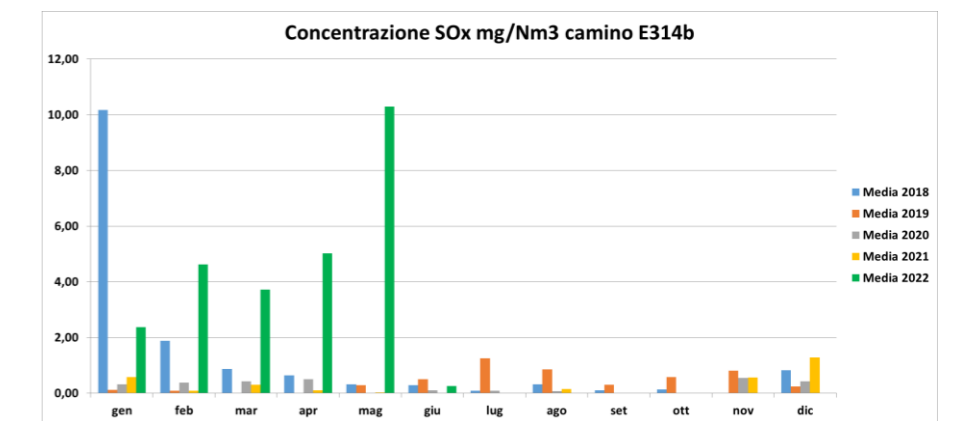
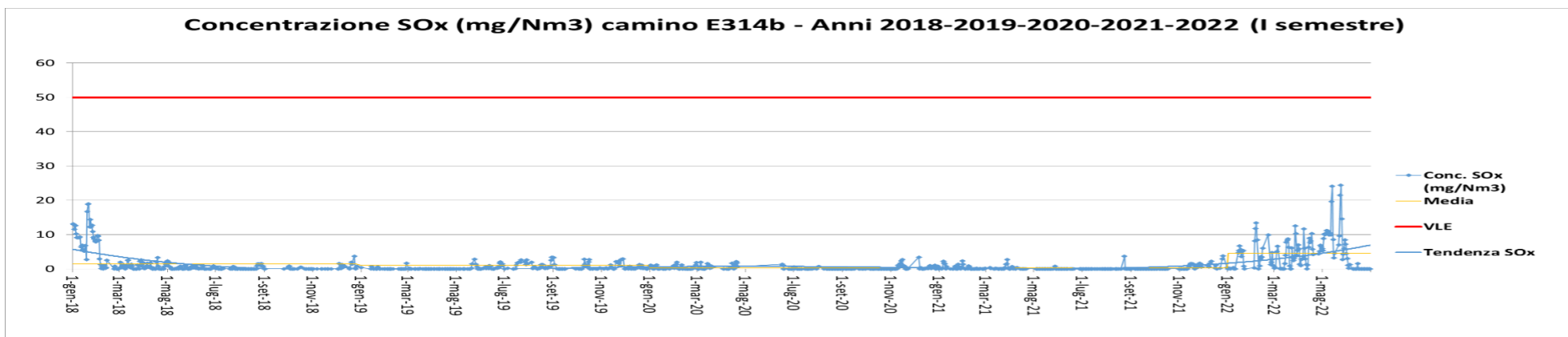
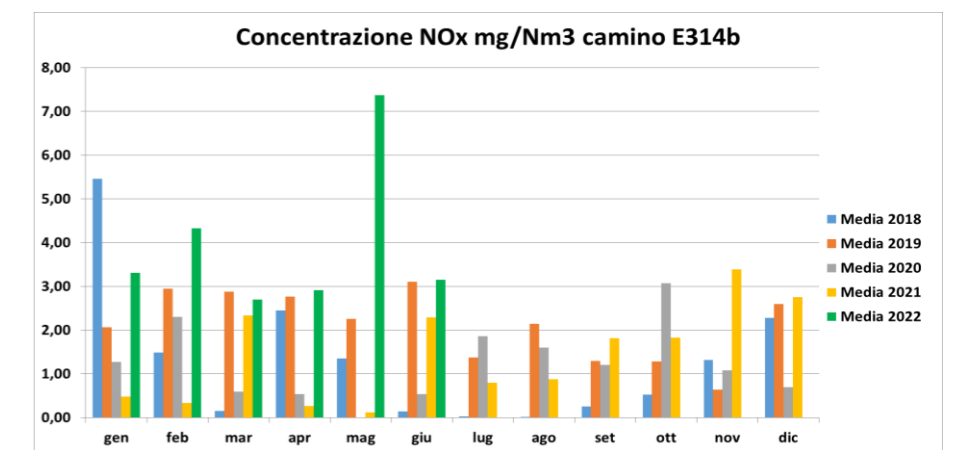
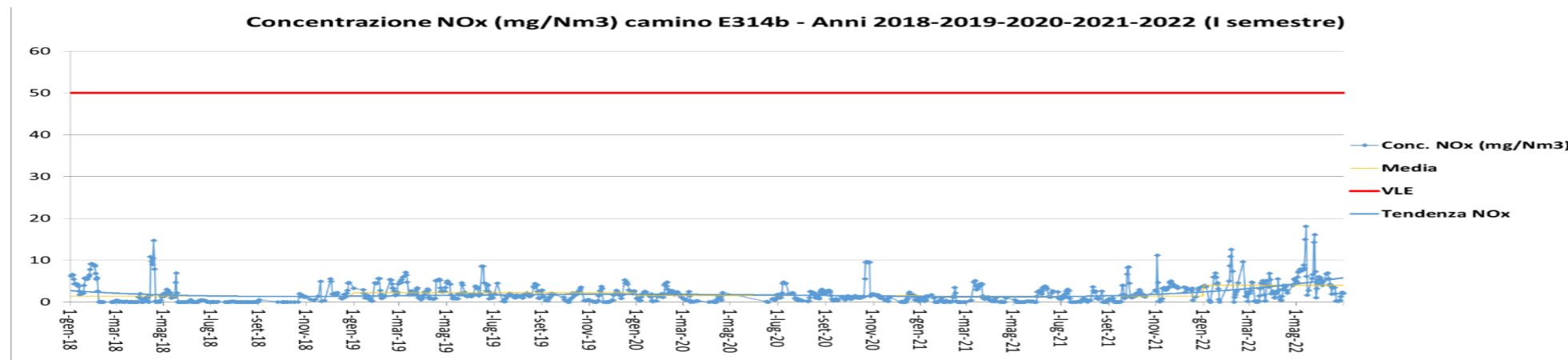
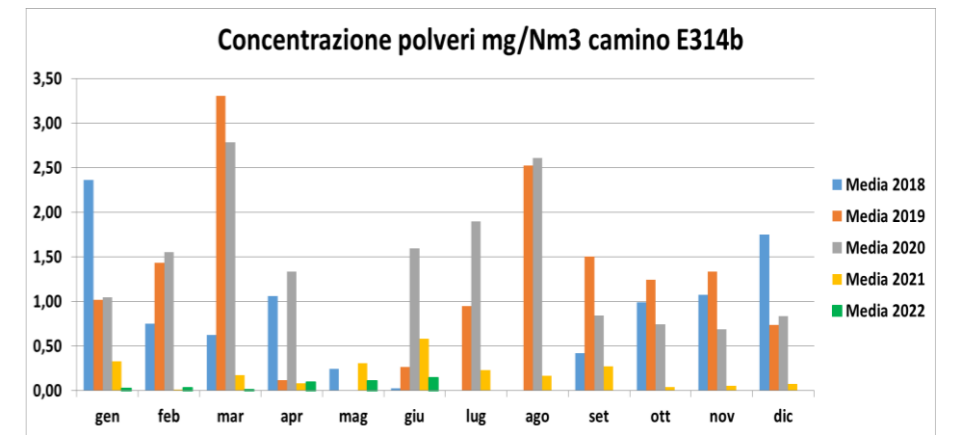
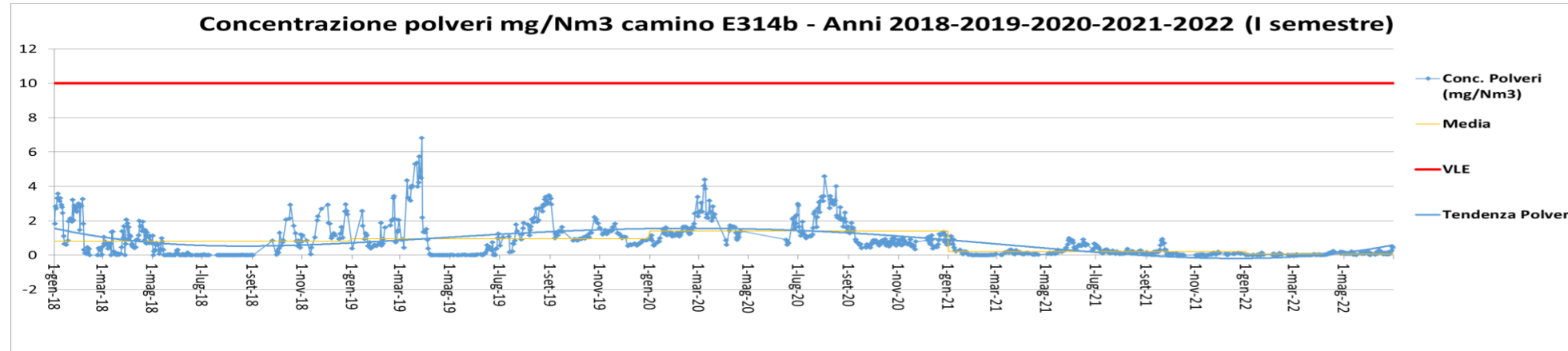
**E312 E314b E315b E324 e E325**



