

**Abrasive Blasting
Exxon - SYU**

		Abrasive Blasting	CPP Maint. Abrasive Blasting	OTP Maint. Abrasive Blasting	POPCO Maint. Abrasive Blasting	SGTP Maint. Abrasive Blasting	TT Maint. Abrasive Blasting
		Device ID	370211	370111	370511	370411	370311
		Type of Abrasive			SJVAPCD Copper Slag		
		Qty (lbs)			19000		
		PM (lb/lb Abrasive)			0.005		
		No. Processes	3	8	1	3	4
CAS #	AB2588 No.	SJVAPCD Copper Slag	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr
N020	7440382	Arsenic Compounds	1.14E-05		1.08E-03		
N040	7440393	Barium Compounds	0.00E+00		0.00E+00		
N050	7440417	Beryllium Compounds	0.00E+00		0.00E+00		
N078	7440439	Cadmium Compounds	0.00E+00		0.00E+00		
N090	7440473	Chromium Compounds	1.00E-05		9.50E-04		
7440-48-4	7440484	Cobalt	3.08E-05		2.93E-03		
N100	7440508	Copper Compounds	4.97E-04		4.72E-02		
18540-29-9	18540299	Hexavalent Chromium	5.00E-07		4.75E-05		
N420	7439921	Lead Compounds	1.44E-04		1.37E-02		
N450	7439965	Manganese Compounds	3.05E-05		2.89E-03		
N458	7439976	Mercury Compounds	0.00E+00		0.00E+00		
N495	7440020	Nickel Compounds	1.84E-06		1.75E-04		
N725	7782492	Selenium Compounds	0.00E+00		0.00E+00		
N982	7440666	Zinc Compounds	5.85E-04		5.56E-02		

**Abrasive Blasting
Exxon - SYU**

Abrasive Blasting			CPP Maint. Abrasive Blasting	OTP Maint. Abrasive Blasting	POPCO Maint. Abrasive Blasting	SGTP Maint. Abrasive Blasting	TT Maint. Abrasive Blasting
Device ID			370211	370111	370511	370411	370311
Type of Abrasive					SJVAPCD Copper Slag		
Qty (lbs)					730.00		
PM (lb/lb Abrasive)					0.005		
No. Processes			3	8	1	3	4
SJVAPCD Copper Slag			lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
CAS #	AB2588 No.						
N020	7440382	Arsenic Compounds	1.14E-05		4.15E-05		
N040	7440393	Barium Compounds	0.00E+00		0.00E+00		
N050	7440417	Beryllium Compounds	0.00E+00		0.00E+00		
N078	7440439	Cadmium Compounds	0.00E+00		0.00E+00		
N090	7440473	Chromium Compounds	1.00E-05		3.65E-05		
7440-48-4	7440484	Cobalt	3.08E-05		1.12E-04		
N100	7440508	Copper Compounds	4.97E-04		1.81E-03		
18540-29-9	18540299	Hexavalent Chromium	5.00E-07		1.83E-06		
N420	7439921	Lead Compounds	1.44E-04		5.26E-04		
N450	7439965	Manganese Compounds	3.05E-05		1.11E-04		
N458	7439976	Mercury Compounds	0.00E+00		0.00E+00		
N495	7440020	Nickel Compounds	1.84E-06		6.72E-06		
N725	7782492	Selenium Compounds	0.00E+00		0.00E+00		
N982	7440666	Zinc Compounds	5.85E-04		2.14E-03		

Notes:

EPA AP-42 Section 13.2.6, Table 2-2 defines sand flow rate based on nozzle diameter and nozzle pressure. Abrasive blasting activities at ExxonMobil are typically completed with a 3/8" nozzle at 90 psi.
 Sand Flow Rate: 657 lb/hr
 Quantity of Abrasive through nozzle/hour adjusted based on density of abrasive relative to density of sand.
 Density of Sand: 99 lb/ft³
Abrasive Flow Rate: 730 lb/hr
 PM Emission factor (lb PM/lb Abrasive) As reported by San Diego APCD

**Acids and Caustics
Exxon - SYU**

Exxon - SYU

CAS No.	Stream Type	AB2588 No.	Caustic							Corrosion Inhibitor
			Sodium Hydroxide (25%)	Hydrochloric Acid	Phosphoric Acid	DGME	Hydrazine	Sodium Hydroxide (3%)		
			MSDS	MSDS	MSDS	MSDS	MSDS	MSDS	MSDS	
100-41-4	Ethylbenzene	100414							0.10	
1330-20-7	Xylenes (mixed isomers)	1330207							0.05	
112-34-5	Butyl Dioxitol	112345				0.10				
497-18-7	Hydrazine						0.000100			
7647-01-0	Hydrogen Chloride	7647010		0.38						
67-63-0	Isopropyl Alcohol	67630							0.30	
91-20-3	Naphthalene	91203							0.01	
7664-38-2	Phosphoric Acid	7664382			0.85					
1310-73-2	Sodium Hydroxide	1310732	0.20					0.04		
	Weight Percent		0.200	0.380	0.850	0.100	0.0001	0.040		
	Vapor Pressure	mm Hg	0.030	0.700	0.700	0.020	14.400	0.030		

Device	Foam Tank	Foam Tank	Deaerator	Steam System Chemical Injection System	Acid Skid	HCL Tank A	HCL Tank B	Phosphoric Acid Tank	Caustic Skid	Caustic Tank	Demineralizer Caustic Tank	Fresh Caustic Day Tank	Waste Caustic Tank	Cooling Water System
Device ID	114410	134040	121110	225020	125060	114361	114362	114370	225050	114380	114100	244120	214550	224060
Surface Area (ft ²)	44.2	19.6	112	3.14	19.6	307.9	307.9	78.5	19.6	176.7	78.5	9.62	78.5	3.14
Control Efficiency						95%	95%							
Annual Hours of Operation	8760	8760	8760	8760	8760	8760	8760	8760	8760	8760	8760	8760	OOS	8760
Msw (lb/lb H2O)	8.44E-05	8.44E-05	6.08E-05	6.08E-05	1.12E-02	1.12E-02	1.12E-02	2.51E-02	2.53E-04	2.53E-04	2.53E-04	2.53E-04	2.53E-04	5.06E-05
CAS #	Annual Emissions (lb/year)	DGME	DGME	Hydrazine	Hydrazine	Hydrochloric Acid	Hydrochloric Acid	Hydrochloric Acid	Phosphoric Acid	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)
112-34-5	Butyl Dioxitol	0.95	0.42											
497-18-7	Carbohydrazide													
7647-01-0	Hydrogen Chloride					56.01	43.99	43.99						
7783-06-4	Hydrogen Sulfide													
67-56-1	Methyl Alcohol													
7664-38-2	Phosphoric Acid								501.78					
1310-73-2	Sodium Hydroxide								1.26	11.39	5.06	0.62		0.04
302-01-2	Hydrazine			1.73	0.05									

**Acids and Caustics
Exxon - SYU**

	Foam Tank	Foam Tank	Deaerator	Steam System Chemical Injection System	Acid Skid	HCL Tank A	HCL Tank B	Phosphoric Acid Tank	Caustic Skid	Caustic Tank	Deminerlizer Caustic Tank	Fresh Caustic Day Tank	Waste Caustic Tank	Cooling Water System	
Device															
Device ID	114410	134040	121110	225020	125060	114361	114362	114370	225050	114380	114100	244120	214550	224060	
Surface Area (ft2)	44.2	19.6	112	3.14	19.6	307.9	307.9	78.5	19.6	176.7	78.5	9.62	78.5	3.14	
Control Efficiency						95%	95%								
Annual Hours of Operation	8760	8760	No Air Toxics	No Air Toxics	8760	8760	8760	8760	8760	8760	8760	8760	OOS	8760	
Msw (lb/lb H2O)	8.44E-05	8.44E-05			1.12E-02	1.12E-02	1.12E-02	2.51E-02	2.53E-04	2.53E-04	2.53E-04	2.53E-04	2.53E-04	5.06E-05	
CAS #	Max Hourly Emissions (lb/hr)	DGME	DGME	Carbohydrazide	Carbohydrazide	Hydrochloric Acid	Hydrochloric Acid	Hydrochloric Acid	Phosphoric Acid	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)	Sodium Hydroxide (3%)
112-34-5	Butyl Dioxitol	1.08E-04	4.81E-05												
497-18-7	Carbohydrazide														
7647-01-0	Hydrogen Chloride					6.39E-03	5.02E-03	5.02E-03							
7783-06-4	Hydrogen Sulfide														
67-56-1	Methyl Alcohol														
7664-38-2	Phosphoric Acid							5.73E-02							
1310-73-2	Sodium Hydroxide								1.44E-04	1.30E-03	5.78E-04	7.08E-05		4.62E-06	
302-01-2	Hydrazine			1.98E-04	5.55E-06										

Acids and Caustics Variables

Diffusivity of Water to Air ($D_{AB,i}$) (ft ² /hr)	0.995
Molar Flux of Water to Air (N_A) (lbmol/hr/ft ²)	0.0016
pa1 (atm)	0.0313
pa2 (atm)	-
pb1 = P - pa1	0.969
pb2 = P - pa2	1.000
$p_{bm} = (pb2 - pb1) / \ln(pb2/pb1)$	0.984
Temperature (K)	298.150
Temperature (R)	536.670
Barometric Pressure (atm)	1.000
Gas Constant (atm-ft ³ /lb mole-R)	0.730
Gas Film Thickness (ft)	0.050
Diffusivity of Water to Air at 0 C (cm ² /sec)	0.220

Notes:

The Deaerator and Steam Chemical System now use Carbohydrazide which is not an Air Toxic listed under AB2588 and does not have a health risk value under OEHHA.

The HCL Tanks are equipped with a fume scrubber to control emissions. Per Table 5 of the CARB technical guidance document the scrubber is assumed to have an emission control efficiency of 95%.

**External Combustion
Exxon - SYU**

Annual Total			POPCO External Combustion Units	Boiler A -- natural gas	Boiler A -- Stretford Tailgas	Boiler B -- natural gas	Boiler B -- Stretford Tailgas	POPCO External Combustion Units	GPU TEG Glycol Reboiler	Suffinol TEG Reboiler
Device ID	150021	150022	150031	150032	Device ID	150050	150040			
Location	POPCO	POPCO	POPCO	POPCO	Location	POPCO	POPCO			
Fuel Type	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Fuel Type	Natural Gas	Natural Gas			
Fuel Units	MMscf	MMscf	MMscf	MMscf	Fuel Units	MMscf	MMscf			
Fuel Quantity	94.2429	440.0765	93.7324	664.4231	Fuel Quantity	1.6	7.7			
CAS #	AB2588 No.		10-100 MMBTU/hr (lbs/MMscf)	lb/year	lb/year	lb/year	lb/year	<10 MMBTU/hr (lbs/MMscf)	lb/year	lb/year
107-02-8	107028	Acrolein	0.0027	2.54E-01	1.19E+00	2.53E-01	1.79E+00	0.0027	4.32E-03	2.08E-02
108-88-3	108883	Toluene	0.0265	2.50E+00	1.17E+01	2.48E+00	1.76E+01	0.0366	5.86E-02	2.82E-01
110-54-3	110543	Hexane (-n)	0.0046	4.34E-01	2.02E+00	4.31E-01	3.06E+00	0.0063	1.01E-02	4.85E-02
115-07-1	115071	Propylene	0.53	4.99E+01	2.33E+02	4.97E+01	3.52E+02	0.731	1.17E+00	5.63E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.0197	1.86E+00	8.67E+00	1.85E+00	1.31E+01	0.0272	4.35E-02	2.09E-01
50-00-0	50000	Formaldehyde	0.0123	1.16E+00	5.41E+00	1.15E+00	8.17E+00	0.017	2.72E-02	1.31E-01
71-43-2	71432	Benzene	0.0058	5.47E-01	2.55E+00	5.44E-01	3.85E+00	0.008	1.28E-02	6.16E-02
75-07-0	75070	Acetaldehyde	0.0031	2.92E-01	1.36E+00	2.91E-01	2.06E+00	0.0043	6.88E-03	3.31E-02
91-20-3	91203	Naphthalene	0.0003	2.83E-02	1.32E-01	2.81E-02	1.99E-01	0.0003	4.80E-04	2.31E-03
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0001	9.42E-03	4.40E-02	9.37E-03	6.64E-02	0.0001	1.60E-04	7.70E-04
		Ethyl Benzene	0.0069	6.50E-01	3.04E+00	6.47E-01	4.58E+00	0.0095	1.52E-02	7.32E-02