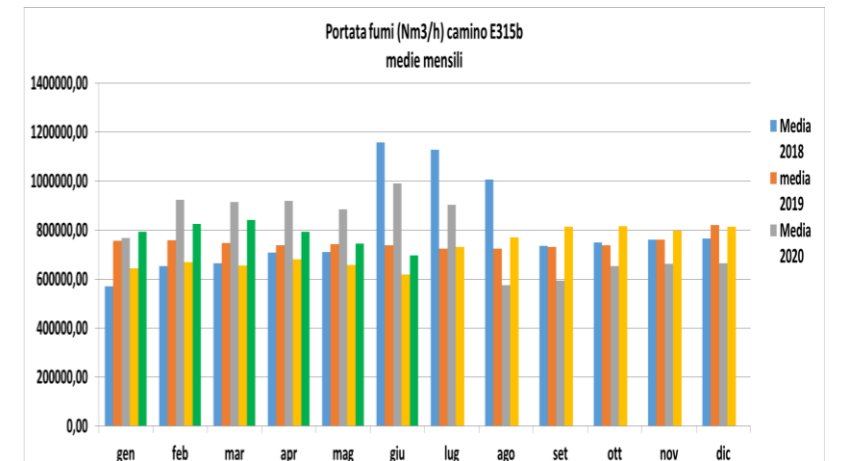
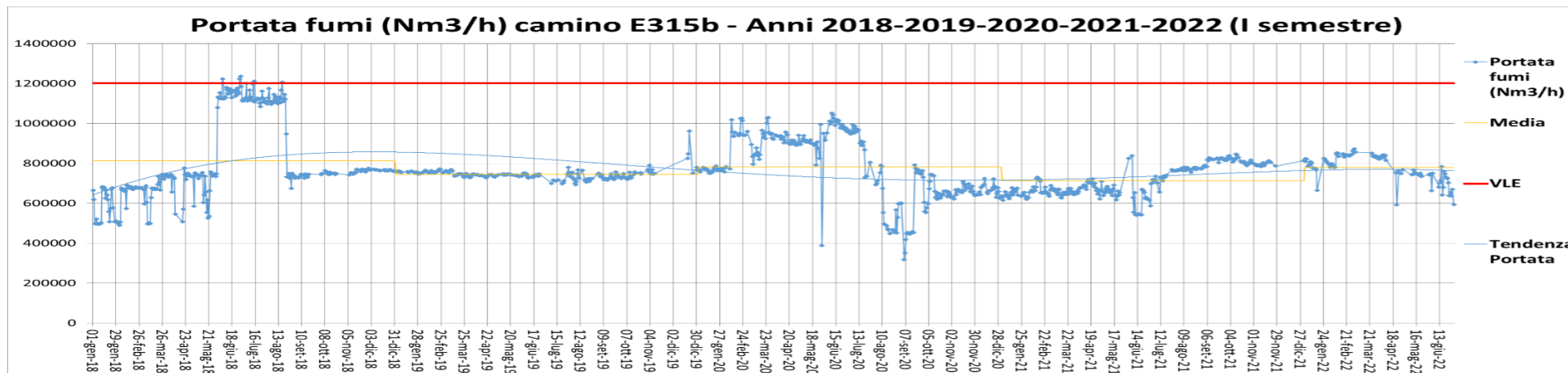
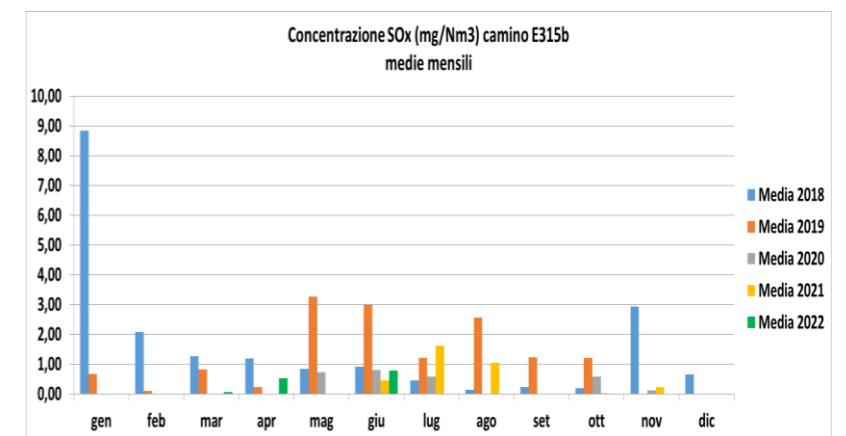
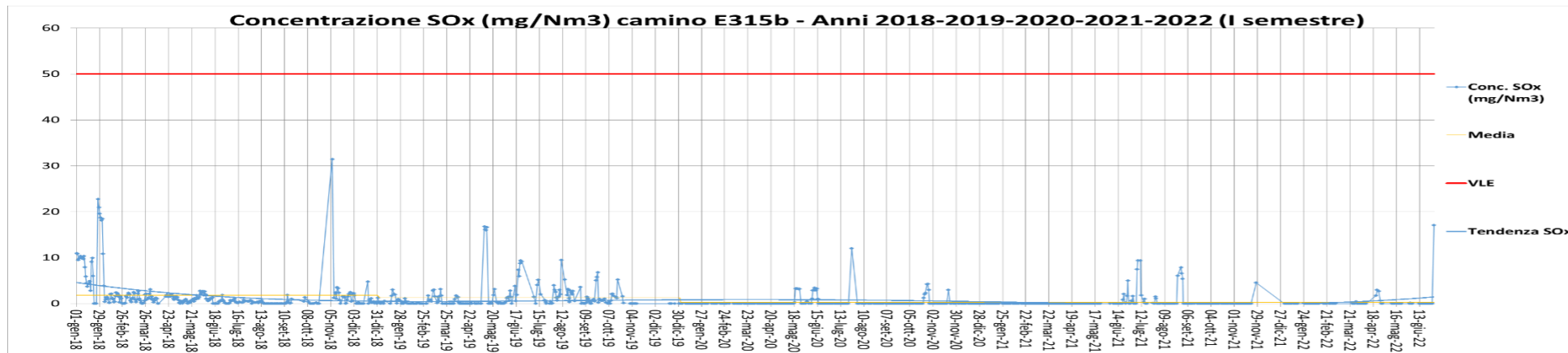
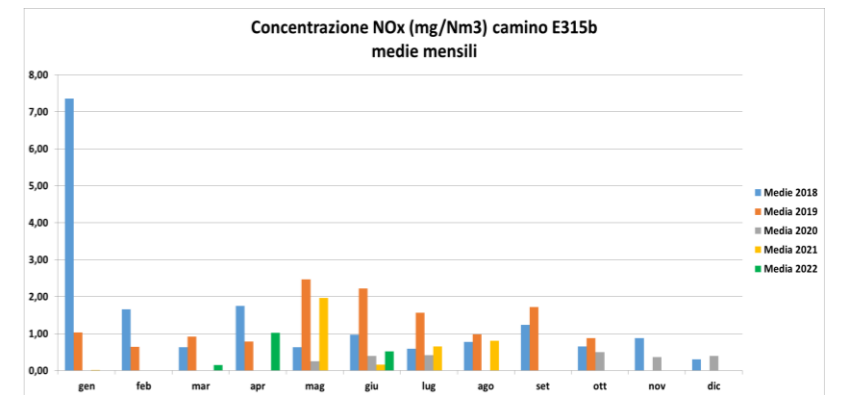
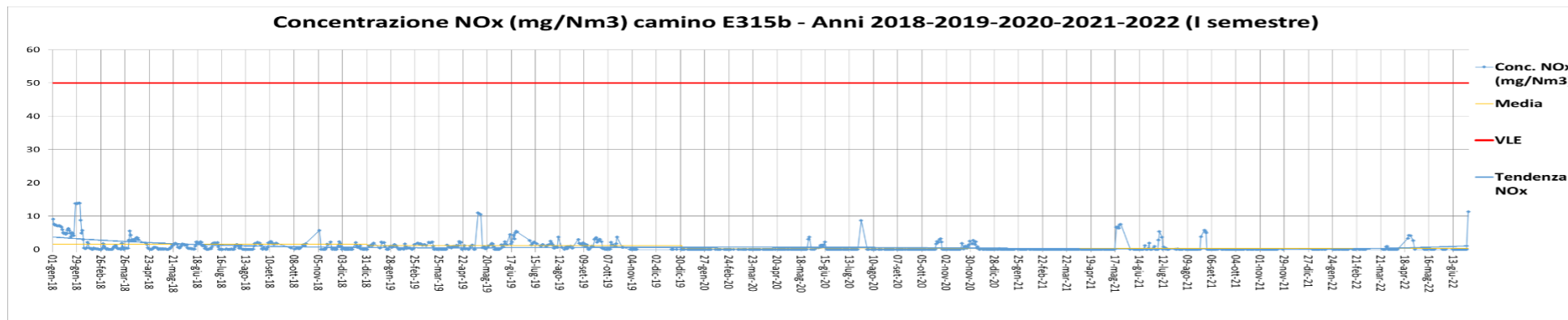
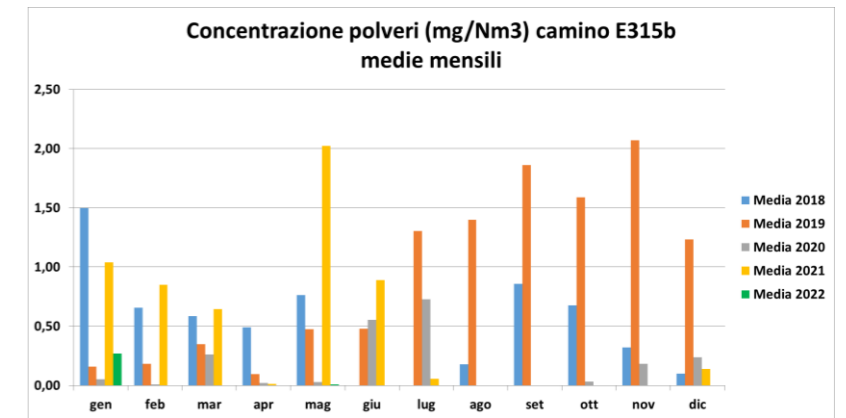
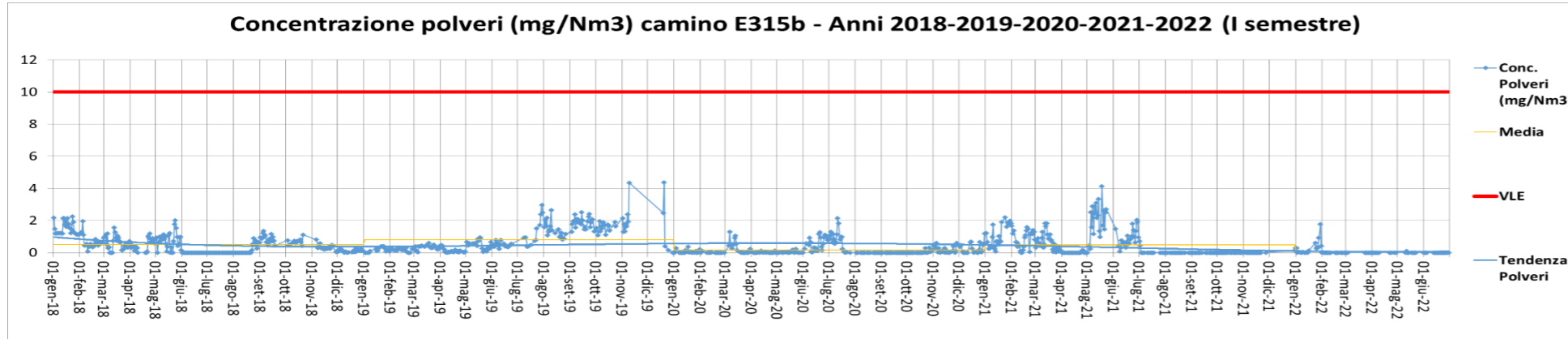
## Camino E312