**External Combustion
Exxon - SYU**

Max Hourly

POPCO External Combustion Units			Boiler A -- natural gas	Boiler A -- Stretford Tailgas	Boiler B -- natural gas	Boiler B -- Stretford Tailgas	POPCO External Combustion Units	GPU TEG Glycol Reboiler	Sulfinol TEG Reboiler	
Device ID	150021	150022	150031	150032	Device ID	150050	150040			
Location	POPCO	POPCO	POPCO	POPCO	Location	POPCO	POPCO			
Max Rating (MMBtu/hr)	41	5.62	41	5.62	Max Rating (MMBtu/hr)	1.2	2.1			
Fuel Type	Natural Gas	Natural Gas	Natural Gas	Tail Gas	Fuel Type	Natural Gas	Natural Gas			
Fuel Units	MMscf	MMscf	MMscf	No Units	Fuel Units	MMscf	MMscf			
Fuel Quantity (MMScf/hr)	0.035	0.182	0.035	0.182	Fuel Quantity (MMScf/hr)	0.001	0.002			
HHV	1176	30.96	1176	30.96	HHV	1176	1176			
CAS #	AB2588 No.		10-100 MMBTU/hr (lbs/MMScf)	lb/hr	lb/hr	lb/hr	lb/hr	<10 MMBTU/hr (lbs/MMscf)	lb/hr	lb/hr
107-02-8	107028	Acrolein	0.0027	9.41E-05	4.90E-04	9.41E-05	4.90E-04	0.0027	2.76E-06	4.82E-06
108-88-3	108883	Toluene	0.0265	9.24E-04	4.81E-03	9.24E-04	4.81E-03	0.0366	3.73E-05	6.54E-05
110-54-3	110543	Hexane (-n)	0.0046	1.60E-04	8.35E-04	1.60E-04	8.35E-04	0.0063	6.43E-06	1.13E-05
115-07-1	115071	Propylene	0.53	1.85E-02	9.62E-02	1.85E-02	9.62E-02	0.731	7.46E-04	1.31E-03
1330-20-7	1330207	Xylenes (mixed isomers)	0.0197	6.87E-04	3.58E-03	6.87E-04	3.58E-03	0.0272	2.78E-05	4.86E-05
50-00-0	50000	Formaldehyde	0.0123	4.29E-04	2.23E-03	4.29E-04	2.23E-03	0.017	1.73E-05	3.04E-05
71-43-2	71432	Benzene	0.0058	2.02E-04	1.05E-03	2.02E-04	1.05E-03	0.008	8.16E-06	1.43E-05
75-07-0	75070	Acetaldehyde	0.0031	1.08E-04	5.63E-04	1.08E-04	5.63E-04	0.0043	4.39E-06	7.68E-06
91-20-3	91203	Naphthalene	0.0003	1.05E-05	5.45E-05	1.05E-05	5.45E-05	0.0003	3.06E-07	5.36E-07
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0001	3.49E-06	1.82E-05	3.49E-06	1.82E-05	0.0001	1.02E-07	1.79E-07
		Ethyl Benzene	0.0069	2.41E-04	1.25E-03	2.41E-04	1.25E-03	0.0095	9.69E-06	1.70E-05

Notes:

HHV data for POPCO natural gas and tailgas per fuel gas analyses.

External Combustion
Exxon - SYU

Total Emissions:
2.51E-02
3.40E-01
5.86E-02
6.80E+00
2.53E-01
1.58E-01
7.44E-02
4.00E-02
2.79E-03
9.30E-04
8.84E-02

External Combustion
Exxon - SYU

Total Emissions:
7.58E-06
1.03E-04
1.77E-05
2.05E-03
7.63E-05
4.77E-05
2.24E-05
1.21E-05
8.42E-07
2.81E-07
2.67E-05

**Internal Combustion
Exxon - SYU**

Annual Total

Internal Combustion Units	Emergency Air Generator	Emergency Generator (G-800)	Firewater Pump A	Firewater Pump B	Stang Pump	Firewater Pump (805)	Firewater Pump (806)			
Device ID	150090	150060	113961	113962	119990	150070	150080			
Location	POPCO	POPCO	LFC	LFC	LFC	POPCO	POPCO			
Fuel Type	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel			
Fuel Units	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal			
Emission Tier	T0	T0	T0	T0	T0	T0	T0			
Hours of Operation	2.1	2.1	25.5	28.0	OOS	25.1	24.5			
Fuel Quantity	0.2800	0.0200	0.3338	0.3665	-	0.5600	3.5400			
Fuel Cons. Rate (Mgal/hr)	0.006320	0.002961	0.013550	0.013550	0.013095	0.023912	0.023912			
HP	111	52	238	238	230	420	420			
Estimated Load Factor	0.60	0.70	0.55	0.55	0.55	0.50	0.50			
CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year
9901	9901	Diesel Particulate Matter	1.0000	3.08E-01	1.69E-01	7.36E+00	8.08E+00		1.16E+01	1.13E+01
100-41-4	100414	Ethylbenzene	0.0109	8.68E-05	4.74E-05	2.07E-03	2.27E-03		3.27E-03	3.19E-03
106-99-0	106990	1,3-Butadiene	0.2174	1.73E-03	9.46E-04	4.13E-02	4.54E-02		6.52E-02	6.37E-02
107-02-8	107028	Acrolein	0.0339	2.70E-04	1.48E-04	6.44E-03	7.07E-03		1.02E-02	9.93E-03
108-88-3	108883	Toluene	0.1054	8.39E-04	4.59E-04	2.00E-02	2.20E-02		3.16E-02	3.09E-02
108-90-7	108907	Chlorobenzene	0.0002	1.59E-06	8.70E-07	3.80E-05	4.17E-05		6.00E-05	5.86E-05
110-54-3	110543	Hexane (n)	0.0269	2.14E-04	1.17E-04	5.11E-03	5.61E-03		8.07E-03	7.88E-03
115-07-1	115071	Propylene	0.4670	3.72E-03	2.03E-03	8.88E-02	9.75E-02		1.40E-01	1.37E-01
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	3.38E-04	1.85E-04	8.06E-03	8.85E-03		1.27E-02	1.24E-02
18540-29-9	18540299	Hexavalent Chromium	0.0001	7.96E-07	4.35E-07	1.90E-05	2.09E-05		3.00E-05	2.93E-05
50-00-0	50000	Formaldehyde	1.7261	1.37E-02	7.51E-03	3.28E-01	3.60E-01		5.18E-01	5.06E-01
71-43-2	71432	Benzene	0.1863	1.48E-03	8.11E-04	3.54E-02	3.89E-02		5.59E-02	5.46E-02
75-07-0	75070	Acetaldehyde	0.7833	6.24E-03	3.41E-03	1.49E-01	1.63E-01		2.35E-01	2.29E-01
7647-01-0	7647010	Hydrogen Chloride	0.1863	1.48E-03	8.11E-04	3.54E-02	3.89E-02		5.59E-02	5.46E-02
91-20-3	91203	Naphthalene	0.0197	1.57E-04	8.57E-05	3.74E-03	4.11E-03		5.91E-03	5.77E-03
N020	7440382	Arsenic Compounds	0.0016	1.27E-05	6.96E-06	3.04E-04	3.34E-04		4.80E-04	4.69E-04
N078	7440439	Cadmium Compounds	0.0015	1.19E-05	6.53E-06	2.85E-04	3.13E-04		4.50E-04	4.39E-04
N090	7440473	Chromium Compounds	0.0006	4.78E-06	2.61E-06	1.14E-04	1.25E-04		1.80E-04	1.76E-04
N100	7440508	Copper Compounds	0.0041	3.26E-05	1.78E-05	7.79E-04	8.56E-04		1.23E-03	1.20E-03
N420	7439921	Lead Compounds	0.0083	6.61E-05	3.61E-05	1.58E-03	1.73E-03		2.49E-03	2.43E-03
N450	7439965	Manganese Compounds	0.0031	2.47E-05	1.35E-05	5.89E-04	6.47E-04		9.30E-04	9.08E-04
N458	7439976	Mercury Compounds	0.0020	1.59E-05	8.70E-06	3.80E-04	4.17E-04		6.00E-04	5.86E-04
N495	7440020	Nickel Compounds	0.0039	3.11E-05	1.70E-05	7.41E-04	8.14E-04		1.17E-03	1.14E-03
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0362	2.88E-04	1.58E-04	6.88E-03	7.55E-03		1.09E-02	1.06E-02
N725	7782492	Selenium Compounds	0.0022	1.75E-05	9.57E-06	4.18E-04	4.59E-04		6.60E-04	6.44E-04
N982	7440666	Zinc Compounds	0.0224	1.78E-04	9.75E-05	4.26E-03	4.67E-03		6.72E-03	6.56E-03

Permit Exempt Internal Combustion Units	Generator #PR1254	Permit Exempt Internal Combustion Units
Device ID	POP20	Device ID
Location	POP	Location
Fuel Type	Diesel	Fuel Type
Fuel Units	Mgal	Fuel Units
Emission Tier	T2-GS-1	Emission Tier
Hours of Operation	41.70	Hours of Operation
Fuel Quantity	1.7692	Fuel Quantity
Fuel Cons. Rate (Mgal/hr)	0.042427	Fuel Cons. Rate (Mgal/hr)
HP	775	HP
Estimated Load Factor	0.22	Estimated Load Factor
Diesel Internal Combustion > 600 bhp (lb/Mgal)	lb/year	Diesel Internal Combustion < 600 bhp (lb/Mgal)
0.1500	2.35E+00	0.2200
0.0109	0.00E+00	0.0109
0.2174	0.00E+00	0.2174
0.0339	0.00E+00	0.0339
0.1054	0.00E+00	0.1054
0.0002	0.00E+00	0.0002
0.0269	0.00E+00	0.0269
0.4670	0.00E+00	0.4670
0.0424	0.00E+00	0.0424
0.0001	0.00E+00	0.0001
1.7261	0.00E+00	1.7261
0.1863	0.00E+00	0.1863
0.7833	0.00E+00	0.7833
0.1863	0.00E+00	0.1863
0.0197	0.00E+00	0.0197
0.0016	0.00E+00	0.0016
0.0015	0.00E+00	0.0015
0.0006	0.00E+00	0.0006
0.0041	0.00E+00	0.0041
0.0083	0.00E+00	0.0083
0.0031	0.00E+00	0.0031
0.0020	0.00E+00	0.0020
0.0039	0.00E+00	0.0039
0.0362	0.00E+00	0.0362
0.0022	0.00E+00	0.0022
0.0224	0.00E+00	0.0224

**Internal Combustion
Exxon - SYU**

Max Hourly

Internal Combustion Units	Emergency Air Generator	Emergency Generator (G-800)	Firewater Pump A	Firewater Pump B	Stang Pump	Firewater Pump (805)	Firewater Pump (806)
Device ID	150090	150060	113961	113962	119990	150070	150080
Location	POPCO	POPCO	LFC	LFC	LFC	POPCO	POPCO
Fuel Type	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Fuel Units	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal
Emission Tier	T0	T0	T0	T0	T0	T0	T0
Fuel Quantity	0.0063	0.0030	0.0136	0.0136	-	0.0239	0.0239
Fuel Cons. Rate (Mgal/hr)	0.006320	0.002961	0.013550	0.013550	OOS	0.023912	0.023912
HP	111	52	238	238	230	420	420

CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
100-41-4	100414	Ethylbenzene	0.0109	6.89E-05	3.23E-05	1.48E-04	1.48E-04		2.61E-04	2.61E-04
106-99-0	106990	1,3-Butadiene	0.2174	1.37E-03	6.44E-04	2.95E-03	2.95E-03		5.20E-03	5.20E-03
107-02-8	107028	Acrolein	0.0339	2.14E-04	1.00E-04	4.59E-04	4.59E-04		8.11E-04	8.11E-04
108-88-3	108883	Toluene	0.1054	6.66E-04	3.12E-04	1.43E-03	1.43E-03		2.52E-03	2.52E-03
108-90-7	108907	Chlorobenzene	0.0002	1.26E-06	5.92E-07	2.71E-06	2.71E-06		4.78E-06	4.78E-06
110-54-3	110543	Hexane (-n)	0.0269	1.70E-04	7.96E-05	3.65E-04	3.65E-04		6.43E-04	6.43E-04
115-07-1	115071	Propylene	0.4670	2.95E-03	1.38E-03	6.33E-03	6.33E-03		1.12E-02	1.12E-02
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	2.68E-04	1.26E-04	5.75E-04	5.75E-04		1.01E-03	1.01E-03
18540-29-9	18540299	Hexavalent Chromium	0.0001	6.32E-07	2.96E-07	1.36E-06	1.36E-06		2.39E-06	2.39E-06
50-00-0	50000	Formaldehyde	1.7261	1.09E-02	5.11E-03	2.34E-02	2.34E-02		4.13E-02	4.13E-02
71-43-2	71432	Benzene	0.1863	1.18E-03	5.52E-04	2.52E-03	2.52E-03		4.45E-03	4.45E-03
75-07-0	75070	Acetaldehyde	0.7833	4.95E-03	2.32E-03	1.06E-02	1.06E-02		1.87E-02	1.87E-02
7647-01-0	7647010	Hydrogen Chloride	0.1863	1.18E-03	5.52E-04	2.52E-03	2.52E-03		4.45E-03	4.45E-03
91-20-3	91203	Naphthalene	0.0197	1.24E-04	5.83E-05	2.67E-04	2.67E-04		4.71E-04	4.71E-04
N020	7440382	Arsenic Compounds	0.0016	1.01E-05	4.74E-06	2.17E-05	2.17E-05		3.83E-05	3.83E-05
N078	7440439	Cadmium Compounds	0.0015	9.48E-06	4.44E-06	2.03E-05	2.03E-05		3.59E-05	3.59E-05
N090	7440473	Chromium Compounds	0.0006	3.79E-06	1.78E-06	8.13E-06	8.13E-06		1.43E-05	1.43E-05
N100	7440508	Copper Compounds	0.0041	2.59E-05	1.21E-05	5.56E-05	5.56E-05		9.80E-05	9.80E-05
N420	7439921	Lead Compounds	0.0083	5.25E-05	2.46E-05	1.12E-04	1.12E-04		1.98E-04	1.98E-04
N450	7439965	Manganese Compounds	0.0031	1.96E-05	9.18E-06	4.20E-05	4.20E-05		7.41E-05	7.41E-05
N458	7439976	Mercury Compounds	0.0020	1.26E-05	5.92E-06	2.71E-05	2.71E-05		4.78E-05	4.78E-05
N495	7440020	Nickel Compounds	0.0039	2.46E-05	1.15E-05	5.28E-05	5.28E-05		9.33E-05	9.33E-05
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0362	2.29E-04	1.07E-04	4.91E-04	4.91E-04		8.66E-04	8.66E-04
N725	7782492	Selenium Compounds	0.0022	1.39E-05	6.51E-06	2.98E-05	2.98E-05		5.26E-05	5.26E-05
N982	7440666	Zinc Compounds	0.0224	1.42E-04	6.63E-05	3.04E-04	3.04E-04		5.36E-04	5.36E-04