### Camino E314b

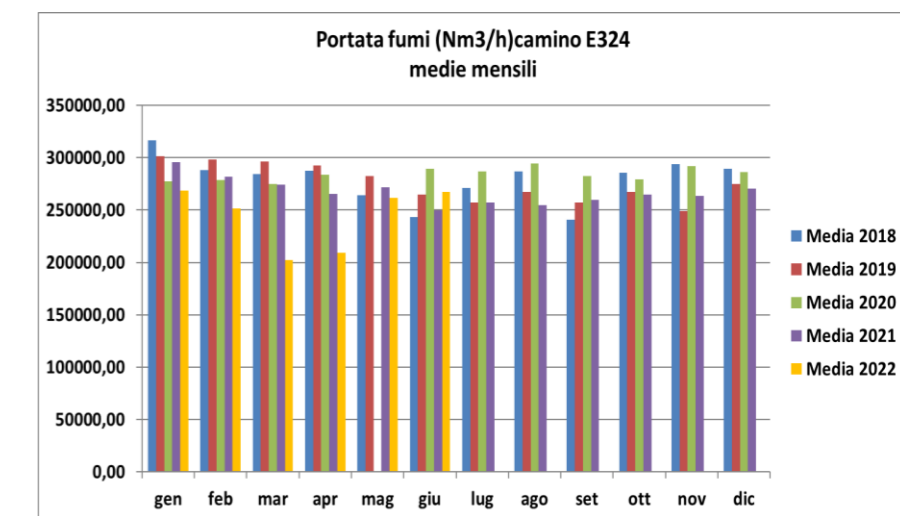
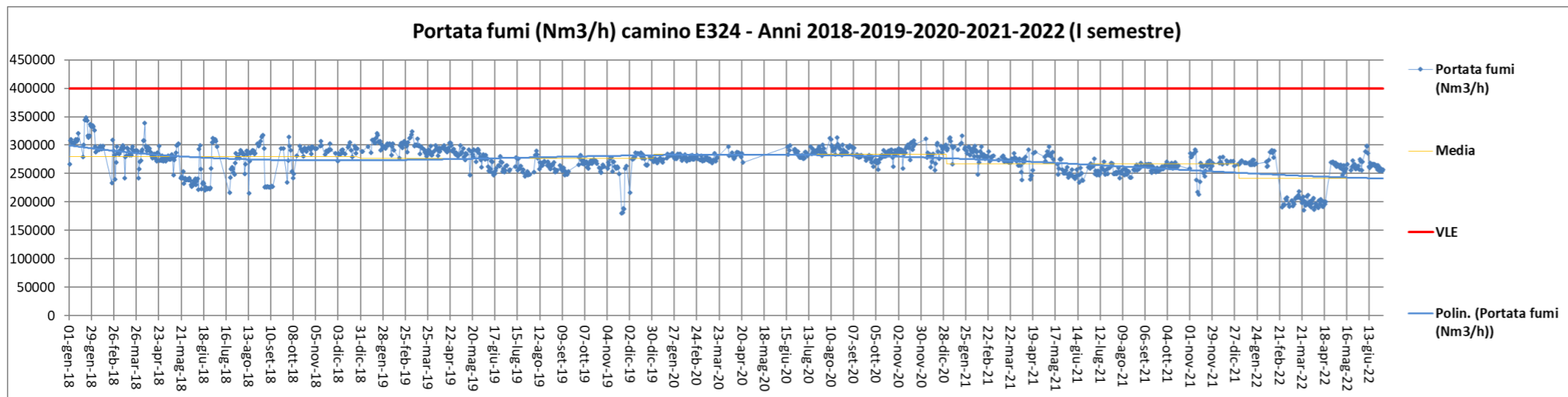
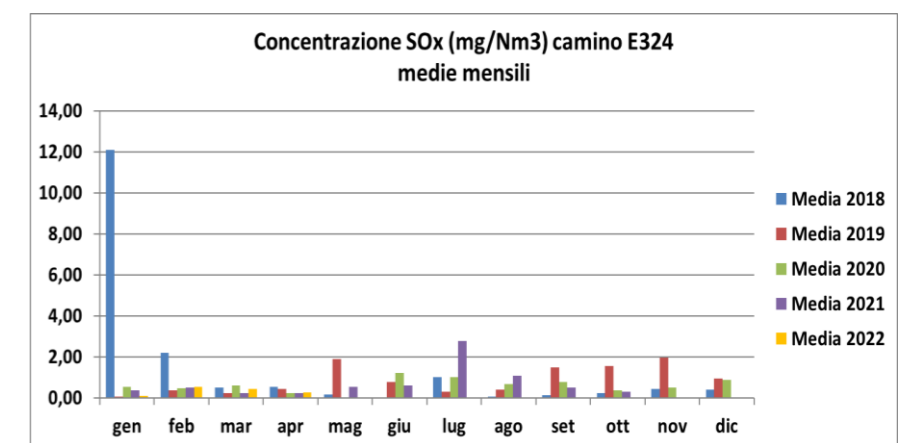
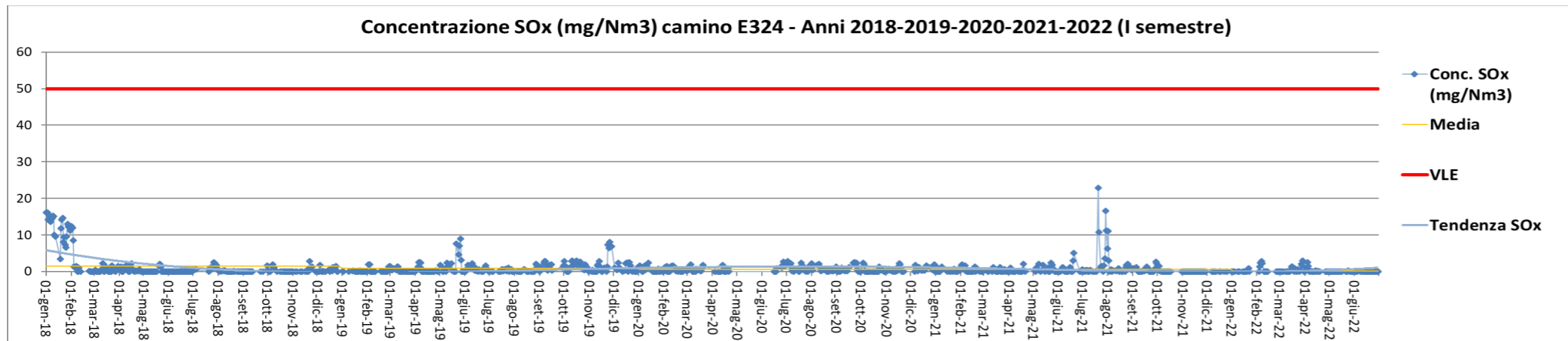
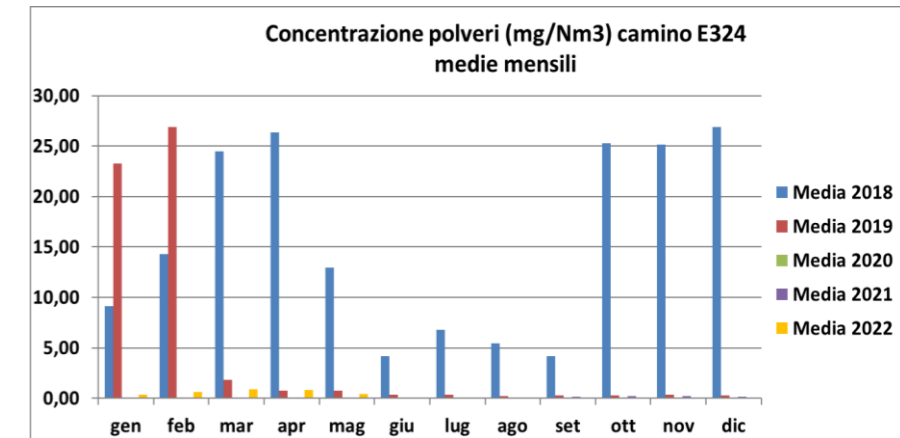
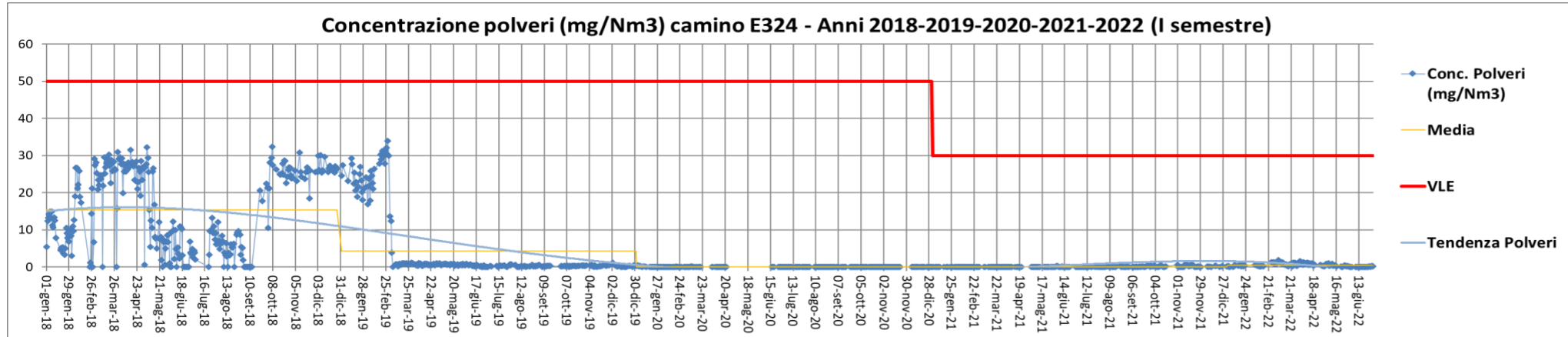


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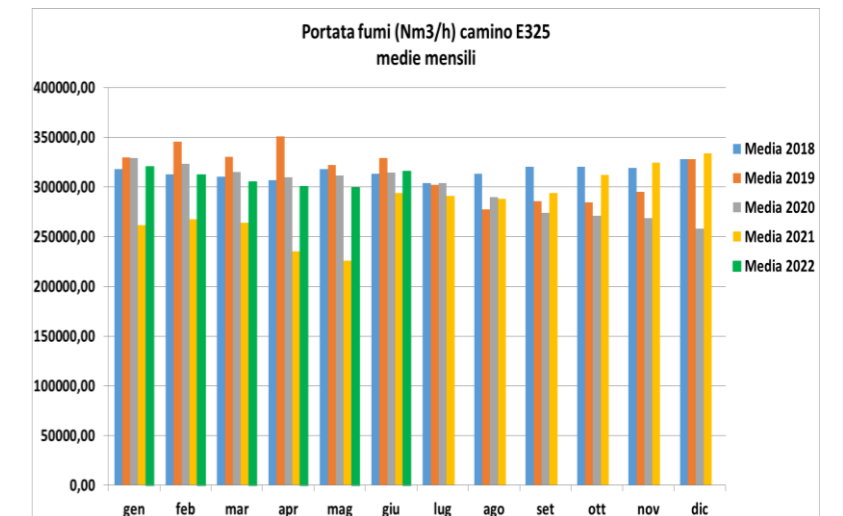
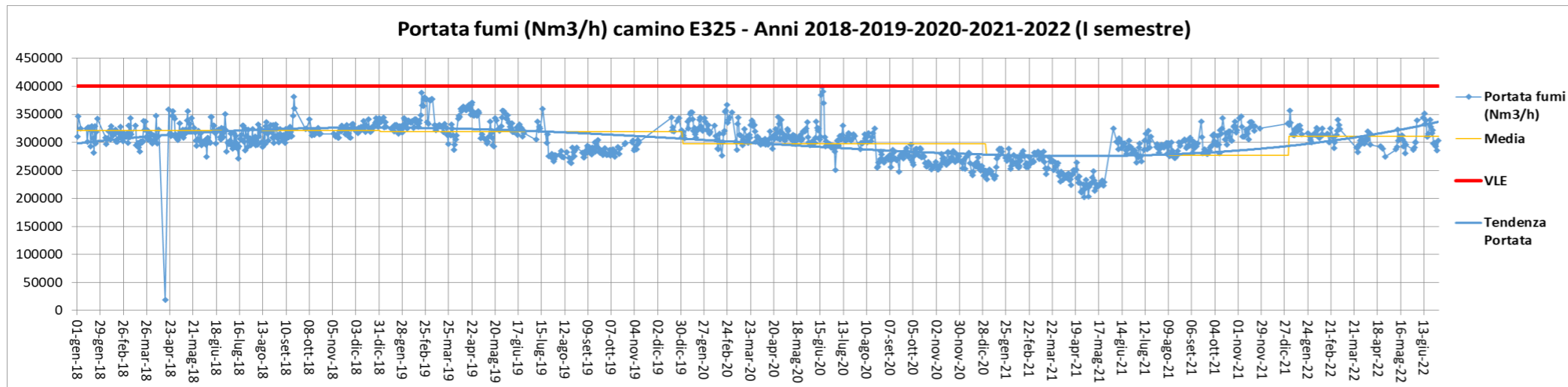
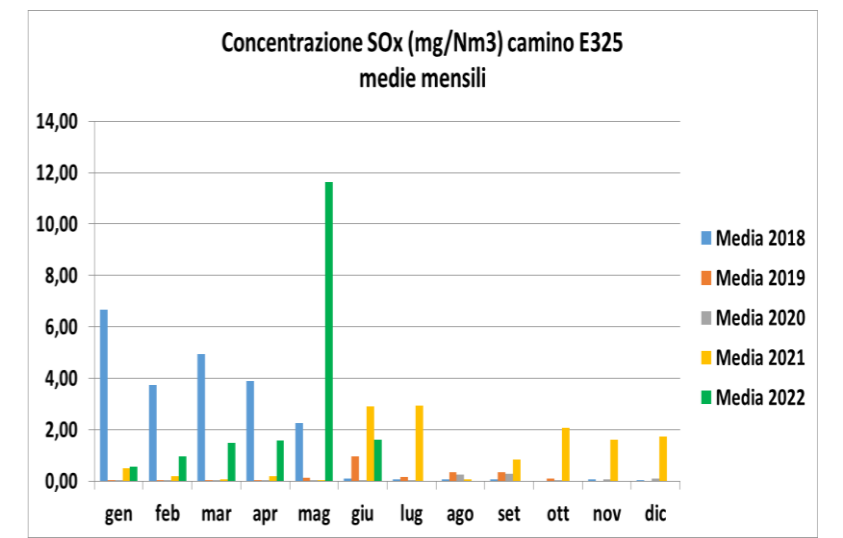
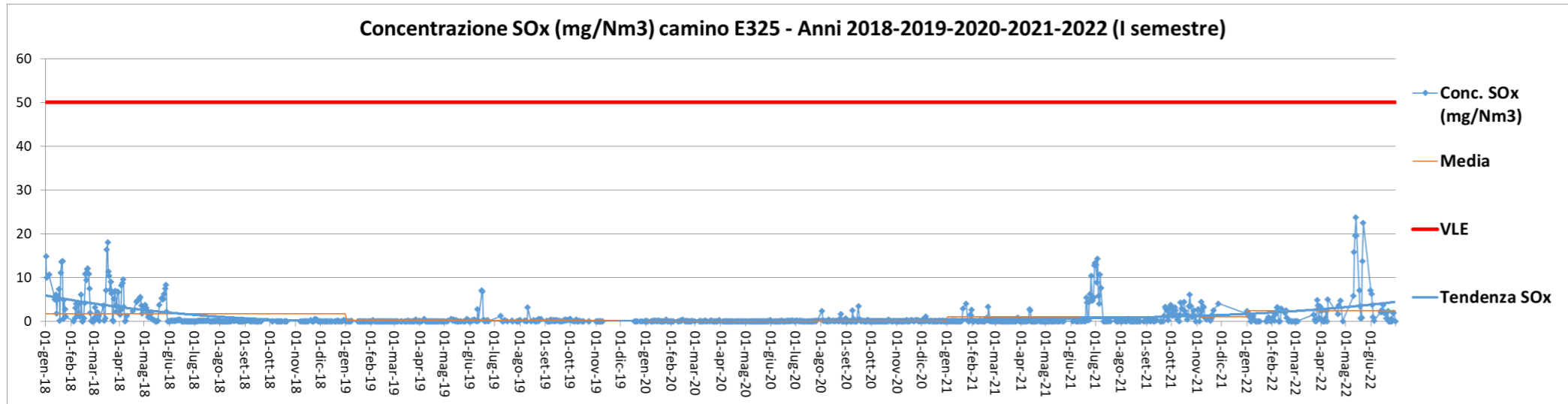
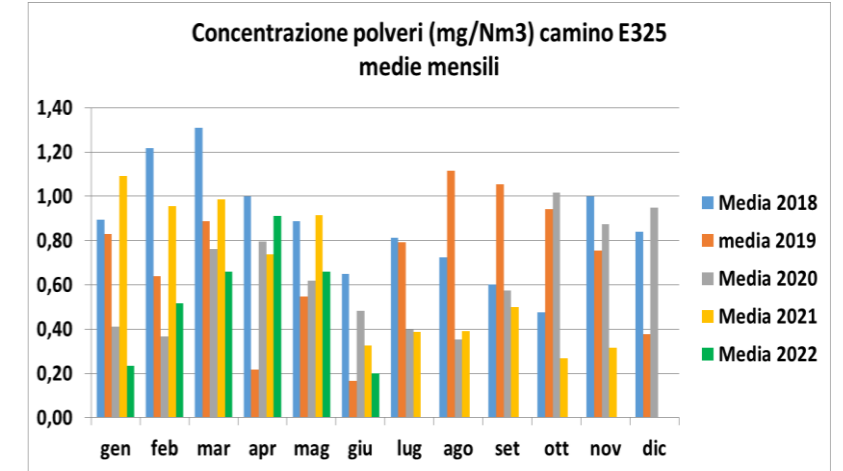
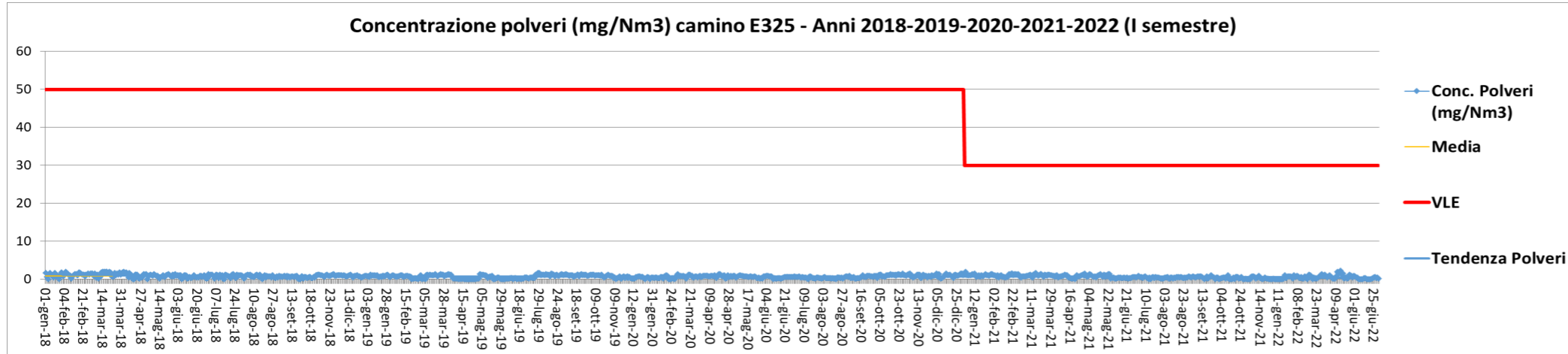