Permit Exempt Internal Combustion Units	Generator#MPR1 254	Permit Exempt Internal Combustion Units
Device ID	POP20	Device ID
Location	POP	Location
Fuel Type	Diesel	Fuel Type
Fuel Units	Mgal	Fuel Units
Emission Tier	T2-GS-1	Emission Tier
Fuel Quantity	0.0424	Fuel Quantity
Fuel Cons. Rate (Mgal/hr)	0.042427	Fuel Cons. Rate (Mgal/hr)
HP	775	HP
Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	Diesel Internal Combustion < 600 bhp (lb/Mgal)
0.0109	0.00E+00	0.0109
0.2174	0.00E+00	0.2174
0.0339	0.00E+00	0.0339
0.1054	0.00E+00	0.1054
0.0002	0.00E+00	0.0002
0.0269	0.00E+00	0.0269
0.467	0.00E+00	0.467
0.0424	0.00E+00	0.0424
0.0001	0.00E+00	0.0001
1.7261	0.00E+00	1.7261
0.1863	0.00E+00	0.1863
0.7833	0.00E+00	0.7833
0.1863	0.00E+00	0.1863
0.0197	0.00E+00	0.0197
0.0016	0.00E+00	0.0016
0.0015	0.00E+00	0.0015
0.0006	0.00E+00	0.0006
0.0041	0.00E+00	0.0041
0.0083	0.00E+00	0.0083
0.0031	0.00E+00	0.0031
0.002	0.00E+00	0.002
0.0039	0.00E+00	0.0039
0.0165	0.00E+00	0.0165
0.0022	0.00E+00	0.0022
0.0224	0.00E+00	0.0224

**Internal Combustion
Exxon - SYU**

Annual Total	Generator #253234
	POP21
	POP
	Diesel
	Mgal
	T2-3
	44.00
	0.3541
	0.008047
	147
0.22	

CAS #	AB2588 No.	Compound Name	lb/year
9901	9901	Diesel Particulate Matter	6.90E-01
100-41-4	100414	Ethylbenzene	8.49E-04
106-99-0	106990	1,3-Butadiene	1.69E-02
107-02-8	107028	Acrolein	2.64E-03
108-88-3	108883	Toluene	8.21E-03
108-90-7	108907	Chlorobenzene	1.56E-05
110-54-3	110543	Hexane (n)	2.10E-03
115-07-1	115071	Propylene	3.64E-02
1330-20-7	1330207	Xylenes (mixed isomers)	3.30E-03
18540-29-9	18540299	Hexavalent Chromium	7.79E-06
50-00-0	50000	Formaldehyde	1.34E-01
71-43-2	71432	Benzene	1.45E-02
75-07-0	75070	Acetaldehyde	6.10E-02
7647-01-0	7647010	Hydrogen Chloride	1.45E-02
91-20-3	91203	Naphthalene	1.53E-03
N020	7440382	Arsenic Compounds	1.25E-04
N078	7440439	Cadmium Compounds	1.17E-04
N090	7440473	Chromium Compounds	4.67E-05
N100	7440508	Copper Compounds	3.19E-04
N420	7439921	Lead Compounds	6.47E-04
N450	7439965	Manganese Compounds	2.41E-04
N458	7439976	Mercury Compounds	1.56E-04
N495	7440020	Nickel Compounds	3.04E-04
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	2.82E-03
N725	7782492	Selenium Compounds	1.71E-04
N982	7440666	Zinc Compounds	1.74E-03

**Internal Combustion
Exxon - SYU**

Max Hourly

Generator#253
234
POP21
POP
Diesel
Mgal
T2-3
0.0080
0.008047
147

CAS #	AB2588 No.	Compound Name	lb/hr
100-41-4	100414	Ethylbenzene	8.77E-05
106-99-0	106990	1,3-Butadiene	1.75E-03
107-02-8	107028	Acrolein	2.73E-04
108-88-3	108883	Toluene	8.48E-04
108-90-7	108907	Chlorobenzene	1.61E-06
110-54-3	110543	Hexane (-n)	2.16E-04
115-07-1	115071	Propylene	3.76E-03
1330-20-7	1330207	Xylenes (mixed isomers)	3.41E-04
18540-29-9	18540299	Hexavalent Chromium	8.05E-07
50-00-0	50000	Formaldehyde	1.39E-02
71-43-2	71432	Benzene	1.50E-03
75-07-0	75070	Acetaldehyde	6.30E-03
7647-01-0	7647010	Hydrogen Chloride	1.50E-03
91-20-3	91203	Naphthalene	1.59E-04
N020	7440382	Arsenic Compounds	1.29E-05
N078	7440439	Cadmium Compounds	1.21E-05
N090	7440473	Chromium Compounds	4.83E-06
N100	7440508	Copper Compounds	3.30E-05
N420	7439921	Lead Compounds	6.68E-05
N450	7439965	Manganese Compounds	2.49E-05
N458	7439976	Mercury Compounds	1.61E-05
N495	7440020	Nickel Compounds	3.14E-05
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	1.33E-04
N725	7782492	Selenium Compounds	1.77E-05
N982	7440666	Zinc Compounds	1.80E-04

**Internal Combustion
Exxon - SYU**

Annual Total

Permit Exempt Internal Combustion Units	45 KVA Generator	45KVA Generator #120145	Permit Exempt Internal Combustion Units	36KW Generator #110251	56KW Generator #120409	Permit Exempt Internal Combustion Units	Air Compressor #110225	Air Compressor #110229			
Device ID	POP7	POP19	Device ID	POP18	POP22	Device ID	POP24	POP25			
Location	POP	POP	Location	POP	POP	Location	POP	POP			
Fuel Type	Diesel	Diesel	Fuel Type	Diesel	Diesel	Fuel Type	Diesel	Diesel			
Fuel Units	Mgal	Mgal	Fuel Units	Mgal	Mgal	Fuel Units	Mgal	Mgal			
Emission Tier	T3-1	T3-1	Emission Tier	T3-2	T3-2	Emission Tier	T3-3	T3-3			
Hours of Operation	92.9	45.4	Hours of Operation	49.3000	36.0000	Hours of Operation	158.5000	25.7			
Fuel Quantity	0.3407	0.1665	Fuel Quantity	0.2024	0.1537	Fuel Quantity	1.0152	0.1646			
Fuel Cons. Rate (Mgal/hr)	0.003668	0.003668	Fuel Cons. Rate (Mgal/hr)	0.004106	0.004270	Fuel Cons. Rate (Mgal/hr)	0.006405	0.006405			
HP	67	67	HP	75	78	HP	117	117			
Estimated Load Factor	0.22	0.22	Estimated Load Factor	0.22	0.22	Estimated Load Factor	0.60	0.60			
CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	lb/year	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	lb/year	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	lb/year
9901	9901	Diesel Particulate Matter	0.3000	9.06E-01	4.43E-01	0.3000	5.38E-01	4.09E-01	0.2200	5.40E+00	8.75E-01
100-41-4	100414	Ethylbenzene	0.0109	0.00E+00	0.00E+00	0.0109	0.00E+00	0.00E+00	0.0109	0.00E+00	0.00E+00
106-99-0	106990	1,3-Butadiene	0.2174	0.00E+00	0.00E+00	0.2174	0.00E+00	0.00E+00	0.2174	0.00E+00	0.00E+00
107-02-8	107028	Acrolein	0.0339	0.00E+00	0.00E+00	0.0339	0.00E+00	0.00E+00	0.0339	0.00E+00	0.00E+00
108-88-3	108883	Toluene	0.1054	0.00E+00	0.00E+00	0.1054	0.00E+00	0.00E+00	0.1054	0.00E+00	0.00E+00
108-90-7	108907	Chlorobenzene	0.0002	0.00E+00	0.00E+00	0.0002	0.00E+00	0.00E+00	0.0002	0.00E+00	0.00E+00
110-54-3	110543	Hexane (n)	0.0269	0.00E+00	0.00E+00	0.0269	0.00E+00	0.00E+00	0.0269	0.00E+00	0.00E+00
115-07-1	115071	Propylene	0.4670	0.00E+00	0.00E+00	0.4670	0.00E+00	0.00E+00	0.4670	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	0.00E+00	0.00E+00	0.0424	0.00E+00	0.00E+00	0.0424	0.00E+00	0.00E+00
18540-29-9	18540299	Hexavalent Chromium	0.0001	0.00E+00	0.00E+00	0.0001	0.00E+00	0.00E+00	0.0001	0.00E+00	0.00E+00
50-00-0	50000	Formaldehyde	1.7261	0.00E+00	0.00E+00	1.7261	0.00E+00	0.00E+00	1.7261	0.00E+00	0.00E+00
71-43-2	71432	Benzene	0.1863	0.00E+00	0.00E+00	0.1863	0.00E+00	0.00E+00	0.1863	0.00E+00	0.00E+00
75-07-0	75070	Acetaldehyde	0.7833	0.00E+00	0.00E+00	0.7833	0.00E+00	0.00E+00	0.7833	0.00E+00	0.00E+00
7647-01-0	7647010	Hydrogen Chloride	0.1863	0.00E+00	0.00E+00	0.1863	0.00E+00	0.00E+00	0.1863	0.00E+00	0.00E+00
91-20-3	91203	Naphthalene	0.0197	0.00E+00	0.00E+00	0.0197	0.00E+00	0.00E+00	0.0197	0.00E+00	0.00E+00
N020	7440382	Arsenic Compounds	0.0016	0.00E+00	0.00E+00	0.0016	0.00E+00	0.00E+00	0.0016	0.00E+00	0.00E+00
N078	7440439	Cadmium Compounds	0.0015	0.00E+00	0.00E+00	0.0015	0.00E+00	0.00E+00	0.0015	0.00E+00	0.00E+00
N090	7440473	Chromium Compounds	0.0006	0.00E+00	0.00E+00	0.0006	0.00E+00	0.00E+00	0.0006	0.00E+00	0.00E+00
N100	7440508	Copper Compounds	0.0041	0.00E+00	0.00E+00	0.0041	0.00E+00	0.00E+00	0.0041	0.00E+00	0.00E+00
N420	7439921	Lead Compounds	0.0083	0.00E+00	0.00E+00	0.0083	0.00E+00	0.00E+00	0.0083	0.00E+00	0.00E+00
N450	7439965	Manganese Compounds	0.0031	0.00E+00	0.00E+00	0.0031	0.00E+00	0.00E+00	0.0031	0.00E+00	0.00E+00
N458	7439976	Mercury Compounds	0.0020	0.00E+00	0.00E+00	0.0020	0.00E+00	0.00E+00	0.0020	0.00E+00	0.00E+00
N495	7440020	Nickel Compounds	0.0039	0.00E+00	0.00E+00	0.0039	0.00E+00	0.00E+00	0.0039	0.00E+00	0.00E+00
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0362	0.00E+00	0.00E+00	0.0362	0.00E+00	0.00E+00	0.0362	0.00E+00	0.00E+00
N725	7782492	Selenium Compounds	0.0022	0.00E+00	0.00E+00	0.0022	0.00E+00	0.00E+00	0.0022	0.00E+00	0.00E+00
N982	7440666	Zinc Compounds	0.0224	0.00E+00	0.00E+00	0.0224	0.00E+00	0.00E+00	0.0224	0.00E+00	0.00E+00

**Internal Combustion
Exxon - SYU**

Max Hourly

Permit Exempt Internal Combustion Units	45 KVA Generator	45KVA Generator#120 145	Permit Exempt Internal Combustion Units	36KW Generator#110 251	56KW Generator#120 409	Permit Exempt Internal Combustion Units	Air Compressor#11 0225	Air Compressor#11 0229
Device ID	POP7	POP19	Device ID	POP18	POP22	Device ID	POP24	POP25
Location	POP	POP	Location	POP	POP	Location	POP	POP
Fuel Type	Diesel	Diesel	Fuel Type	Diesel	Diesel	Fuel Type	Diesel	Diesel
Fuel Units	Mgal	Mgal	Fuel Units	Mgal	Mgal	Fuel Units	Mgal	Mgal
Emission Tier	T3-1	T3-1	Emission Tier	T3-2	T3-2	Emission Tier	T3-3	T3-3
Fuel Quantity	0.0037	0.0037	Fuel Quantity	0.0041	0.0043	Fuel Quantity	0.0064	0.0064
Fuel Cons. Rate (Mgal/hr)	0.003668	0.003668	Fuel Cons. Rate (Mgal/hr)	0.004106	0.004270	Fuel Cons. Rate (Mgal/hr)	0.006405	0.006405
HP	67	67	HP	75	78	HP	117	117

CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr
100-41-4	100414	Ethylbenzene	0.0109	0.00E+00	0.00E+00	0.0109	0.00E+00	0.00E+00	0.0109	0.00E+00	0.00E+00
106-99-0	106990	1,3-Butadiene	0.2174	0.00E+00	0.00E+00	0.2174	0.00E+00	0.00E+00	0.2174	0.00E+00	0.00E+00
107-02-8	107028	Acrolein	0.0339	0.00E+00	0.00E+00	0.0339	0.00E+00	0.00E+00	0.0339	0.00E+00	0.00E+00
108-88-3	108883	Toluene	0.1054	0.00E+00	0.00E+00	0.1054	0.00E+00	0.00E+00	0.1054	0.00E+00	0.00E+00
108-90-7	108907	Chlorobenzene	0.0002	0.00E+00	0.00E+00	0.0002	0.00E+00	0.00E+00	0.0002	0.00E+00	0.00E+00
110-54-3	110543	Hexane (-n)	0.0269	0.00E+00	0.00E+00	0.0269	0.00E+00	0.00E+00	0.0269	0.00E+00	0.00E+00
115-07-1	115071	Propylene	0.467	0.00E+00	0.00E+00	0.467	0.00E+00	0.00E+00	0.467	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	0.00E+00	0.00E+00	0.0424	0.00E+00	0.00E+00	0.0424	0.00E+00	0.00E+00
18540-29-9	18540299	Hexavalent Chromium	0.0001	0.00E+00	0.00E+00	0.0001	0.00E+00	0.00E+00	0.0001	0.00E+00	0.00E+00
50-00-0	50000	Formaldehyde	1.7261	0.00E+00	0.00E+00	1.7261	0.00E+00	0.00E+00	1.7261	0.00E+00	0.00E+00
71-43-2	71432	Benzene	0.1863	0.00E+00	0.00E+00	0.1863	0.00E+00	0.00E+00	0.1863	0.00E+00	0.00E+00
75-07-0	75070	Acetaldehyde	0.7833	0.00E+00	0.00E+00	0.7833	0.00E+00	0.00E+00	0.7833	0.00E+00	0.00E+00
7647-01-0	7647010	Hydrogen Chloride	0.1863	0.00E+00	0.00E+00	0.1863	0.00E+00	0.00E+00	0.1863	0.00E+00	0.00E+00
91-20-3	91203	Naphthalene	0.0197	0.00E+00	0.00E+00	0.0197	0.00E+00	0.00E+00	0.0197	0.00E+00	0.00E+00
N020	7440382	Arsenic Compounds	0.0016	0.00E+00	0.00E+00	0.0016	0.00E+00	0.00E+00	0.0016	0.00E+00	0.00E+00
N078	7440439	Cadmium Compounds	0.0015	0.00E+00	0.00E+00	0.0015	0.00E+00	0.00E+00	0.0015	0.00E+00	0.00E+00
N090	7440473	Chromium Compounds	0.0006	0.00E+00	0.00E+00	0.0006	0.00E+00	0.00E+00	0.0006	0.00E+00	0.00E+00
N100	7440508	Copper Compounds	0.0041	0.00E+00	0.00E+00	0.0041	0.00E+00	0.00E+00	0.0041	0.00E+00	0.00E+00
N420	7439921	Lead Compounds	0.0083	0.00E+00	0.00E+00	0.0083	0.00E+00	0.00E+00	0.0083	0.00E+00	0.00E+00
N450	7439965	Manganese Compounds	0.0031	0.00E+00	0.00E+00	0.0031	0.00E+00	0.00E+00	0.0031	0.00E+00	0.00E+00
N458	7439976	Mercury Compounds	0.002	0.00E+00	0.00E+00	0.002	0.00E+00	0.00E+00	0.002	0.00E+00	0.00E+00
N495	7440020	Nickel Compounds	0.0039	0.00E+00	0.00E+00	0.0039	0.00E+00	0.00E+00	0.0039	0.00E+00	0.00E+00
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0165	0.00E+00	0.00E+00	0.0165	0.00E+00	0.00E+00	0.0165	0.00E+00	0.00E+00
N725	7782492	Selenium Compounds	0.0022	0.00E+00	0.00E+00	0.0022	0.00E+00	0.00E+00	0.0022	0.00E+00	0.00E+00
N982	7440666	Zinc Compounds	0.0224	0.00E+00	0.00E+00	0.0224	0.00E+00	0.00E+00	0.0224	0.00E+00	0.00E+00

**Internal Combustion
Exxon - SYU**

Annual Total			Permit Exempt Internal Combustion Units	Light Tower #100274	Light Tower #100277	Light Tower #100323	Light Tower #100286	Light Tower #120006	Light Tower #120025	Light Tower #120024	Light Tower #280248	Light Tower #120295	Unpermitted -- Portable at POPCO
Device ID	POP9	POP10	POP11	POP12	POP13	POP14	POP15	POP16	POP17	POP18	POP19	POP20	300510
Location	POP	POP	POP	POP	POP	POP	POP	POP	POP	POP	POP	POP	POP
Fuel Type	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Fuel Units	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	
Emission Tier	T0	T0	T0	T0	T0	T0	T0	T0	T0	T0	T0	T0	
Hours of Operation	167.4000	4.8	25.7000	164	116.1000	29.0000	16.7000	16.9000	15.7				
Fuel Quantity	0.1466	0.0042	0.0225	0.1436	0.0890	0.0175	0.0101	0.0102	0.0095				
Fuel Cons. Rate (Mgal/hr)	0.000876	0.000876	0.000876	0.000876	0.000766	0.000602	0.000602	0.000602	0.000602				
HP	16	16	16	16	14	11	11	11	11				
Estimated Load Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70				
CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	Total Emissions (lb/year):
9901	9901	Diesel Particulate Matter	0.6000	2.48E+00	7.11E-02	3.81E-01	2.43E+00	1.51E+00	2.95E-01	1.70E-01	1.72E-01	1.60E-01	1.93E+01
100-41-4	100414	Ethylbenzene	0.0109	1.12E-03	3.21E-05	1.72E-04	1.10E-03	6.79E-04	1.33E-04	7.67E-05	7.77E-05	7.21E-05	4.31E-03
106-99-0	106990	1,3-Butadiene	0.2174	2.23E-02	6.40E-04	3.43E-03	2.19E-02	1.35E-02	2.66E-03	1.53E-03	1.55E-03	1.44E-03	8.59E-02
107-02-8	107028	Acrolein	0.0339	3.48E-03	9.98E-05	5.34E-04	3.41E-03	2.11E-03	4.14E-04	2.39E-04	2.42E-04	2.24E-04	1.34E-02
108-88-3	108883	Toluene	0.1054	1.08E-02	3.10E-04	1.66E-03	1.06E-02	6.57E-03	1.29E-03	7.42E-04	7.51E-04	6.98E-04	4.16E-02
108-90-7	108907	Chlorobenzene	0.0002	2.05E-05	5.89E-07	3.15E-06	2.01E-05	1.25E-05	2.44E-06	1.41E-06	1.42E-06	1.32E-06	7.90E-05
110-54-3	110543	Hexane (-n)	0.0269	2.76E-03	7.92E-05	4.24E-04	2.70E-03	1.68E-03	3.29E-04	1.89E-04	1.92E-04	1.78E-04	1.06E-02
115-07-1	115071	Propylene	0.4670	4.79E-02	1.37E-03	7.36E-03	4.70E-02	2.91E-02	5.71E-03	3.29E-03	3.33E-03	3.09E-03	1.85E-01
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	4.35E-03	1.25E-04	6.68E-04	4.26E-03	2.64E-03	5.18E-04	2.98E-04	3.02E-04	2.81E-04	1.68E-02
18540-29-9	18540299	Hexavalent Chromium	0.0001	1.03E-05	2.94E-07	1.58E-06	1.01E-05	6.23E-06	1.22E-06	7.04E-07	7.12E-07	6.62E-07	3.95E-05
50-00-0	50000	Formaldehyde	1.7261	1.77E-01	5.08E-03	2.72E-02	1.74E-01	1.08E-01	2.11E-02	1.22E-02	1.23E-02	1.14E-02	6.82E-01
71-43-2	71432	Benzene	0.1863	1.91E-02	5.48E-04	2.94E-03	1.87E-02	1.16E-02	2.28E-03	1.31E-03	1.33E-03	1.23E-03	7.36E-02
75-07-0	75070	Acetaldehyde	0.7833	8.04E-02	2.31E-03	1.23E-02	7.88E-02	4.88E-02	9.58E-03	5.51E-03	5.58E-03	5.18E-03	3.09E-01
7647-01-0	7647010	Hydrogen Chloride	0.1863	1.91E-02	5.48E-04	2.94E-03	1.87E-02	1.16E-02	2.28E-03	1.31E-03	1.33E-03	1.23E-03	7.36E-02
91-20-3	91203	Naphthalene	0.0197	2.02E-03	5.80E-05	3.10E-04	1.98E-03	1.23E-03	2.41E-04	1.39E-04	1.40E-04	1.30E-04	7.78E-03
N020	7440382	Arsenic Compounds	0.0016	1.64E-04	4.71E-06	2.52E-05	1.61E-04	9.97E-05	1.96E-05	1.13E-05	1.14E-05	1.06E-05	6.32E-04
N078	7440439	Cadmium Compounds	0.0015	1.54E-04	4.41E-06	2.36E-05	1.51E-04	9.34E-05	1.83E-05	1.06E-05	1.07E-05	9.93E-06	5.93E-04
N090	7440473	Chromium Compounds	0.0006	6.16E-05	1.77E-06	9.45E-06	6.03E-05	3.74E-05	7.33E-06	4.22E-06	4.27E-06	3.97E-06	2.37E-04
N100	7440508	Copper Compounds	0.0041	4.21E-04	1.21E-05	6.46E-05	4.12E-04	2.55E-04	5.01E-05	2.89E-05	2.92E-05	2.71E-05	1.62E-03
N420	7439921	Lead Compounds	0.0083	8.52E-04	2.44E-05	1.31E-04	8.35E-04	5.17E-04	1.01E-04	5.84E-05	5.91E-05	5.49E-05	3.28E-03
N450	7439965	Manganese Compounds	0.0031	3.18E-04	9.12E-06	4.88E-05	3.12E-04	1.93E-04	3.79E-05	2.18E-05	2.21E-05	2.05E-05	1.22E-03
N458	7439976	Mercury Compounds	0.0020	2.05E-04	5.89E-06	3.15E-05	2.01E-04	1.25E-04	2.44E-05	1.41E-05	1.42E-05	1.32E-05	7.90E-04
N495	7440020	Nickel Compounds	0.0039	4.00E-04	1.15E-05	6.15E-05	3.92E-04	2.43E-04	4.77E-05	2.75E-05	2.78E-05	2.58E-05	1.54E-03
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0362	3.72E-03	1.07E-04	5.70E-04	3.64E-03	2.25E-03	4.43E-04	2.55E-04	2.58E-04	2.40E-04	1.43E-02
N725	7782492	Selenium Compounds	0.0022	2.26E-04	6.47E-06	3.47E-05	2.21E-04	1.37E-04	2.69E-05	1.55E-05	1.57E-05	1.46E-05	8.69E-04
N982	7440666	Zinc Compounds	0.0224	2.30E-03	6.59E-05	3.53E-04	2.25E-03	1.40E-03	2.74E-04	1.58E-04	1.60E-04	1.48E-04	8.85E-03

**Internal Combustion
Exxon - SYU**

Max Hourly

Permit Exempt Internal Combustion Units	Light Tower #100274	Light Tower #100277	Light Tower #100323	Light Tower #100286	Light Tower #120006	Light Tower #120025	Light Tower #120024	Light Tower #280248	Light Tower #120295	Unpermitted -- Portable at POPCO
Device ID	POP9	POP10	POP11	POP12	POP13	POP14	POP15	POP16	POP17	300510
Location	POP	POP	POP	POP	POP	POP	POP	POP	POP	POP
Fuel Type	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Fuel Units	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	
Emission Tier	T0	T0	T0	T0	T0	T0	T0	T0	T0	
Fuel Quantity	0.0009	0.0009	0.0009	0.0009	0.0008	0.0006	0.0006	0.0006	0.0006	
Fuel Cons. Rate (Mgal/hr)	0.000876	0.000876	0.000876	0.000876	0.000766	0.000602	0.000602	0.000602	0.000602	
HP	16	16	16	16	14	11	11	11	11	

CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	Total Emissions (lb/hr):	
100-41-4	100414	Ethylbenzene	0.0109	9.55E-06	9.55E-06	9.55E-06	9.55E-06	8.35E-06	6.56E-06	6.56E-06	6.56E-06	6.56E-06	1.61E-04
106-99-0	106990	1,3-Butadiene	0.2174	1.90E-04	1.90E-04	1.90E-04	1.90E-04	1.67E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	3.20E-03
107-02-8	107028	Acrolein	0.0339	2.97E-05	2.97E-05	2.97E-05	2.97E-05	2.60E-05	2.04E-05	2.04E-05	2.04E-05	2.04E-05	4.99E-04
108-88-3	108883	Toluene	0.1054	9.23E-05	9.23E-05	9.23E-05	9.23E-05	8.08E-05	6.35E-05	6.35E-05	6.35E-05	6.35E-05	1.55E-03
108-90-7	108907	Chlorobenzene	0.0002	1.75E-07	1.75E-07	1.75E-07	1.75E-07	1.53E-07	1.20E-07	1.20E-07	1.20E-07	1.20E-07	2.95E-06
110-54-3	110543	Hexane (-n)	0.0269	2.36E-05	2.36E-05	2.36E-05	2.36E-05	2.06E-05	1.62E-05	1.62E-05	1.62E-05	1.62E-05	3.96E-04
115-07-1	115071	Propylene	0.467	4.09E-04	4.09E-04	4.09E-04	4.09E-04	3.58E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	6.88E-03
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	3.71E-05	3.71E-05	3.71E-05	3.71E-05	3.25E-05	2.55E-05	2.55E-05	2.55E-05	2.55E-05	6.24E-04
18540-29-9	18540299	Hexavalent Chromium	0.0001	8.76E-08	8.76E-08	8.76E-08	8.76E-08	7.66E-08	6.02E-08	6.02E-08	6.02E-08	6.02E-08	1.47E-06
50-00-0	50000	Formaldehyde	1.7261	1.51E-03	1.51E-03	1.51E-03	1.51E-03	1.32E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	2.54E-02
71-43-2	71432	Benzene	0.1863	1.63E-04	1.63E-04	1.63E-04	1.63E-04	1.43E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	2.74E-03
75-07-0	75070	Acetaldehyde	0.7833	6.86E-04	6.86E-04	6.86E-04	6.86E-04	6.00E-04	4.72E-04	4.72E-04	4.72E-04	4.72E-04	1.15E-02
7647-01-0	7647010	Hydrogen Chloride	0.1863	1.63E-04	1.63E-04	1.63E-04	1.63E-04	1.43E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	2.74E-03
91-20-3	91203	Napthalene	0.0197	1.73E-05	1.73E-05	1.73E-05	1.73E-05	1.51E-05	1.19E-05	1.19E-05	1.19E-05	1.19E-05	2.90E-04
N020	7440382	Arsenic Compounds	0.0016	1.40E-06	1.40E-06	1.40E-06	1.40E-06	1.23E-06	9.64E-07	9.64E-07	9.64E-07	9.64E-07	2.36E-05
N078	7440439	Cadmium Compounds	0.0015	1.31E-06	1.31E-06	1.31E-06	1.31E-06	1.15E-06	9.03E-07	9.03E-07	9.03E-07	9.03E-07	2.21E-05
N090	7440473	Chromium Compounds	0.0006	5.26E-07	5.26E-07	5.26E-07	5.26E-07	4.60E-07	3.61E-07	3.61E-07	3.61E-07	3.61E-07	8.84E-06
N100	7440508	Copper Compounds	0.0041	3.59E-06	3.59E-06	3.59E-06	3.59E-06	3.14E-06	2.47E-06	2.47E-06	2.47E-06	2.47E-06	6.04E-05
N420	7439921	Lead Compounds	0.0083	7.27E-06	7.27E-06	7.27E-06	7.27E-06	6.36E-06	5.00E-06	5.00E-06	5.00E-06	5.00E-06	1.22E-04
N450	7439965	Manganese Compounds	0.0031	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.38E-06	1.87E-06	1.87E-06	1.87E-06	1.87E-06	4.57E-05
N458	7439976	Mercury Compounds	0.002	1.75E-06	1.75E-06	1.75E-06	1.75E-06	1.53E-06	1.20E-06	1.20E-06	1.20E-06	1.20E-06	2.95E-05
N495	7440020	Nickel Compounds	0.0039	3.42E-06	3.42E-06	3.42E-06	3.42E-06	2.99E-06	2.35E-06	2.35E-06	2.35E-06	2.35E-06	5.74E-05
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0165	1.45E-05	1.45E-05	1.45E-05	1.45E-05	1.26E-05	9.94E-06	9.94E-06	9.94E-06	9.94E-06	2.43E-04
N725	7782492	Selenium Compounds	0.0022	1.93E-06	1.93E-06	1.93E-06	1.93E-06	1.69E-06	1.32E-06	1.32E-06	1.32E-06	1.32E-06	3.24E-05
N982	7440666	Zinc Compounds	0.0224	1.96E-05	1.96E-05	1.96E-05	1.96E-05	1.72E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	3.30E-04

**Internal Combustion
Exxon - SYU**

Annual Total			Permit Exempt Internal Combustion Units	45KVA Generator #260496	Permit Exempt Internal Combustion Units	70KVA Generator #260807	70KVA Generator #260808	Permit Exempt Internal Combustion Units	56kw Generator #120434	Permit Exempt Internal Combustion Units	180KVA Generator #270129	Generator	1600CFM Compressor #PR963	1600 CFM Air Compressor #PR965	1600 CFM Air Compressor #PR1343
Device ID	LFC22	Device ID	LFC19	LFC20	Device ID	LFC32	Device ID	LFC21	LFC7	LFC23	LFC30	LFC31			
Location	LFC	Location	LFC	LFC	Location	LFC	Location	LFC	LFC	LFC	LFC	LFC			
Fuel Type	Diesel	Fuel Type	Diesel	Diesel	Fuel Type	Diesel	Fuel Type	Diesel	Diesel	Diesel	Diesel	Diesel			
Fuel Units	Mgal	Fuel Units	Mgal	Mgal	Fuel Units	Mgal	Fuel Units	Mgal	Mgal	Mgal	Mgal	Mgal			
Emission Tier	T2-1	Emission Tier	T2-3	T2-3	Emission Tier	T3-1	Emission Tier	T3-5	T3-5	T3-5	T3-5	T3-5			
Hours of Operation	17.2	Hours of Operation	52.1	44.5	Hours of Operation	22.5	Hours of Operation	44.9	446	0.2	52.5	41			
Fuel Quantity	0.0612	Fuel Quantity	0.2909	0.2485	Fuel Quantity	0.0911	Fuel Quantity	0.7743	7.6911	0.0059	1.5520	1.2120			
Fuel Cons. Rate (Mgal/hr)	0.003558	Fuel Cons. Rate (Mgal/hr)	0.005584	0.005584	Fuel Cons. Rate (Mgal/hr)	0.004051	Fuel Cons. Rate (Mgal/hr)	0.017245	0.017245	0.029562	0.029562	0.029562			
HP	65	HP	102	102	HP	74	HP	315	315	540	540	540			
Estimated Load Factor	0.22	Estimated Load Factor	0.22	0.22	Estimated Load Factor	0.22	Estimated Load Factor	0.22	0.22	0.50	0.50	0.50			
CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	lb/year	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	lb/year	lb/year	lb/year	lb/year
9901	9901	Diesel Particulate Matter	0.3000	1.63E-01	0.2200	5.67E-01	4.84E-01	0.3000	2.42E-01	0.1500	1.03E+00	1.02E+01	1.79E-02	4.69E+00	3.66E+00
100-41-4	100414	Ethylbenzene	0.0109	1.47E-04	0.0109	6.98E-04	5.96E-04	0.0109	0.00E+00	0.0109	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
106-99-0	106990	1,3-Butadiene	0.2174	2.93E-03	0.2174	1.39E-02	1.19E-02	0.2174	0.00E+00	0.2174	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
107-02-8	107028	Acrolein	0.0339	4.56E-04	0.0339	2.17E-03	1.85E-03	0.0339	0.00E+00	0.0339	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	108883	Toluene	0.1054	1.42E-03	0.1054	6.75E-03	5.76E-03	0.1054	0.00E+00	0.1054	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-90-7	108907	Chlorobenzene	0.0002	2.69E-06	0.0002	1.28E-05	1.09E-05	0.0002	0.00E+00	0.0002	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-54-3	110543	Hexane (n)	0.0269	3.62E-04	0.0269	1.72E-03	1.47E-03	0.0269	0.00E+00	0.0269	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
115-07-1	115071	Propylene	0.4670	6.29E-03	0.4670	2.99E-02	2.55E-02	0.4670	0.00E+00	0.4670	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	5.71E-04	0.0424	2.71E-03	2.32E-03	0.0424	0.00E+00	0.0424	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18540-29-9	18540299	Hexavalent Chromium	0.0001	1.35E-06	0.0001	6.40E-06	5.47E-06	0.0001	0.00E+00	0.0001	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50-00-0	50000	Formaldehyde	1.7261	2.32E-02	1.7261	1.10E-01	9.44E-02	1.7261	0.00E+00	1.7261	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71-43-2	71432	Benzene	0.1863	2.51E-03	0.1863	1.19E-02	1.02E-02	0.1863	0.00E+00	0.1863	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75-07-0	75070	Acetaldehyde	0.7833	1.05E-02	0.7833	5.01E-02	4.28E-02	0.7833	0.00E+00	0.7833	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7647-01-0	7647010	Hydrogen Chloride	0.1863	2.51E-03	0.1863	1.19E-02	1.02E-02	0.1863	0.00E+00	0.1863	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91-20-3	91203	Naphthalene	0.0197	2.65E-04	0.0197	1.26E-03	1.08E-03	0.0197	0.00E+00	0.0197	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N020	7440382	Arsenic Compounds	0.0016	2.15E-05	0.0016	1.02E-04	8.75E-05	0.0016	0.00E+00	0.0016	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N078	7440439	Cadmium Compounds	0.0015	2.02E-05	0.0015	9.60E-05	8.20E-05	0.0015	0.00E+00	0.0015	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N090	7440473	Chromium Compounds	0.0006	8.08E-06	0.0006	3.84E-05	3.28E-05	0.0006	0.00E+00	0.0006	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N100	7440508	Copper Compounds	0.0041	5.52E-05	0.0041	2.62E-04	2.24E-04	0.0041	0.00E+00	0.0041	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N420	7439921	Lead Compounds	0.0083	1.12E-04	0.0083	5.31E-04	4.54E-04	0.0083	0.00E+00	0.0083	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N450	7439965	Manganese Compounds	0.0031	4.17E-05	0.0031	1.98E-04	1.69E-04	0.0031	0.00E+00	0.0031	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N458	7439976	Mercury Compounds	0.0020	2.69E-05	0.0020	1.28E-04	1.09E-04	0.0020	0.00E+00	0.0020	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N495	7440020	Nickel Compounds	0.0039	5.25E-05	0.0039	2.50E-04	2.13E-04	0.0039	0.00E+00	0.0039	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0362	4.87E-04	0.0362	2.32E-03	1.98E-03	0.0362	0.00E+00	0.0362	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N725	7782492	Selenium Compounds	0.0022	2.96E-05	0.0022	1.41E-04	1.20E-04	0.0022	0.00E+00	0.0022	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N982	7440666	Zinc Compounds	0.0224	3.02E-04	0.0224	1.43E-03	1.22E-03	0.0224	0.00E+00	0.0224	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

**Internal Combustion
Exxon - SYU**

Max Hourly

Permit Exempt Internal Combustion Units	45KVA Generator #260496	Permit Exempt Internal Combustion Units	70KVA Generator #260807	70KVA Generator #260808	Permit Exempt Internal Combustion Units	56kw Generator #120434	Permit Exempt Internal Combustion Units	180KVA Generator #270129	Generator	1600CFM Compressor #PR963	1600 CFM Air Compressor #PR965	1600 CFM Air Compressor #PR1343
Device ID	LFC22	Device ID	LFC19	LFC20	Device ID	LFC32	Device ID	LFC21	LFC7	LFC23	LFC30	LFC31
Location	LFC	Location	LFC	LFC	Location	LFC	Location	LFC	LFC	LFC	LFC	LFC
Fuel Type	Diesel	Fuel Type	Diesel	Diesel	Fuel Type	Diesel	Fuel Type	Diesel	Diesel	Diesel	Diesel	Diesel
Fuel Units	Mgal	Fuel Units	Mgal	Mgal	Fuel Units	Mgal	Fuel Units	Mgal	Mgal	Mgal	Mgal	Mgal
Emission Tier	T2-1	Emission Tier	T2-3	T2-3	Emission Tier	T3-1	Emission Tier	T3-5	T3-5	T3-5	T3-5	T3-5
Fuel Quantity	0.0036	Fuel Quantity	0.0056	0.0056	Fuel Quantity	0.0041	Fuel Quantity	0.0172	0.0172	0.0296	0.0296	0.0296
Fuel Cons. Rate (Mgal/hr)	0.003558	Fuel Cons. Rate (Mgal/hr)	0.005584	0.005584	Fuel Cons. Rate (Mgal/hr)	0.004051	Fuel Cons. Rate (Mgal/hr)	0.017245	0.017245	0.029562	0.029562	0.029562
HP	65	HP	102	102	HP	74	HP	315	315	540	540	540

CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr	lb/hr	lb/hr
100-41-4	100414	Ethylbenzene	0.0109	3.88E-05	0.0109	6.09E-05	6.09E-05	0.0109	0.00E+00	0.0109	0.00E+00	0.00E+00	0.00E+00	0.00E+00
106-99-0	106990	1,3-Butadiene	0.2174	7.74E-04	0.2174	1.21E-03	1.21E-03	0.2174	0.00E+00	0.2174	0.00E+00	0.00E+00	0.00E+00	0.00E+00
107-02-8	107028	Acrolein	0.0339	1.21E-04	0.0339	1.89E-04	1.89E-04	0.0339	0.00E+00	0.0339	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	108883	Toluene	0.1054	3.75E-04	0.1054	5.89E-04	5.89E-04	0.1054	0.00E+00	0.1054	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-90-7	108907	Chlorobenzene	0.0002	7.12E-07	0.0002	1.12E-06	1.12E-06	0.0002	0.00E+00	0.0002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-54-3	110543	Hexane (-n)	0.0269	9.57E-05	0.0269	1.50E-04	1.50E-04	0.0269	0.00E+00	0.0269	0.00E+00	0.00E+00	0.00E+00	0.00E+00
115-07-1	115071	Propylene	0.467	1.66E-03	0.467	2.61E-03	2.61E-03	0.467	0.00E+00	0.467	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	1.51E-04	0.0424	2.37E-04	2.37E-04	0.0424	0.00E+00	0.0424	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18540-29-9	18540299	Hexavalent Chromium	0.0001	3.56E-07	0.0001	5.58E-07	5.58E-07	0.0001	0.00E+00	0.0001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50-00-0	50000	Formaldehyde	1.7261	6.14E-03	1.7261	9.64E-03	9.64E-03	1.7261	0.00E+00	1.7261	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71-43-2	71432	Benzene	0.1863	6.63E-04	0.1863	1.04E-03	1.04E-03	0.1863	0.00E+00	0.1863	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75-07-0	75070	Acetaldehyde	0.7833	2.79E-03	0.7833	4.37E-03	4.37E-03	0.7833	0.00E+00	0.7833	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7647-01-0	7647010	Hydrogen Chloride	0.1863	6.63E-04	0.1863	1.04E-03	1.04E-03	0.1863	0.00E+00	0.1863	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91-20-3	91203	Naphthalene	0.0197	7.01E-05	0.0197	1.10E-04	1.10E-04	0.0197	0.00E+00	0.0197	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N020	7440382	Arsenic Compounds	0.0016	5.69E-06	0.0016	8.93E-06	8.93E-06	0.0016	0.00E+00	0.0016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N078	7440439	Cadmium Compounds	0.0015	5.34E-06	0.0015	8.38E-06	8.38E-06	0.0015	0.00E+00	0.0015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N090	7440473	Chromium Compounds	0.0006	2.14E-06	0.0006	3.35E-06	3.35E-06	0.0006	0.00E+00	0.0006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N100	7440508	Copper Compounds	0.0041	1.46E-05	0.0041	2.29E-05	2.29E-05	0.0041	0.00E+00	0.0041	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N420	7439921	Lead Compounds	0.0083	2.95E-05	0.0083	4.63E-05	4.63E-05	0.0083	0.00E+00	0.0083	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N450	7439965	Manganese Compounds	0.0031	1.10E-05	0.0031	1.73E-05	1.73E-05	0.0031	0.00E+00	0.0031	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N458	7439976	Mercury Compounds	0.002	7.12E-06	0.002	1.12E-05	1.12E-05	0.002	0.00E+00	0.002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N495	7440020	Nickel Compounds	0.0039	1.39E-05	0.0039	2.18E-05	2.18E-05	0.0039	0.00E+00	0.0039	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0165	5.87E-05	0.0165	9.21E-05	9.21E-05	0.0165	0.00E+00	0.0165	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N725	7782492	Selenium Compounds	0.0022	7.83E-06	0.0022	1.23E-05	1.23E-05	0.0022	0.00E+00	0.0022	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N982	7440666	Zinc Compounds	0.0224	7.97E-05	0.0224	1.25E-04	1.25E-04	0.0224	0.00E+00	0.0224	0.00E+00	0.00E+00	0.00E+00	0.00E+00

**Internal Combustion
Exxon - SYU**

Annual Total

Permit Exempt Internal Combustion Units	Generator #NR07831	Generator (PR908)	Generator (PR1034)	400 KW Generator
Device ID	LFC49	LFC15	LFC6	LFC4
Location	LFC	LFC	LFC	LFC
Fuel Type	Diesel	Diesel	Diesel	Diesel
Fuel Units	Mgal	Mgal	Mgal	Mgal
Emission Tier	T3-6	T3-6	T3-6	T3-6
Hours of Operation	607	3095	208	29
Fuel Quantity	21.1342	104.8798	7.3104	1.0192
Fuel Cons. Rate (Mgal/hr)	0.034818	0.033887	0.035146	0.035146
HP	636	619	642	642
Estimated Load Factor	0.22	0.14	0.22	0.22

CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion > 600 bhp (lb/Mgal)	lb/year	lb/year	lb/year	lb/year
9901	9901	Diesel Particulate Matter	0.1500	2.81E+01	8.87E+01	9.71E+00	1.35E+00
100-41-4	100414	Ethylbenzene	0.0109	0.00E+00	0.00E+00	0.00E+00	0.00E+00
106-99-0	106990	1,3-Butadiene	0.2174	0.00E+00	0.00E+00	0.00E+00	0.00E+00
107-02-8	107028	Acrolein	0.0339	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	108883	Toluene	0.1054	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-90-7	108907	Chlorobenzene	0.0002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-54-3	110543	Hexane (n)	0.0269	0.00E+00	0.00E+00	0.00E+00	0.00E+00
115-07-1	115071	Propylene	0.4670	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18540-29-9	18540299	Hexavalent Chromium	0.0001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50-00-0	50000	Formaldehyde	1.7261	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71-43-2	71432	Benzene	0.1863	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75-07-0	75070	Acetaldehyde	0.7833	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7647-01-0	7647010	Hydrogen Chloride	0.1863	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91-20-3	91203	Naphthalene	0.0197	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N020	7440382	Arsenic Compounds	0.0016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N078	7440439	Cadmium Compounds	0.0015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N090	7440473	Chromium Compounds	0.0006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N100	7440508	Copper Compounds	0.0041	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N420	7439921	Lead Compounds	0.0083	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N450	7439965	Manganese Compounds	0.0031	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N458	7439976	Mercury Compounds	0.0020	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N495	7440020	Nickel Compounds	0.0039	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0362	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N725	7782492	Selenium Compounds	0.0022	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N982	7440666	Zinc Compounds	0.0224	0.00E+00	0.00E+00	0.00E+00	0.00E+00

**Internal Combustion
Exxon - SYU**

Max Hourly

Permit Exempt Internal Combustion Units	Generator #NR07831	Generator (PR908)	Generator (PR1034)	400 KW Generator
Device ID	LFC49	LFC15	LFC6	LFC4
Location	LFC	LFC	LFC	LFC
Fuel Type	Diesel	Diesel	Diesel	Diesel
Fuel Units	Mgal	Mgal	Mgal	Mgal
Emission Tier	T3-6	T3-6	T3-6	T3-6
Fuel Quantity	0.0348	0.0339	0.0351	0.0351
Fuel Cons. Rate (Mgal/hr)	0.034818	0.033887	0.035146	0.035146
HP	636	619	642	642

CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr	lb/hr	lb/hr
100-41-4	100414	Ethylbenzene	0.0109	0.00E+00	0.00E+00	0.00E+00	0.00E+00
106-99-0	106990	1,3-Butadiene	0.2174	0.00E+00	0.00E+00	0.00E+00	0.00E+00
107-02-8	107028	Acrolein	0.0339	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	108883	Toluene	0.1054	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-90-7	108907	Chlorobenzene	0.0002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-54-3	110543	Hexane (-n)	0.0269	0.00E+00	0.00E+00	0.00E+00	0.00E+00
115-07-1	115071	Propylene	0.467	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18540-29-9	18540299	Hexavalent Chromium	0.0001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50-00-0	50000	Formaldehyde	1.7261	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71-43-2	71432	Benzene	0.1863	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75-07-0	75070	Acetaldehyde	0.7833	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7647-01-0	7647010	Hydrogen Chloride	0.1863	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91-20-3	91203	Naphthalene	0.0197	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N020	7440382	Arsenic Compounds	0.0016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N078	7440439	Cadmium Compounds	0.0015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N090	7440473	Chromium Compounds	0.0006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N100	7440508	Copper Compounds	0.0041	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N420	7439921	Lead Compounds	0.0083	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N450	7439965	Manganese Compounds	0.0031	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N458	7439976	Mercury Compounds	0.002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N495	7440020	Nickel Compounds	0.0039	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0165	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N725	7782492	Selenium Compounds	0.0022	0.00E+00	0.00E+00	0.00E+00	0.00E+00
N982	7440666	Zinc Compounds	0.0224	0.00E+00	0.00E+00	0.00E+00	0.00E+00

**Internal Combustion
Exxon - SYU**

Annual Total			Permit Exempt Internal Combustion Units	185 CFM Compressor #120938	Light Tower #280196	Light Tower #121221	Light Tower #110556	Light Tower #110168	Light Tower #120047	Light Tower #120036	185 CFM Compressor #110078	Light Tower #121219	185 FM Compressor #130599	Unpermitted -- Portable at OTP
			Device ID	LFC9	LFC24	LFC25	LFC26	LFC27	LFC28	LFC29	LFC35	LFC39	LFC46	300110
			Location	LFC	LFC	LFC	LFC	LFC	LFC	LFC	LFC	LFC	LFC	LFC
			Fuel Type	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
			Fuel Units	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal
			Emission Tier	T0	T0	T0	T0	T0	T0	T0	T0	T0	T0	
			Hours of Operation	16.6	18.4	16.8	29.5	22.8	16.7	10.6	6.7	720	4	
			Fuel Quantity	0.0445	0.0131	0.0101	0.0178	0.0137	0.0101	0.0064	0.0180	0.5124	0.0107	
			Fuel Cons. Rate (Mgal/hr)	0.002682	0.000712	0.000602	0.000602	0.000602	0.000602	0.000602	0.002682	0.000712	0.002682	
			HP	49	13	11	11	11	11	11	49	13	49	
			Estimated Load Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	Total Emissions (lb/year):
9901	9901	Diesel Particulate Matter	0.6000	7.53E-01	2.21E-01	1.71E-01	3.00E-01	2.32E-01	1.70E-01	1.08E-01	3.04E-01	8.67E+00	1.81E-01	1.60E+02
100-41-4	100414	Ethylbenzene	0.0109	3.40E-04	9.99E-05	7.72E-05	1.36E-04	1.05E-04	7.67E-05	4.87E-05	1.37E-04	3.91E-03	8.19E-05	6.45E-03
106-99-0	106990	1,3-Butadiene	0.2174	6.78E-03	1.99E-03	1.54E-03	2.70E-03	2.09E-03	1.53E-03	9.71E-04	2.74E-03	7.80E-02	1.63E-03	1.29E-01
107-02-8	107028	Acrolein	0.0339	1.06E-03	3.11E-04	2.40E-04	4.22E-04	3.26E-04	2.39E-04	1.51E-04	4.26E-04	1.22E-02	2.55E-04	2.01E-02
108-88-3	108883	Toluene	0.1054	3.29E-03	9.66E-04	7.46E-04	1.31E-03	1.01E-03	7.42E-04	4.71E-04	1.33E-03	3.78E-02	7.92E-04	6.24E-02
108-90-7	108907	Chlorobenzene	0.0002	6.23E-06	1.83E-06	1.42E-06	2.49E-06	1.92E-06	1.41E-06	8.94E-07	2.52E-06	7.17E-05	1.50E-06	1.18E-04
110-54-3	110543	Hexane (-n)	0.0269	8.38E-04	2.47E-04	1.90E-04	3.35E-04	2.59E-04	1.89E-04	1.20E-04	3.38E-04	9.65E-03	2.02E-04	1.59E-02
115-07-1	115071	Propylene	0.4670	1.46E-02	4.28E-03	3.31E-03	5.81E-03	4.49E-03	3.29E-03	2.09E-03	5.88E-03	1.68E-01	3.51E-03	2.76E-01
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	1.32E-03	3.89E-04	3.00E-04	5.27E-04	4.08E-04	2.98E-04	1.89E-04	5.33E-04	1.52E-02	3.18E-04	2.51E-02
18540-29-9	18540299	Hexavalent Chromium	0.0001	3.12E-06	9.17E-07	7.08E-07	1.24E-06	9.61E-07	7.04E-07	4.47E-07	1.26E-06	3.59E-05	7.51E-07	5.92E-05
50-00-0	50000	Formaldehyde	1.7261	5.38E-02	1.58E-02	1.22E-02	2.15E-02	1.66E-02	1.22E-02	7.71E-03	2.17E-02	6.19E-01	1.30E-02	1.02E+00
71-43-2	71432	Benzene	0.1863	5.81E-03	1.71E-03	1.32E-03	2.32E-03	1.79E-03	1.31E-03	8.32E-04	2.34E-03	6.68E-02	1.40E-03	1.10E-01
75-07-0	75070	Acetaldehyde	0.7833	2.44E-02	7.18E-03	5.55E-03	9.74E-03	7.53E-03	5.51E-03	3.50E-03	9.85E-03	2.81E-01	5.88E-03	4.64E-01
7647-01-0	7647010	Hydrogen Chloride	0.1863	5.81E-03	1.71E-03	1.32E-03	2.32E-03	1.79E-03	1.31E-03	8.32E-04	2.34E-03	6.68E-02	1.40E-03	1.10E-01
91-20-3	91203	Naphthalene	0.0197	6.14E-04	1.81E-04	1.40E-04	2.45E-04	1.89E-04	1.39E-04	8.80E-05	2.48E-04	7.07E-03	1.48E-04	1.17E-02
N020	7440382	Arsenic Compounds	0.0016	4.99E-05	1.47E-05	1.13E-05	1.99E-05	1.54E-05	1.13E-05	7.15E-06	2.01E-05	5.74E-04	1.20E-05	9.47E-04
N078	7440439	Cadmium Compounds	0.0015	4.68E-05	1.37E-05	1.06E-05	1.87E-05	1.44E-05	1.06E-05	6.70E-06	1.89E-05	5.38E-04	1.13E-05	8.88E-04
N090	7440473	Chromium Compounds	0.0006	1.87E-05	5.50E-06	4.25E-06	7.46E-06	5.77E-06	4.22E-06	2.68E-06	7.55E-06	2.15E-04	4.51E-06	3.55E-04
N100	7440508	Copper Compounds	0.0041	1.28E-04	3.76E-05	2.90E-05	5.10E-05	3.94E-05	2.89E-05	1.83E-05	5.16E-05	1.47E-03	3.08E-05	2.43E-03
N420	7439921	Lead Compounds	0.0083	2.59E-04	7.61E-05	5.88E-05	1.03E-04	7.98E-05	5.84E-05	3.71E-05	1.04E-04	2.98E-03	6.23E-05	4.91E-03
N450	7439965	Manganese Compounds	0.0031	9.66E-05	2.84E-05	2.20E-05	3.85E-05	2.98E-05	2.18E-05	1.39E-05	3.90E-05	1.11E-03	2.33E-05	1.83E-03
N458	7439976	Mercury Compounds	0.0020	6.23E-05	1.83E-05	1.42E-05	2.49E-05	1.92E-05	1.41E-05	8.94E-06	2.52E-05	7.17E-04	1.50E-05	1.18E-03
N495	7440020	Nickel Compounds	0.0039	1.22E-04	3.57E-05	2.76E-05	4.85E-05	3.75E-05	2.75E-05	1.74E-05	4.91E-05	1.40E-03	2.93E-05	2.31E-03
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0362	1.13E-03	3.32E-04	2.56E-04	4.50E-04	3.48E-04	2.55E-04	1.62E-04	4.55E-04	1.30E-02	2.72E-04	2.14E-02
N725	7782492	Selenium Compounds	0.0022	6.86E-05	2.02E-05	1.56E-05	2.74E-05	2.11E-05	1.55E-05	9.83E-06	2.77E-05	7.89E-04	1.65E-05	1.30E-03
N982	7440666	Zinc Compounds	0.0224	6.98E-04	2.05E-04	1.59E-04	2.79E-04	2.15E-04	1.58E-04	1.00E-04	2.82E-04	8.03E-03	1.68E-04	1.33E-02