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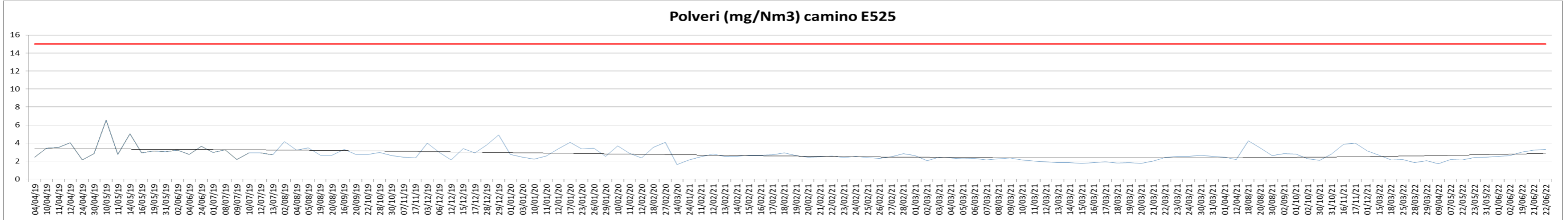
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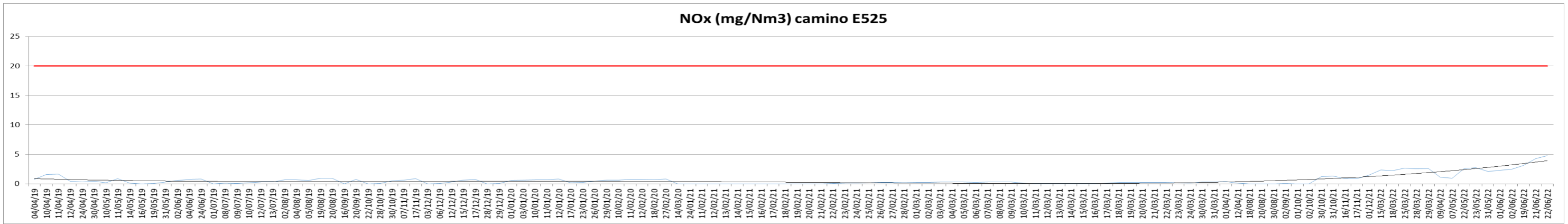
**TAVOLA 3 - Camini Acciaieria**  
**E525, E525B, E551B, E551C**

### Camino E525

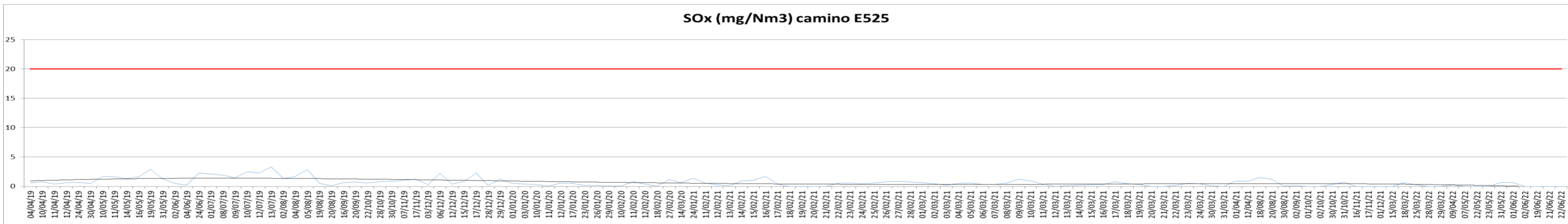
#### Polveri (mg/Nm3) camino E525



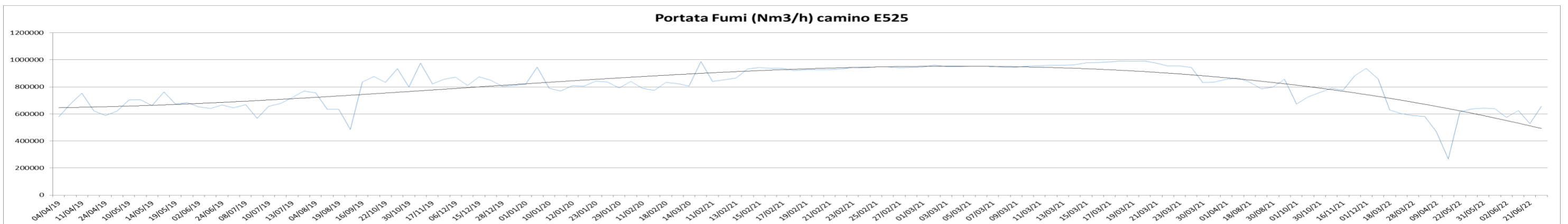
#### NOx (mg/Nm3) camino E525



#### SOx (mg/Nm3) camino E525

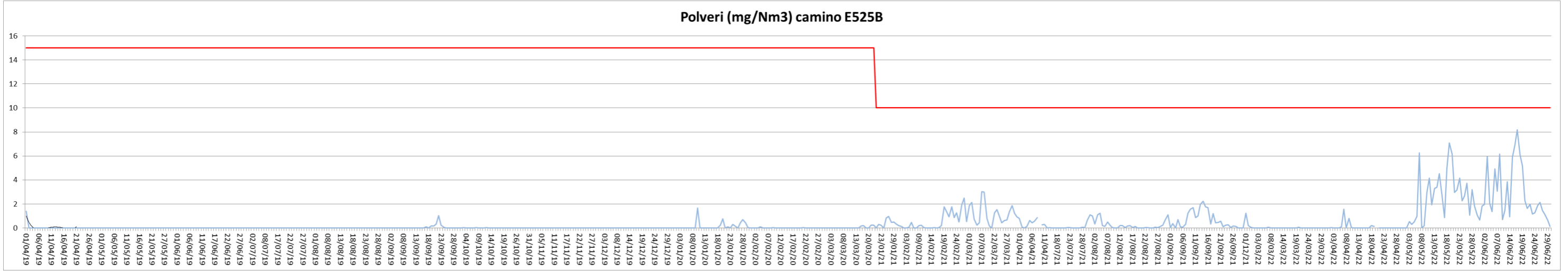


#### Portata Fumi (Nm3/h) camino E525

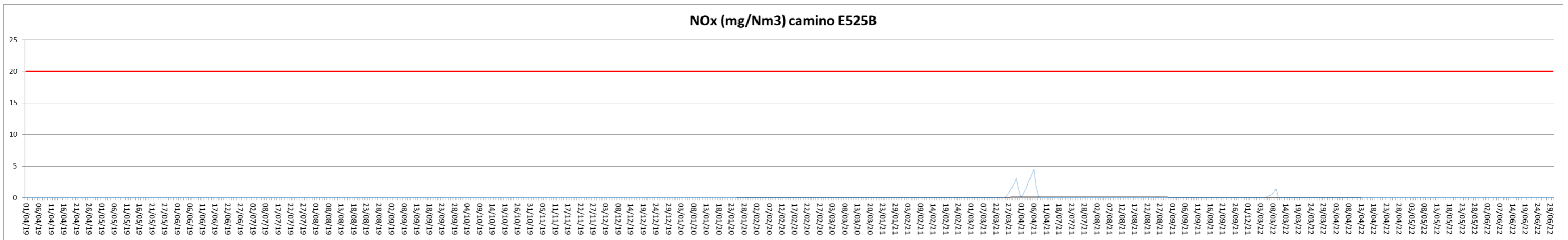


### Camino E525B

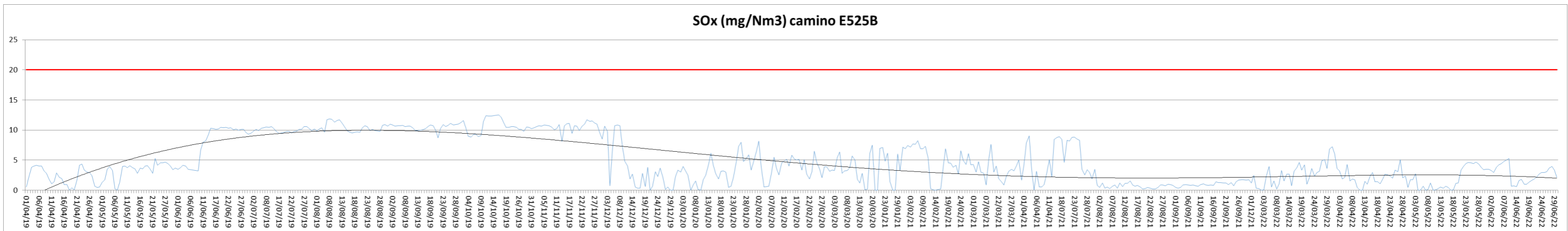
#### Polveri (mg/Nm3) camino E525B



#### NOx (mg/Nm3) camino E525B



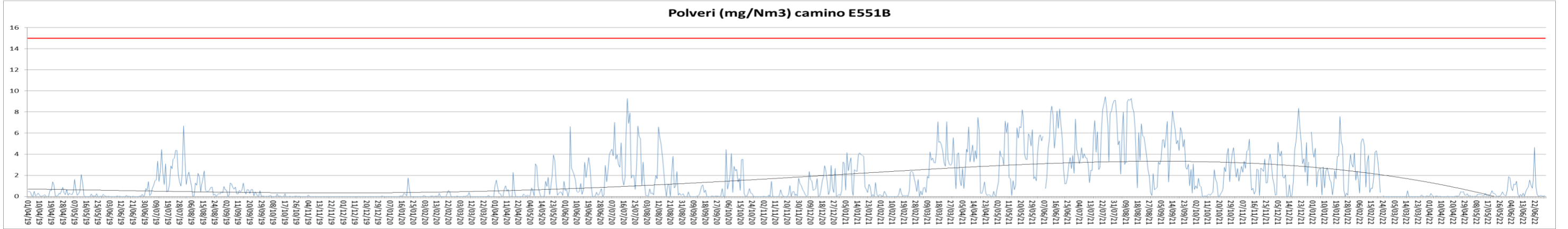
#### SOx (mg/Nm3) camino E525B



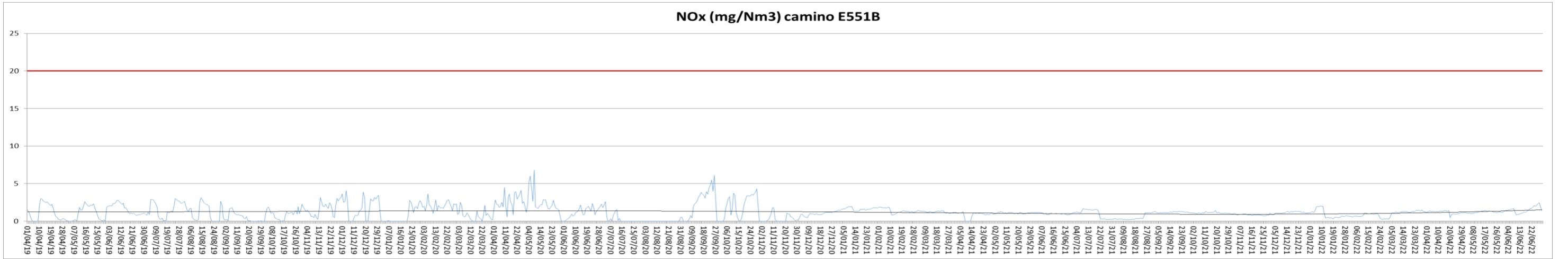


# Camino E551B

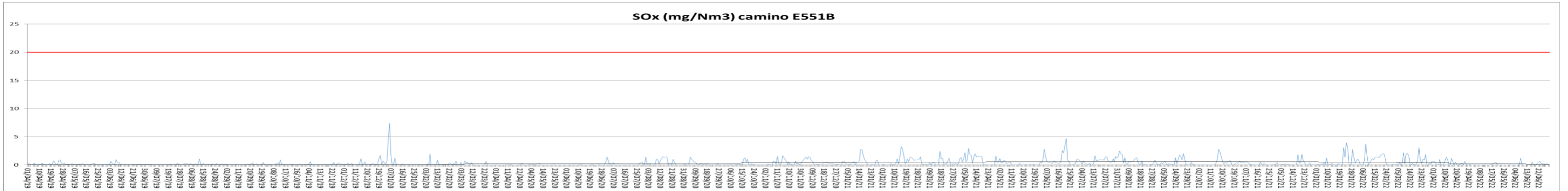
## Polveri (mg/Nm3) camino E551B



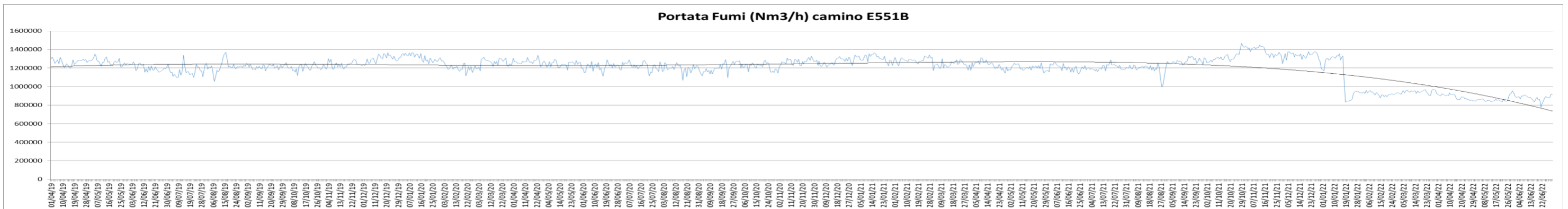
## NOx (mg/Nm3) camino E551B



## SOx (mg/Nm3) camino E551B

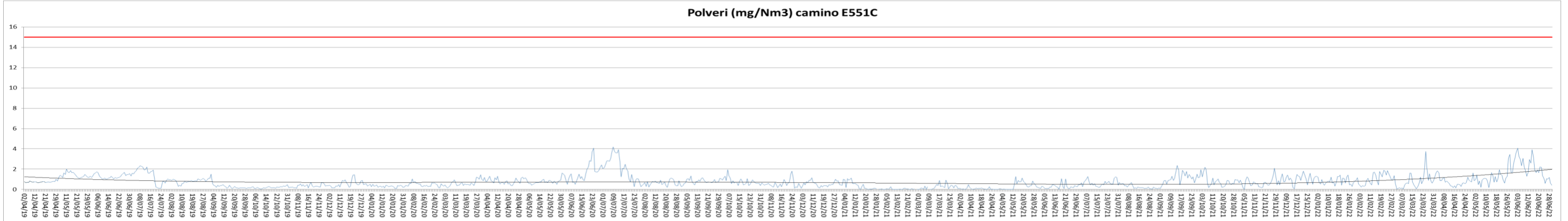


## Portata Fumi (Nm3/h) camino E551B

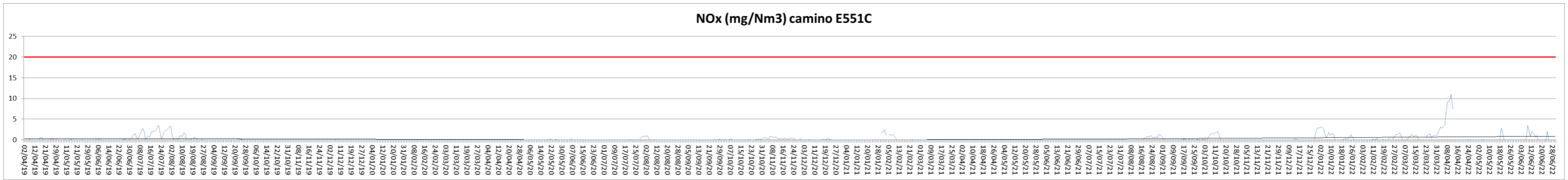


# Camino E551C

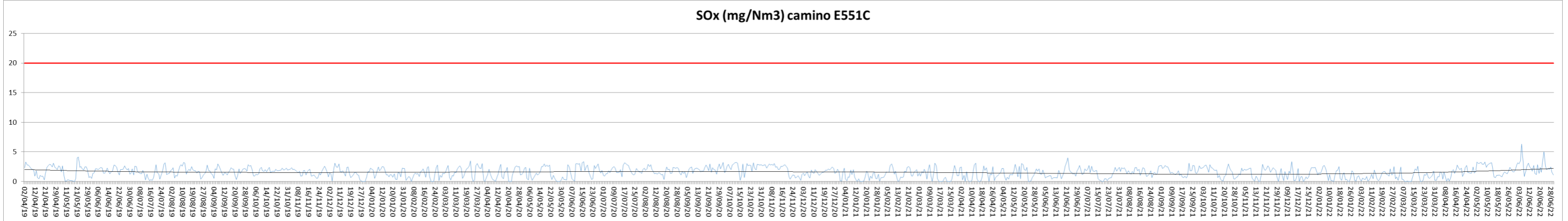
## Polveri (mg/Nm3) camino E551C



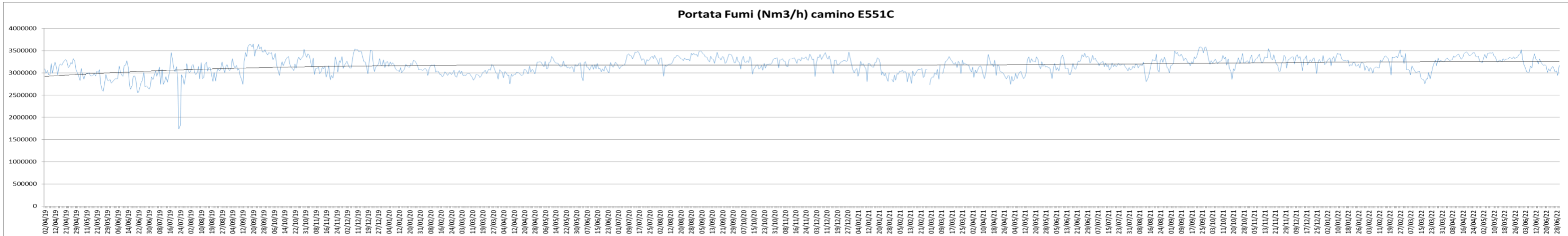
## NOx (mg/Nm3) camino E551C



## SOx (mg/Nm3) camino E551C



## Portata Fumi (Nm3/h) camino E551C



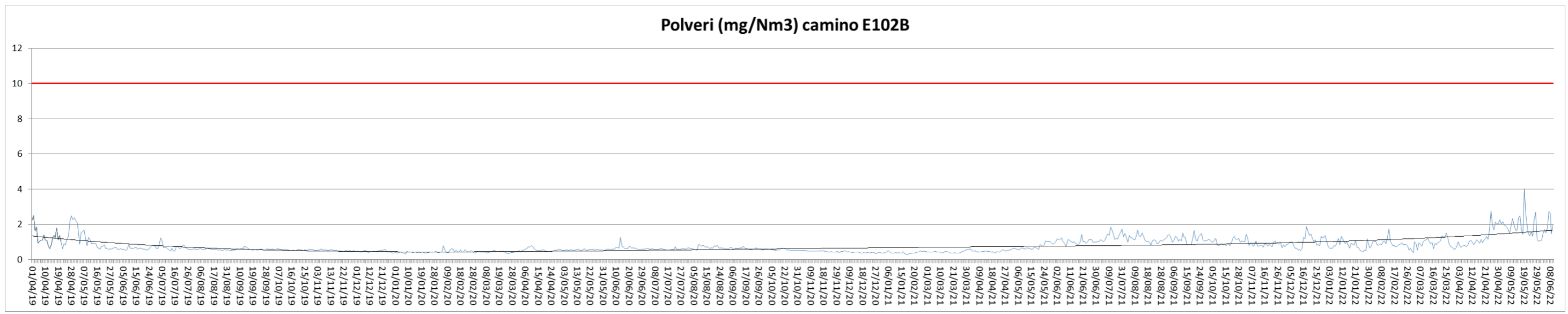
**TAVOLA 4 - Camini Altoforno**

**E102B, E103B, E109, E111, E112, E114, E134, E135, E137**

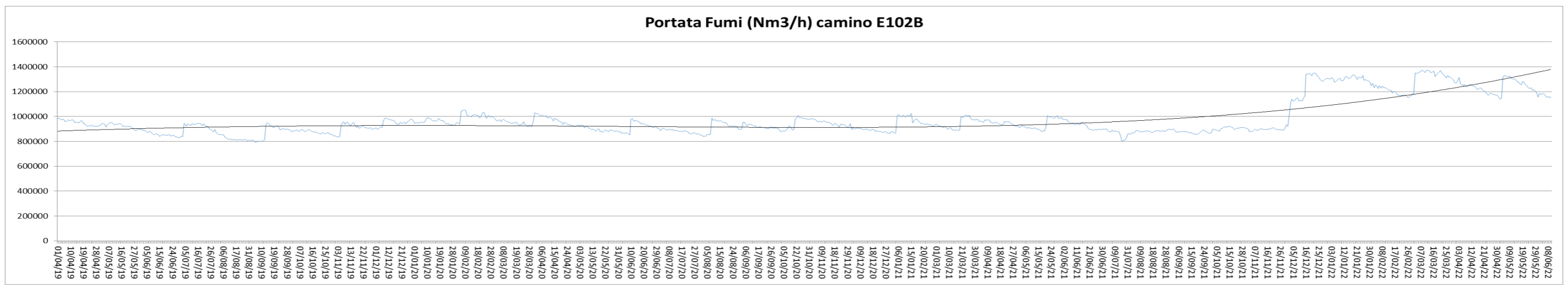


### Camino E102B

#### Polveri (mg/Nm3) camino E102B

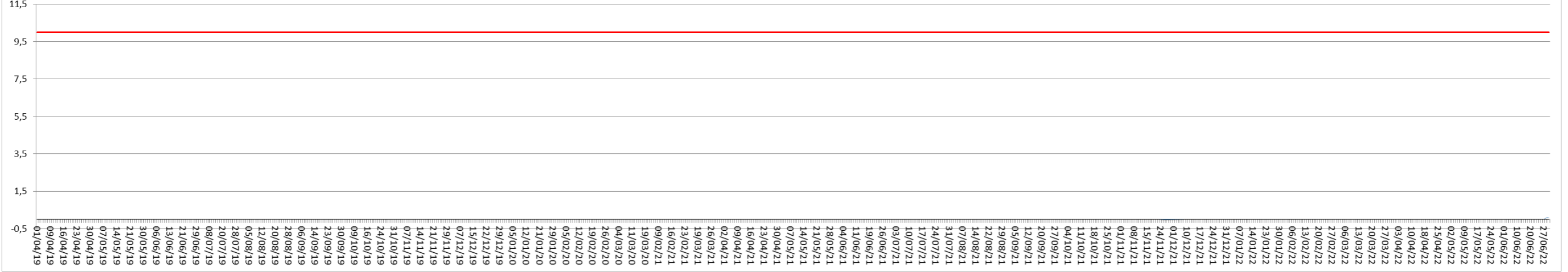


#### Portata Fumi (Nm3/h) camino E102B

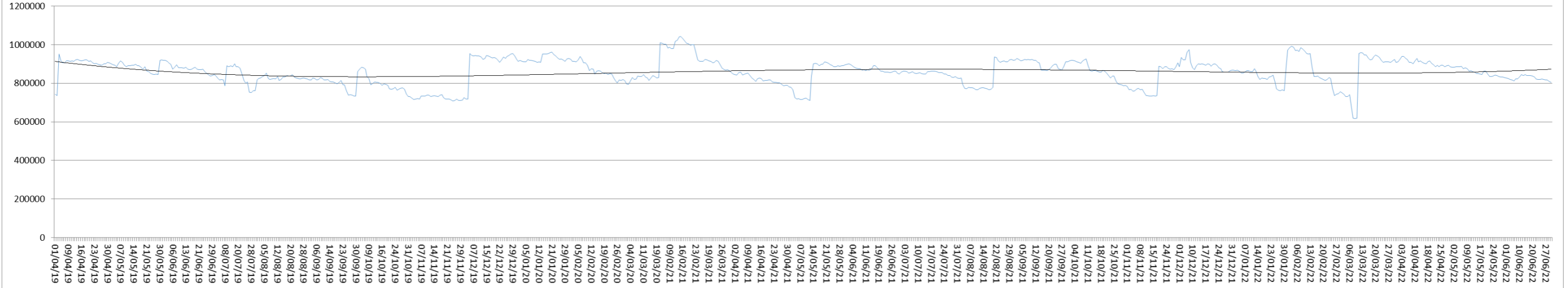


# Camino E103B

## Polveri (mg/Nm3) camino E103B

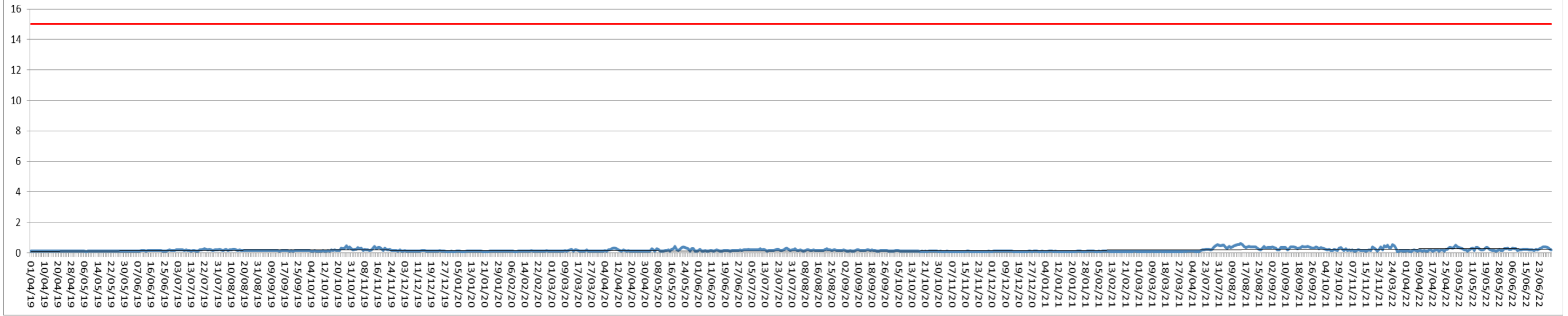


## Portata Fumi (Nm3/h) camino E103B

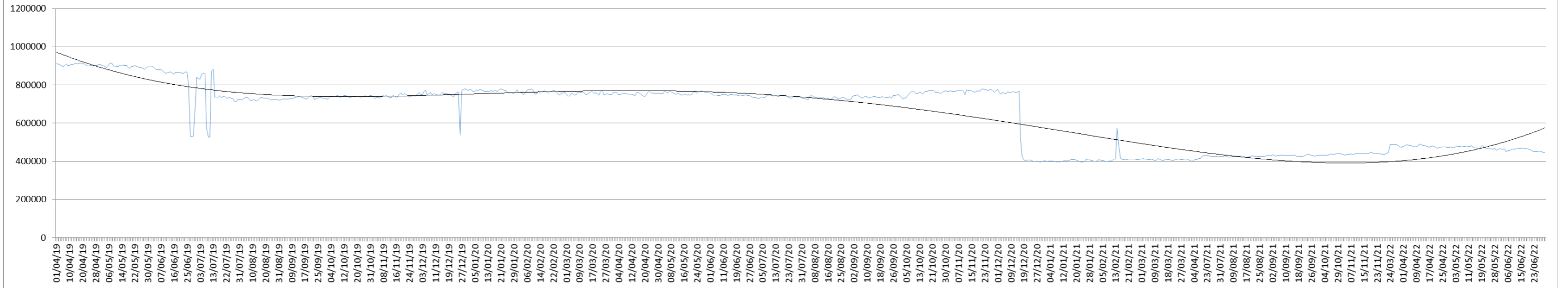