**Internal Combustion
Exxon - SYU**

Max Hourly

			Permit Exempt Internal Combustion Units	185 CFM Compressor #120938	Light Tower #280196	Light Tower #121221	Light Tower #110556	Light Tower #110168	Light Tower #120047	Light Tower #120036	185 CFM Compressor #110078	Light Tower #121219	185 FM Compressor #130599	Unpermitted -- Portable at OTP
			Device ID	LFC9	LFC24	LFC25	LFC26	LFC27	LFC28	LFC29	LFC35	LFC39	LFC46	300110
			Location	LFC	LFC	LFC	LFC	LFC	LFC	LFC	LFC	LFC	LFC	LFC
			Fuel Type	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
			Fuel Units	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal	Mgal
			Emission Tier	T0	T0	T0	T0	T0	T0	T0	T0	T0	T0	
			Fuel Quantity	0.0027	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0027	0.0007	0.0027	
			Fuel Cons. Rate (Mgal/hr)	0.002682	0.000712	0.000602	0.000602	0.000602	0.000602	0.000602	0.002682	0.000712	0.002682	
			HP	49	13	11	11	11	11	11	49	13	49	Total Emissions (lb/hr):
CAS #	AB2588 No.	Compound Name	Diesel Internal Combustion < 600 bhp (lb/Mgal)	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	Total Emissions (lb/hr):
100-41-4	100414	Ethylbenzene	0.0109	2.92E-05	7.76E-06	6.56E-06	6.56E-06	6.56E-06	6.56E-06	6.56E-06	2.92E-05	7.76E-06	2.92E-05	2.97E-04
106-99-0	106990	1,3-Butadiene	0.2174	5.83E-04	1.55E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	5.83E-04	1.55E-04	5.83E-04	5.92E-03
107-02-8	107028	Acrolein	0.0339	9.09E-05	2.41E-05	2.04E-05	2.04E-05	2.04E-05	2.04E-05	2.04E-05	9.09E-05	2.41E-05	9.09E-05	9.22E-04
108-88-3	108883	Toluene	0.1054	2.83E-04	7.50E-05	6.35E-05	6.35E-05	6.35E-05	6.35E-05	6.35E-05	2.83E-04	7.50E-05	2.83E-04	2.87E-03
108-90-7	108907	Chlorobenzene	0.0002	5.36E-07	1.42E-07	1.20E-07	1.20E-07	1.20E-07	1.20E-07	1.20E-07	5.36E-07	1.42E-07	5.36E-07	5.44E-06
110-54-3	110543	Hexane (-n)	0.0269	7.22E-05	1.91E-05	1.62E-05	1.62E-05	1.62E-05	1.62E-05	1.62E-05	7.22E-05	1.91E-05	7.22E-05	7.32E-04
115-07-1	115071	Propylene	0.467	1.25E-03	3.32E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	1.25E-03	3.32E-04	1.25E-03	1.27E-02
1330-20-7	1330207	Xylenes (mixed isomers)	0.0424	1.14E-04	3.02E-05	2.55E-05	2.55E-05	2.55E-05	2.55E-05	2.55E-05	1.14E-04	3.02E-05	1.14E-04	1.15E-03
18540-29-9	18540299	Hexavalent Chromium	0.0001	2.68E-07	7.12E-08	6.02E-08	6.02E-08	6.02E-08	6.02E-08	6.02E-08	2.68E-07	7.12E-08	2.68E-07	2.72E-06
50-00-0	50000	Formaldehyde	1.7261	4.63E-03	1.23E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	4.63E-03	1.23E-03	4.63E-03	4.70E-02
71-43-2	71432	Benzene	0.1863	5.00E-04	1.33E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	5.00E-04	1.33E-04	5.00E-04	5.07E-03
75-07-0	75070	Acetaldehyde	0.7833	2.10E-03	5.57E-04	4.72E-04	4.72E-04	4.72E-04	4.72E-04	4.72E-04	2.10E-03	5.57E-04	2.10E-03	2.13E-02
7647-01-0	7647010	Hydrogen Chloride	0.1863	5.00E-04	1.33E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	5.00E-04	1.33E-04	5.00E-04	5.07E-03
91-20-3	91203	Napthalene	0.0197	5.28E-05	1.40E-05	1.19E-05	1.19E-05	1.19E-05	1.19E-05	1.19E-05	5.28E-05	1.40E-05	5.28E-05	5.36E-04
N020	7440382	Arsenic Compounds	0.0016	4.29E-06	1.14E-06	9.64E-07	9.64E-07	9.64E-07	9.64E-07	9.64E-07	4.29E-06	1.14E-06	4.29E-06	4.35E-05
N078	7440439	Cadmium Compounds	0.0015	4.02E-06	1.07E-06	9.03E-07	9.03E-07	9.03E-07	9.03E-07	9.03E-07	4.02E-06	1.07E-06	4.02E-06	4.08E-05
N090	7440473	Chromium Compounds	0.0006	1.61E-06	4.27E-07	3.61E-07	3.61E-07	3.61E-07	3.61E-07	3.61E-07	1.61E-06	4.27E-07	1.61E-06	1.63E-05
N100	7440508	Copper Compounds	0.0041	1.10E-05	2.92E-06	2.47E-06	2.47E-06	2.47E-06	2.47E-06	2.47E-06	1.10E-05	2.92E-06	1.10E-05	1.12E-04
N420	7439921	Lead Compounds	0.0083	2.23E-05	5.91E-06	5.00E-06	5.00E-06	5.00E-06	5.00E-06	5.00E-06	2.23E-05	5.91E-06	2.23E-05	2.26E-04
N450	7439965	Manganese Compounds	0.0031	8.32E-06	2.21E-06	1.87E-06	1.87E-06	1.87E-06	1.87E-06	1.87E-06	8.32E-06	2.21E-06	8.32E-06	8.43E-05
N458	7439976	Mercury Compounds	0.002	5.36E-06	1.42E-06	1.20E-06	1.20E-06	1.20E-06	1.20E-06	1.20E-06	5.36E-06	1.42E-06	5.36E-06	5.44E-05
N495	7440020	Nickel Compounds	0.0039	1.05E-05	2.78E-06	2.35E-06	2.35E-06	2.35E-06	2.35E-06	2.35E-06	1.05E-05	2.78E-06	1.05E-05	1.06E-04
1151	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.0165	4.43E-05	1.17E-05	9.94E-06	9.94E-06	9.94E-06	9.94E-06	9.94E-06	4.43E-05	1.17E-05	4.43E-05	4.49E-04
N725	7782492	Selenium Compounds	0.0022	5.90E-06	1.57E-06	1.32E-06	1.32E-06	1.32E-06	1.32E-06	1.32E-06	5.90E-06	1.57E-06	5.90E-06	5.99E-05
N982	7440666	Zinc Compounds	0.0224	6.01E-05	1.59E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	6.01E-05	1.59E-05	6.01E-05	6.09E-04

**ThermalOx
Exxon - SYU**

Annual Total		Thermal Oxidizer -- Planned Continuous Flaring	Thermal Oxidizer -- Planned Other (SU, Maint., Tailgas)	Thermal Oxidizer -- Purge & Pilot	Thermal Oxidizer -- Unplanned Other (Misc., SRU Fail)	LFC Thermal Oxidizer	Thermal Oxidizer -- Planned -- Contin. (Acid Gas, Low Press.)	Thermal Oxidizer -- Planned -- Other	Thermal Oxidizer -- Purge and Pilot	Thermal Oxidizer -- Unplanned -- Other	LFC Waste Gas Incinerator	Waste Gas Incinerator -- Normal Ops	Waste Gas Incinerator -- Planned SU/SD/Maintenance		
Device ID	Location	Device ID	Location	Device ID	Location	Device ID	Location	Device ID	Location	Device ID	Location	Device ID	Location		
Stack Flow Rate (dscfm)	Average NH3 Concentration (ppm)	Fuel Type	Fuel Units	Fuel Quantity	Stack Flow Rate (dscfm)	Average NH3 Concentration (ppm)	Fuel Type	Fuel Units	Fuel Quantity	Stack Flow Rate (dscfm)	Average NH3 Concentration (ppm)	Fuel Gas (MMscf)	Tail Gas (MMscf)	Total Fuel (MMBtu)	
7664-41-7	7664417	Ammonia													
107-02-8	107028	Acrolein	8.20E-06	1.87E-05	9.76E-06	1.49E-04	3.44E-06	8.20E-06	1.19E-04	4.02E-06	2.10E-04	7.11E-05	8.20E-06	4.10E-03	3.28E-07
108-88-3	108883	Toluene	4.76E-05	1.08E-04	5.66E-05	8.64E-04	2.00E-05	4.76E-05	6.91E-04	2.33E-05	1.22E-03	4.12E-04	4.76E-05	2.38E-02	1.90E-06
110-54-3	110543	Hexane (-n)	2.38E-05	5.42E-05	2.83E-05	4.32E-04	9.99E-06	2.38E-05	3.46E-04	1.17E-05	6.10E-04	2.06E-04	2.38E-05	1.19E-02	9.51E-07
115-07-1	115071	Propylene	2.00E-03	4.56E-03	2.38E-03	3.63E-02	8.40E-04	2.00E-03	2.91E-02	9.80E-04	5.13E-02	1.73E-02	2.00E-03	1.00E+00	8.00E-05
1330-20-7	1330207	Xylenes (mixed isomers)	2.38E-05	5.42E-05	2.83E-05	4.32E-04	9.99E-06	2.38E-05	3.46E-04	1.17E-05	6.10E-04	2.06E-04	2.38E-05	1.19E-02	9.51E-07
50-00-0	50000	Formaldehyde	9.58E-04	2.19E-03	1.14E-03	1.74E-02	4.03E-04	9.58E-04	1.39E-02	4.70E-04	2.46E-02	8.31E-03	9.58E-04	4.79E-01	3.83E-05
71-43-2	71432	Benzene	1.30E-04	2.97E-04	1.55E-04	2.37E-03	5.48E-05	1.30E-04	1.90E-03	6.39E-05	3.35E-03	1.13E-03	1.30E-04	6.51E-02	5.21E-06
75-07-0	75070	Acetaldehyde	3.53E-05	8.04E-05	4.20E-05	6.40E-04	1.48E-05	3.53E-05	5.13E-04	1.73E-05	9.05E-04	3.06E-04	3.53E-05	1.76E-02	1.41E-06
91-20-3	91203	Naphthalene	9.02E-06	2.06E-05	1.07E-05	1.64E-04	3.79E-06	9.02E-06	1.31E-04	4.42E-06	2.31E-04	7.82E-05	9.02E-06	4.51E-03	3.61E-07
		Ethylbenzene	1.18E-03	2.70E-03	1.41E-03	2.15E-02	4.97E-04	1.18E-03	1.72E-02	5.80E-04	3.04E-02	1.03E-02	1.18E-03	5.92E-01	4.74E-05
		PAHs	2.46E-06	5.61E-06	2.93E-06	4.47E-05	1.03E-06	2.46E-06	3.58E-05	1.21E-06	6.31E-05	2.13E-05	2.46E-06	1.23E-03	9.84E-08