### Camino E109

#### Polveri (mg/Nm3) camino E109

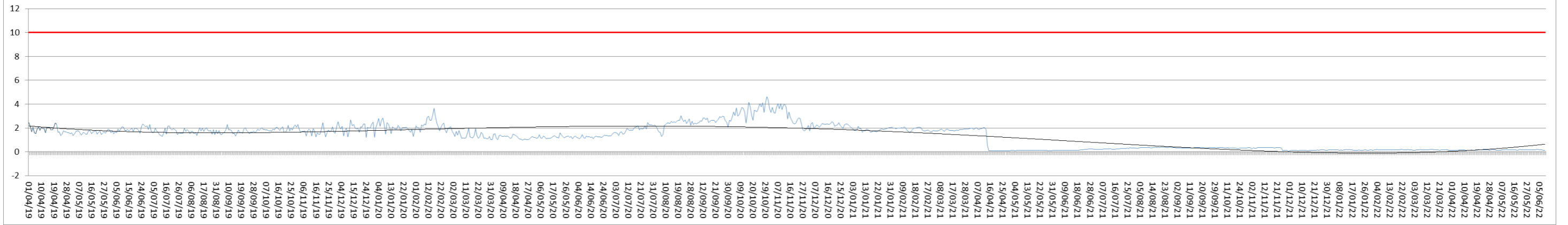


#### Portata Fumi (Nm3/h) camino E109

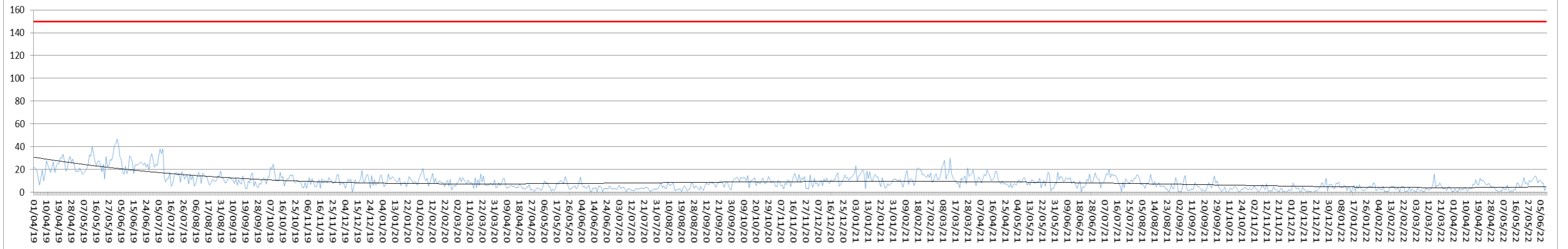


### Camino E111

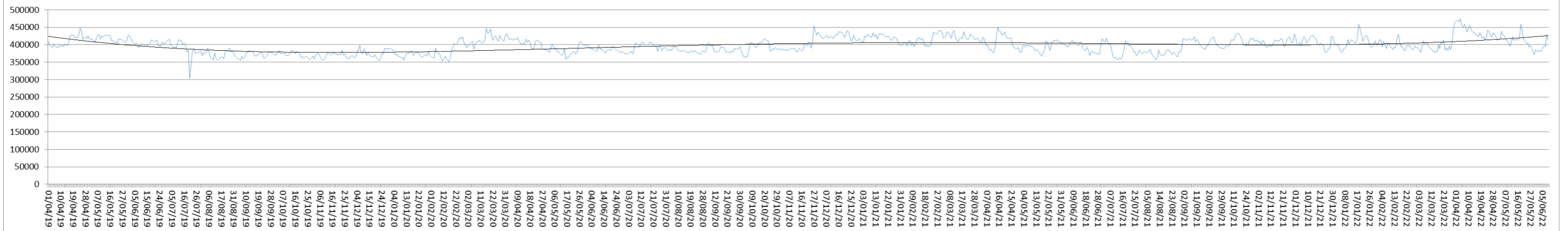
#### Polveri (mg/Nm3) camino E111



#### SOx (mg/Nm3) camino E111

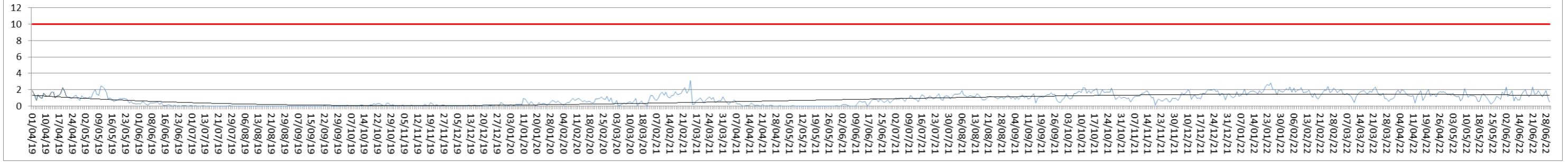


#### Portata Fumi (Nm3/h) camino E111

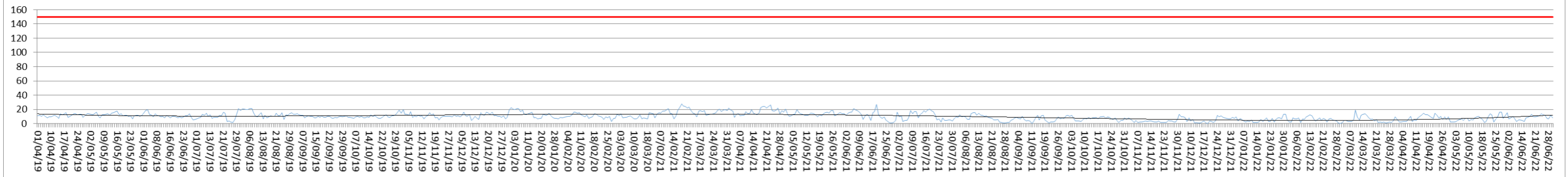


### Camino E112

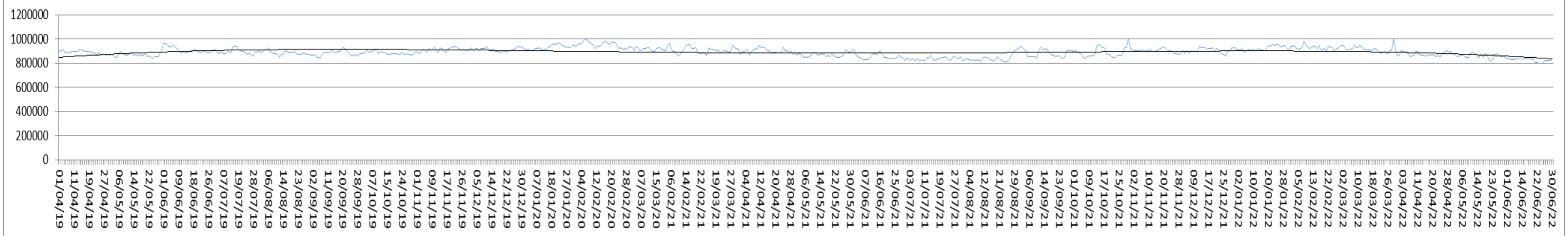
#### Polveri (mg/Nm3) camino E112



#### SOx (mg/Nm3) camino E112



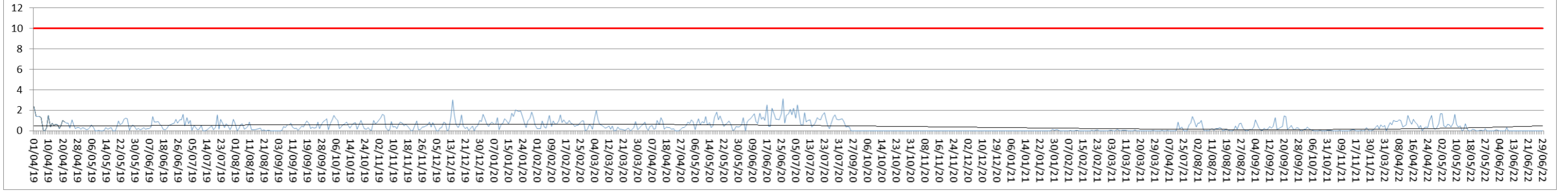
#### Portata Fumi (Nm3/h) camino E112



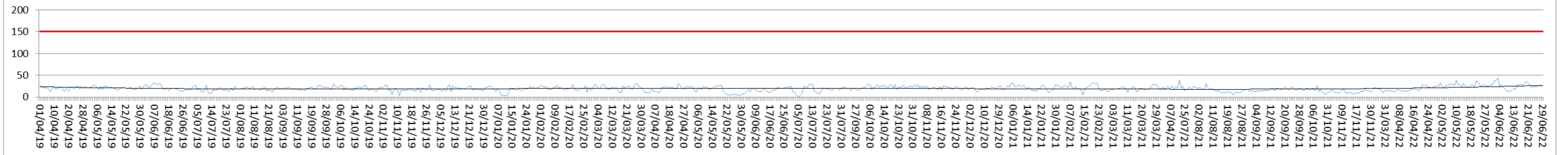


### Camino E114

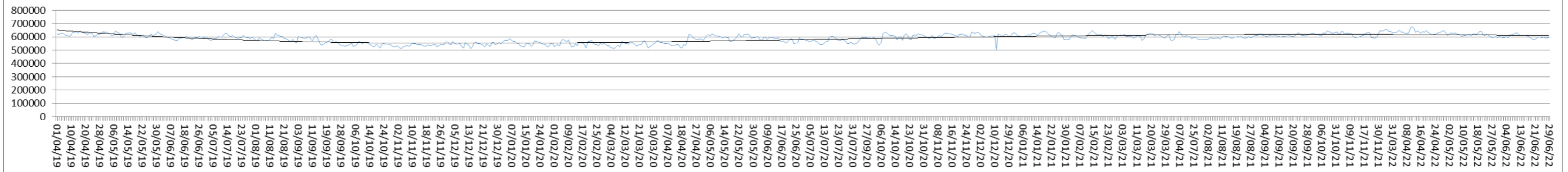
#### Polveri (mg/Nm3) camino E114



#### SOx (mg/Nm3) camino E114

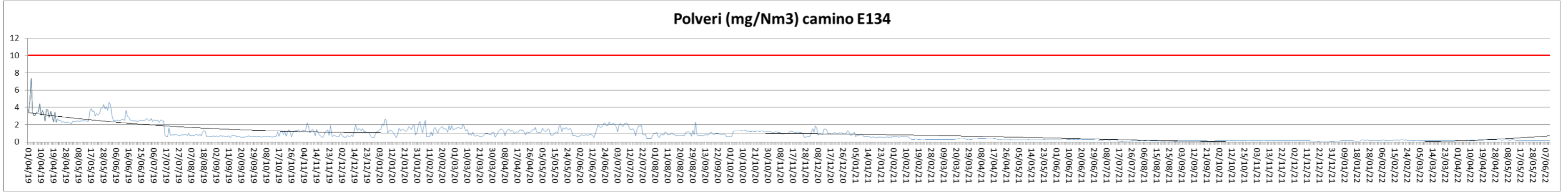


#### Portata Fumi (Nm3/h) camino E114

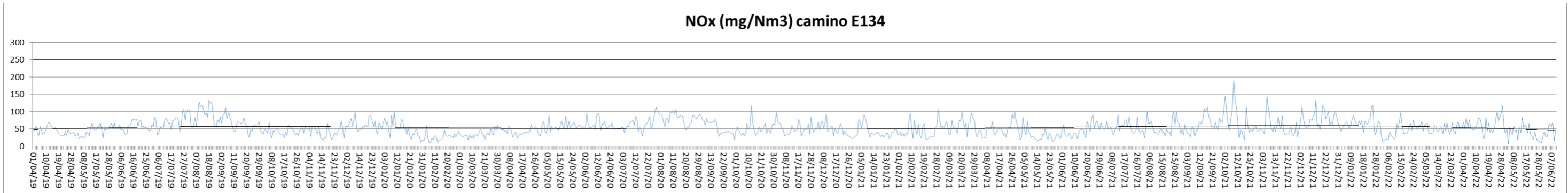


### Camino E134

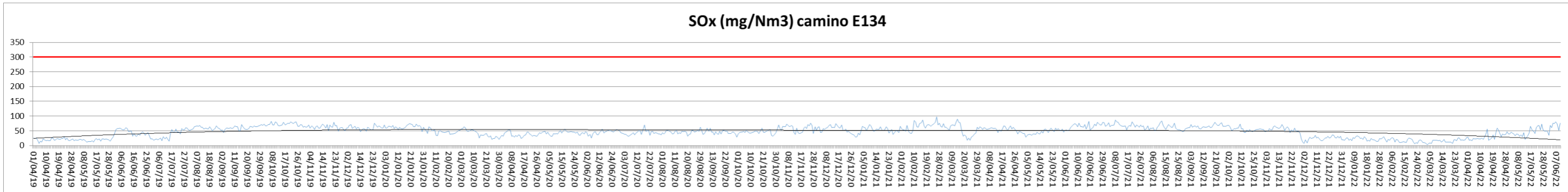
#### Polveri (mg/Nm3) camino E134



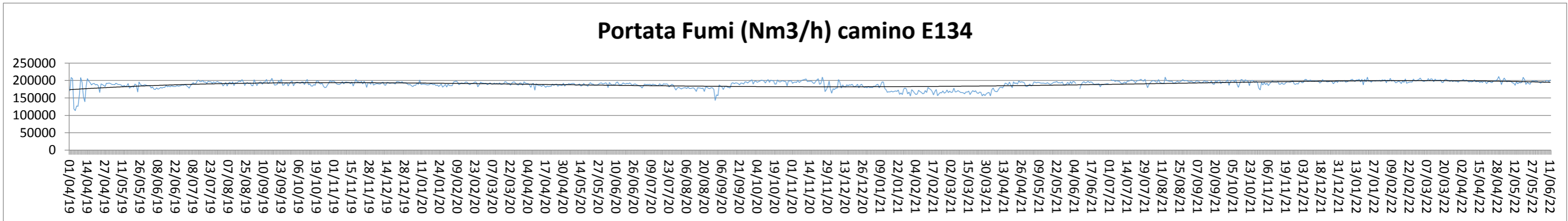
#### NOx (mg/Nm3) camino E134



#### SOx (mg/Nm3) camino E134

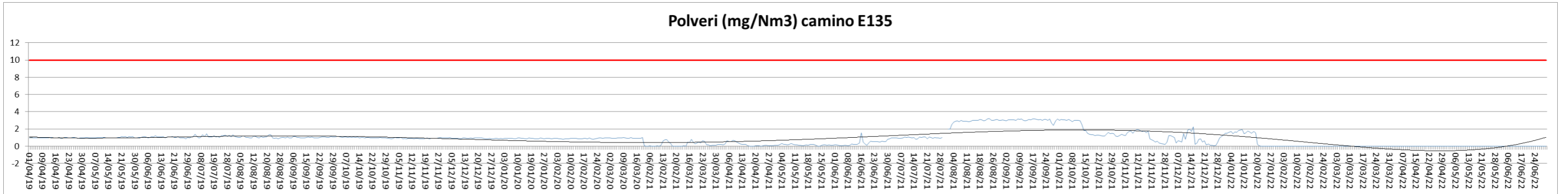


#### Portata Fumi (Nm3/h) camino E134

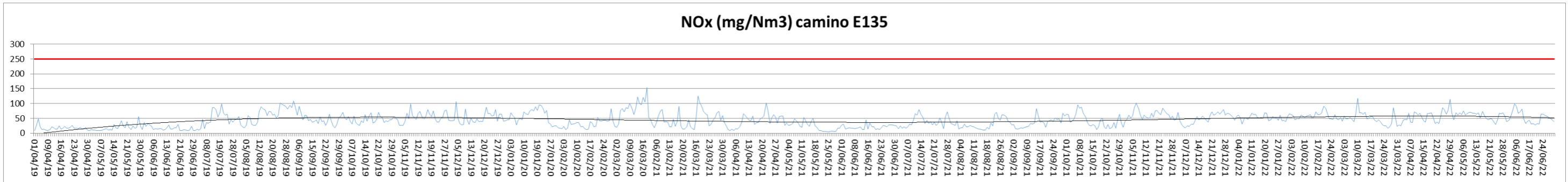


### Camino E135

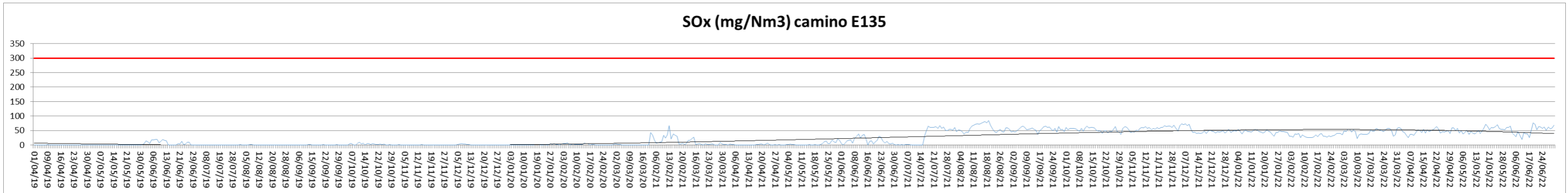
#### Polveri (mg/Nm3) camino E135



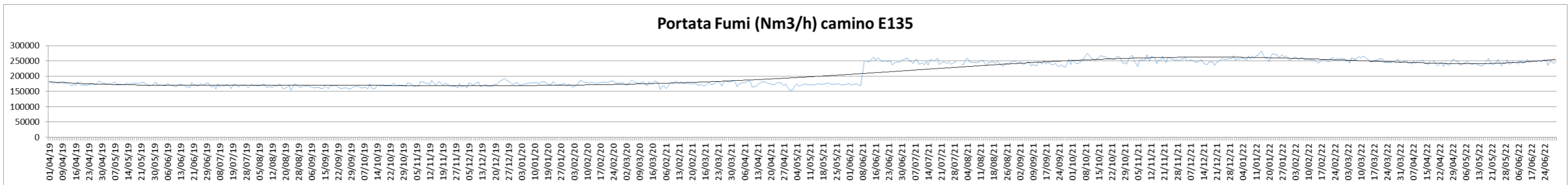
#### NOx (mg/Nm3) camino E135



#### SOx (mg/Nm3) camino E135



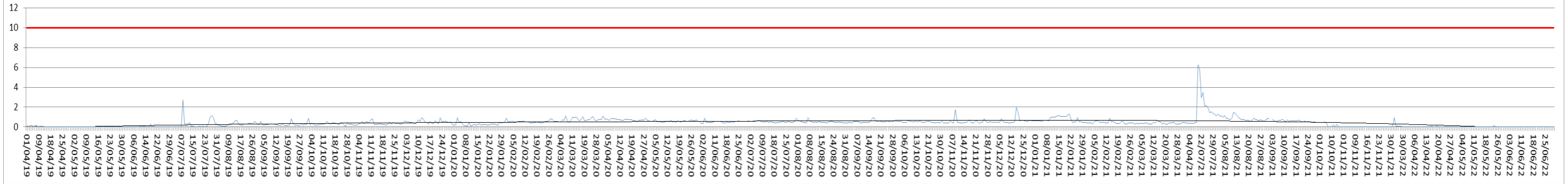
#### Portata Fumi (Nm3/h) camino E135



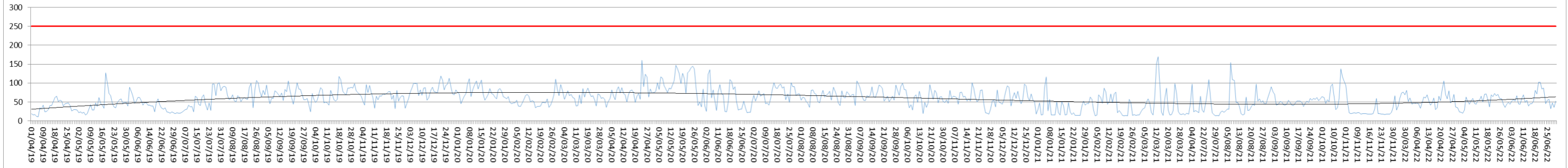


# Camino E137

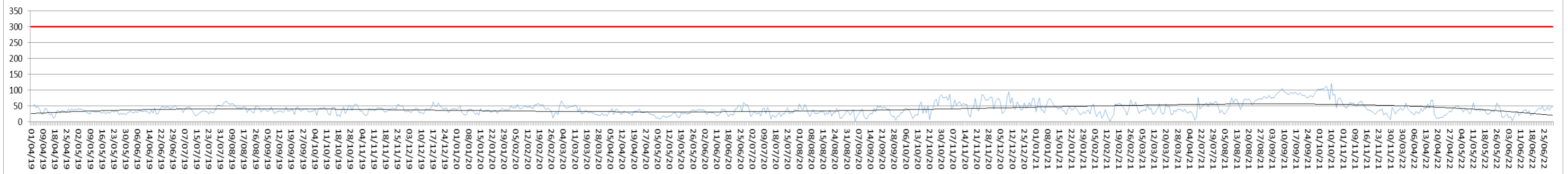
## Polveri (mg/Nm3) camino E137



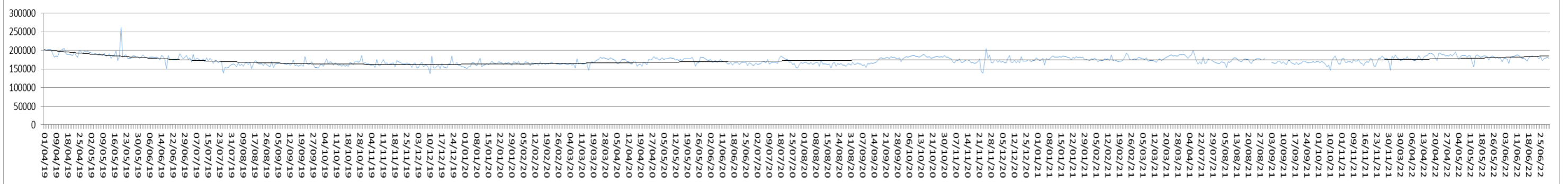
## NOx (mg/Nm3) camino E137



## SOx (mg/Nm3) camino E137



## Portata Fumi (Nm3/h) camino E137



**TAVOLA 5- Produzione acciaio e emissioni diffuse totali nello stabilimento (Tabella e grafico degli andamenti)**

Dati riepilogativi sulle stime delle emissioni diffuse in aria estratte dai rapporti annuali di esercizio 2017-2018-2019 trasmessi dal Gestore per i vari reparti dell'area a caldo																																				
Impianto/prodotto	Produzione (Ktonnellate/a)					Polveri (t/anno)					IPA (BaP) (Kg/anno)					Benzene (t/anno)					Stima emissione diffusa di PCDD/F g/anno					H <sub>2</sub> S (t/anno)					SO <sub>2</sub> (t/anno)					
	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	
Cokeria (Batterie 7-8 e 9-12)/Coke m.	1234	1232	1181	992	1001,9	25,52	25,24	24,52	20,81	16,84	17,06	17,03	16,32	13,72	13,85	1,26	1,25	1,20	1,012	1,022																
Cokeria (Torri di spegnimento 4 e 7)/Coke m.						22,54	26,90	33,10	24,42	12,84																										
Agglomerato Agl.	5525	4901	4878	4132	4589	Depolverazione secondaria (parte non captata)	18,74	18,88	20,06	21,42	21,99											0,0044	0,0783	0,011	0,0171	0,0303										
						Raffreddatori	35,09	31,71	30,49	27,10	29,46											0,0060	0,0523	0,0081	0,0436	0,0516										
Altoforni 1, 2 e 4/Ghisa	4673	4430	4173	3313	3926	Colaggio	88,8	84,2	79,3	62,9	74																4,0 ND(SCVL)	3,9 35,4(SCVL)	3,4 33,8(SCVL)	2,9 29,1 (SCVL)	3,1 56,4 (SCVL)	2,0 ND (SCVL)	1,9 17,4(SCVL)	1,7 26,5(SCVL)	1,4 14,3 (SCVL)	1,5 26,8 (SCVL)
						Stock House	27,8	9,0	0	0	0																									
Acciaierie 1 e 2/Acciaio	4731	4520	4210	3371	4062	37,9	36,2	33,7	27	32,5																										
<b>TOTALE AREA A CALDO</b>						<b>256,39</b>	<b>232,13</b>	<b>221,71</b>	<b>183,65</b>	<b>187,63</b>	<b>17,06</b>	<b>17,03</b>	<b>16,32</b>	<b>13,72</b>	<b>13,85</b>	<b>1,26</b>	<b>1,25</b>	<b>1,20</b>	<b>1,012</b>	<b>1,022</b>	<b>0,010*</b>	<b>0,13**</b>	<b>0,019***</b>	<b>0,0607****</b>	<b>0,082</b>	<b>4,0</b>	<b>39,3</b>	<b>57,2</b>	<b>32,0</b>	<b>59,5</b>	<b>2,0</b>	<b>19,3</b>	<b>28,2</b>	<b>15,7</b>	<b>28,3</b>	
<b>TOTALE STABILIMENTO</b>						<b>307,5</b>	<b>290,5</b>	<b>257</b>	<b>225,4</b>	<b>206,4</b>	<b>17,06</b>	<b>17,03</b>	<b>16,32</b>	<b>13,72</b>	<b>13,85</b>	<b>1,26</b>	<b>1,25</b>	<b>1,20</b>	<b>1,012</b>	<b>1,022</b>	<b>0,010</b>	<b>0,13</b>	<b>0,019</b>	<b>0,0607</b>	<b>0,082</b>	<b>4</b>	<b>39,3</b>	<b>57,2</b>	<b>32,0</b>	<b>59,5</b>	<b>2,0</b>	<b>19,3</b>	<b>28,2</b>	<b>15,7</b>	<b>28,3</b>	

(\*) Fattore di emissione: 0,002

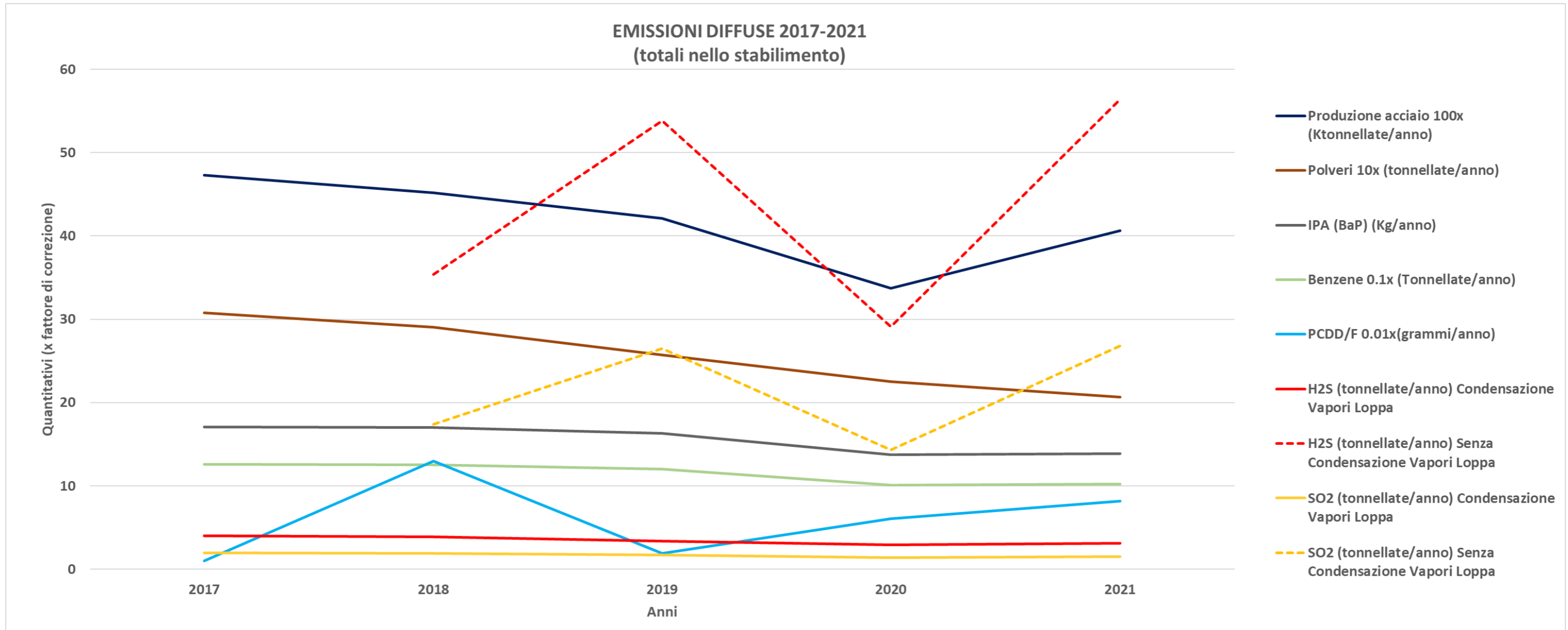
(\*\*) Fattore di emissione: 0,027

(\*\*\*) Fattore di emissione 0,004

(\*\*\*\*) Fattore di emissione 0,015

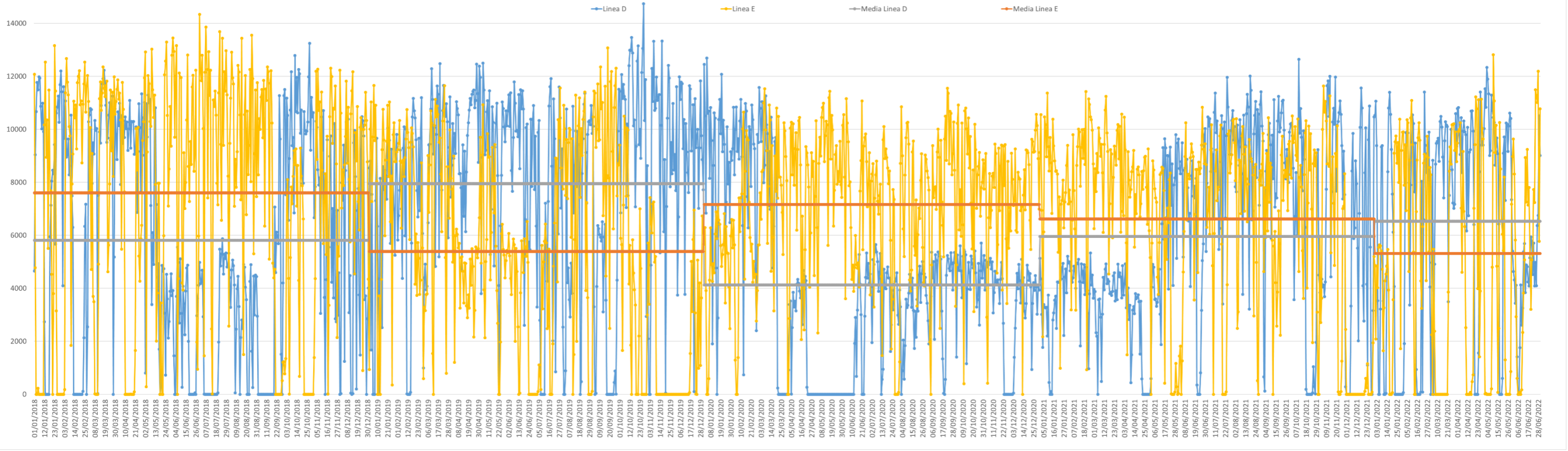
(SCVL) Senza Condensazione Vapori Loppa

Grafico degli andamenti dei valori di emissioni diffuse stimati per l'intero stabilimento estratte dai rapporti annuali di esercizio 2017-2018-2019-2020-2021



**TAVOLA 6:** Produzione Agglomerato e Cokeria

Produzione giornaliera agglomerato (tonnellate) anni 2018-2019-2020-2021-2022 (I semestre)



Produzione media mensile agglomerato (tonnellate)