Max Hourly		Thermal Oxidizer -- Planned Continuous Flaring	Thermal Oxidizer -- Planned Other (SU, Maint., Tailgas)	Thermal Oxidizer -- Purge & Pilot	Thermal Oxidizer -- Unplanned Other (Misc., SRU Fail)	LFC Thermal Oxidizer	Thermal Oxidizer -- Planned -- Contin. (Acid Gas, Low Press.)	Thermal Oxidizer -- Planned -- Other	Thermal Oxidizer -- Purge and Pilot	Thermal Oxidizer -- Unplanned -- Other	LFC Waste Gas Incinerator	Waste Gas Incinerator -- Normal Ops	Waste Gas Incinerator -- Planned SU/SD/Maintenance					
Device ID	Location	Device ID	Location	Device ID	Location	Device ID	Location	Device ID	Location	Device ID	Location	Device ID	Location					
Max Rating (MMBtu/hr)	Max Stack Flow Rate (dscfm)	Max NH3 Concentration (ppm)	Fuel Type	Fuel Units	Fuel Quantity (MMscf/hr)	HHV	Max Stack Flow Rate (dscfm)	Max NH3 Concentration (ppm)	Fuel Type	Fuel Units	Fuel Quantity (MMscf/hr)	HHV	Max Stack Flow Rate (dscfm)	Max NH3 Concentration (ppm)	Fuel Gas (MMscf)	Tail Gas (MMscf)	Total Fuel (MMBtu)	
7664-41-7	7664417	Ammonia																
107-02-8	107028	Acrolein	8.20E-06	7.44E-09	6.28E-08	1.81E-08	2.96E-08	8.20E-06	1.35E-08	1.51E-07	3.28E-08	1.29E-07	8.20E-06	1.03E-04	9.06E-05			
108-88-3	108883	Toluene	4.76E-05	4.32E-08	3.64E-07	1.05E-07	1.72E-07	4.76E-05	7.85E-08	8.77E-07	1.90E-07	7.47E-07	4.76E-05	5.99E-04	5.25E-04			
110-54-3	110543	Hexane (-n)	2.38E-05	2.16E-08	1.82E-07	5.23E-08	8.58E-08	2.38E-05	3.92E-08	4.38E-07	9.51E-08	3.73E-07	2.38E-05	3.00E-04	2.63E-04			
115-07-1	115071	Propylene	2.00E-03	1.82E-06	1.53E-05	4.40E-06	7.22E-06	2.00E-03	3.30E-06	3.69E-05	8.00E-06	3.14E-05	2.00E-03	2.52E-02	2.21E-02			
1330-20-7	1330207	Xylenes (mixed isomers)	2.38E-05	2.16E-08	1.82E-07	5.23E-08	8.58E-08	2.38E-05	3.92E-08	4.38E-07	9.51E-08	3.73E-07	2.38E-05	3.00E-04	2.63E-04			
50-00-0	50000	Formaldehyde	9.58E-04	8.70E-07	7.35E-06	2.11E-06	3.46E-06	9.58E-04	1.58E-06	1.77E-05	3.83E-06	1.51E-05	9.58E-04	1.21E-02	1.06E-02			
71-43-2	71432	Benzene	1.30E-04	1.18E-07	9.99E-07	2.87E-07	4.71E-07	1.30E-04	2.15E-07	2.40E-06	5.21E-07	2.05E-06	1.30E-04	1.64E-03	1.44E-03			
75-07-0	75070	Acetaldehyde	3.53E-05	3.20E-08	2.70E-07	7.76E-08	1.27E-07	3.53E-05	5.82E-08	6.50E-07	1.41E-07	5.54E-07	3.53E-05	4.44E-04	3.90E-04			
91-20-3	91203	Naphthalene	9.02E-06	8.19E-09	6.91E-08	1.99E-08	3.26E-08	9.02E-06	1.49E-08	1.66E-07	3.61E-08	1.42E-07	9.02E-06	1.14E-04	9.97E-05			
		Ethylbenzene	1.18E-03	1.07E-06	9.07E-06	2.61E-06	4.27E-06	1.18E-03	1.95E-06	2.18E-05	4.74E-06	1.86E-05	1.18E-03	1.49E-02	1.31E-02			
		PAHs	2.46E-06	2.23E-09	1.89E-08	5.42E-09	8.88E-09	2.46E-06	4.06E-09	4.54E-08	9.84E-09	3.86E-08	2.46E-06	3.10E-05	2.72E-05			

Notes:
 HHV Data per APCD permit Part 70/PTO 5651 and Part 70/PTO 8092.
 Emission Factors per Venoco Source test (2004) for thermal oxidizers as reported in Venoco's ATEIR.
 Hourly rating for each thermal oxidizer modes based actual events in 2013 lasting approximately 1 hour in duration.
 Applied max Ammonia slip reported for 2013. Range: 10 -17 ppm. Applied: 17 ppm
 Average stack flow rate for the WGI: 172.3 kscfh

**Turbine
Exxon - SYU**

Annual Total

LFC Cogeneration Power Plant	CPP -- HRSG Only	CPP -- Normal Ops. Modes	CPP -- Planned Bypass (SU/SD, etc)
Device ID	126022	126021	125010
Location	LFC	LFC	LFC
Fuel Type	Natural Gas	Natural Gas	Natural Gas
Fuel Units	MMscf	MMscf	MMscf
Fuel Quantity	65.3400	3544.84	0.67
Fuel HHV	1220	1220	1220

CAS #	AB2588 No.		Turbine (lbs/MMBtu)	lb/year	lb/year	lb/year	Total Emissions:
100-41-4	100414	Ethylbenzene	0.000032	2.55E+00	1.38E+02	2.61E-02	1.41E+02
106-99-0	106990	1,3-Butadiene	0.00000043	3.43E-02	1.86E+00	3.51E-04	1.89E+00
107-02-8	107028	Acrolein	0.0000064	5.10E-01	2.77E+01	5.23E-03	2.82E+01
108-88-3	108883	Toluene	0.00013	1.04E+01	5.62E+02	1.06E-01	5.73E+02
1330-20-7	1330207	Xylenes (mixed isomers)	0.000064	5.10E+00	2.77E+02	5.23E-02	2.82E+02
50-00-0	50000	Formaldehyde	0.00071	5.66E+01	3.07E+03	5.80E-01	3.13E+03
71-43-2	71432	Benzene	0.000012	9.56E-01	5.19E+01	9.81E-03	5.28E+01
75-07-0	75070	Acetaldehyde	0.00004	3.19E+00	1.73E+02	3.27E-02	1.76E+02
75-56-9	75569	Propylene Oxide	0.000029	2.31E+00	1.25E+02	2.37E-02	1.28E+02
91-20-3	91203	Naphthalene	0				
		PAHs	0.0000022	1.75E-01	9.51E+00	1.80E-03	9.69E+00

Notes:

Emission factors per EPA, AP-42, Table 3.1-3.

**Turbine
Exxon - SYU**

Max Hourly

LFC Cogeneration Power Plant	CPP -- HRSG Only	CPP -- Normal Ops. Modes	CPP -- Planned Bypass (SU/SD, etc)
Device ID	126022	126021	125010
Location	LFC	LFC	LFC
Max Rating (MMBtu/hr)	345	605.14	308.82
Fuel Type	Natural Gas	Natural Gas	Natural Gas
Fuel Units	MMscf	MMscf	MMscf
Fuel Quantity (MMscf/hr)	0.2829	0.4962	0.2532
Fuel HHV	1220	1220	1220

CAS #	AB2588 No.		Turbine (lbs/MMBtu)	lb/hr	lb/hr	lb/hr	Total Emissions:
100-41-4	100414	Ethylbenzene	0.000032	1.10E-02	1.94E-02	9.88E-03	4.03E-02
106-99-0	106990	1,3-Butadiene	0.00000043	1.48E-04	2.60E-04	1.33E-04	5.41E-04
107-02-8	107028	Acrolein	0.0000064	2.21E-03	3.87E-03	1.98E-03	8.06E-03
108-88-3	108883	Toluene	0.00013	4.49E-02	7.87E-02	4.01E-02	1.64E-01
1330-20-7	1330207	Xylenes (mixed isomers)	0.000064	2.21E-02	3.87E-02	1.98E-02	8.06E-02
50-00-0	50000	Formaldehyde	0.00071	2.45E-01	4.30E-01	2.19E-01	8.94E-01
71-43-2	71432	Benzene	0.000012	4.14E-03	7.26E-03	3.71E-03	1.51E-02
75-07-0	75070	Acetaldehyde	0.00004	1.38E-02	2.42E-02	1.24E-02	5.04E-02
75-56-9	75569	Propylene Oxide	0.000029	1.00E-02	1.75E-02	8.96E-03	3.65E-02
91-20-3	91203	Naphthalene	0				
		PAHs	0.0000022	7.59E-04	1.33E-03	6.79E-04	2.77E-03

Notes:

Applied F Factor from LFC Fuel for max stack flow rate determination.

**Stretford System
Exxon - SYU**

			Device	Evaporative Cooler	Aerator A (Oxidizer Tank No. 1)	Aerator B (Oxidizer Tank No. 2)
			Device ID	150100	250120	250130
			Speciation	POP-9	POP-9	POP-9
			Flowrate (gal/min)	330	330	330
			Operating Hours	8,760	8,760	8,760
			ROC (lb/hr)		0.012	0.008
CAS #	AB2588 No.	Compound Name	POP-9 (ppm)	lb/year	lb/year	lb/year
1150	1150	PAHs, total, with individ. components also reported [PAH, POM]				
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00			
75-15-0	75150	Carbon Disulfide	1.29E-01	3.72E-02		
463-58-1	463581	Carbonyl Sulfide	0.00E+00			
100-41-4	100414	Ethylbenzene	0.00E+00			
107-21-1	107211	Ethylene Glycol	0.00E+00			
111-46-6	111466	Diethylene Glycol	0.00E+00			
111-76-2	111762	Glycol Ether EB				
108-10-1	108101	Methyl Isobutyl Ketone				
108-88-3	108883	Toluene	0.00E+00			
108-90-7	108907	Chlorobenzene				
110-54-3	110543	Hexane (-n)				
110-82-7	110827	Cyclohexane	0.00E+00			
112-34-5	112345	Butyl Dioxitol				
1310-73-2	1310732	Sodium Hydroxide	1.01E+02	2.92E+01		
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00			
463-58-1	463581	Carbonyl Sulfide	0.00E+00			
50-00-0	50000	Formaldehyde				
67-56-1	67561	Methyl Alcohol	0.00E+00			
67-63-0	67630	Isopropyl Alcohol				
71-43-2	71432	Benzene	0.00E+00			
7664-41-7	7664417	Ammonia	0.00E+00			
7782-50-5	7782505	Chlorine				
78-93-3	78933	Methyl Ethyl Ketone				
91-20-3	91203	Naphthalene	0.00E+00			
95-50-1	95501	1,2 Dichlorobenzene				
95-63-6	95636	Trimethylbenzene (1,2,4)	0.00E+00			
98-82-8	98828	Isopropyl Benzene				

**Stretford System
Exxon - SYU**

			Device	Evaporative Cooler	Aerator A (Oxidizer Tank No. 1)	Aerator B (Oxidizer Tank No. 2)
			Device ID	150100	250120	250130
			Speciation	POP-9	POP-9	POP-9
			Flowrate (gal/min)	330	330	330
			Operating Hours	8,760	8,760	8,760
CAS #	AB2588 No.	Compound Name	POP-9 (ppm)	lb/hour	lb/hour	lb/hour
1150	1150	PAHs, total, with individ. components also reported [PAH, POM]				
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00			
75-15-0	75150	Carbon Disulfide	1.29E-01	4.24E-06		
463-58-1	463581	Carbonyl Sulfide	0.00E+00			
100-41-4	100414	Ethylbenzene	0.00E+00			
107-21-1	107211	Ethylene Glycol	0.00E+00			
111-46-6	111466	Diethylene Glycol	0.00E+00			
111-76-2	111762	Glycol Ether EB				
108-10-1	108101	Methyl Isobutyl Ketone				
108-88-3	108883	Toluene	0.00E+00			
108-90-7	108907	Chlorobenzene				
110-54-3	110543	Hexane (-n)				
110-82-7	110827	Cyclohexane	0.00E+00			
112-34-5	112345	Butyl Dioxitol				
1310-73-2	1310732	Sodium Hydroxide	1.01E+02	3.33E-03		
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00			
463-58-1	463581	Carbonyl Sulfide	0.00E+00			
50-00-0	50000	Formaldehyde				
67-56-1	67561	Methyl Alcohol	0.00E+00			
67-63-0	67630	Isopropyl Alcohol				
71-43-2	71432	Benzene	0.00E+00			
7664-41-7	7664417	Ammonia	0.00E+00			
7782-50-5	7782505	Chlorine				
78-93-3	78933	Methyl Ethyl Ketone				
91-20-3	91203	Naphthalene	0.00E+00			
95-50-1	95501	1,2 Dichlorobenzene				
95-63-6	95636	Trimethylbenzene (1,2,4)	0.00E+00			
98-82-8	98828	Isopropyl Benzene				

FHC - Gas Toxics
Exxon - SYU

Cogeneration
Power Plant

		CPP Gas Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	CPP Fugitive Components (Gas)
Device ID																360211
Speciation		LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2		
VOC (Lb/day)		-	-	-	-	0.0075	-	-	5.0878	-	-	0.7059	0.2381	-	0.3045	
CAS #	AB2588 No.	Compound Name	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide							3.26E-05			2.59E-04	2.58E-03		3.30E-03	6.18E-03
75-15-0	75150	Carbon Disulfide										5.79E-04			0.00E+00	5.79E-04
463-58-1	463581	Carbonyl Sulfide										4.54E-04			0.00E+00	4.54E-04
100-41-4	100414	Ethylbenzene					6.83E-06		1.73E-06			2.84E-04			0.00E+00	2.93E-04
107-21-1	107211	Ethylene Glycol													0.00E+00	
108-88-3	108883	Toluene					1.34E-05		5.47E-05			2.49E-03			0.00E+00	2.55E-03
110-54-3	110543	Hexane (-n)													0.00E+00	
110-82-7	110827	Cyclohexane					1.30E-05		6.50E-04			8.68E-03			0.00E+00	9.34E-03
111-46-6	111466	Diethylene Glycol										5.37E-05			0.00E+00	5.37E-05
1310-73-2	1310732	Sodium Hydroxide													0.00E+00	
1330-20-7	1330207	Xylenes (mixed isomers)					8.83E-06					2.21E-04			0.00E+00	2.30E-04
95-47-6	95476	o-Xylene					4.80E-06					8.49E-05			0.00E+00	8.97E-05
67-56-1	67561	Methyl Alcohol					7.48E-08								0.00E+00	7.48E-08
67-63-0	67630	Isopropyl Alcohol													0.00E+00	
71-43-2	71432	Benzene					6.52E-06		2.98E-04			5.22E-03			0.00E+00	5.52E-03
7664-41-7	7664417	Ammonia											1.07E-07		1.36E-07	2.43E-07
91-20-3	91203	Naphthalene					2.02E-06								0.00E+00	2.02E-06
95-63-6	95636	Trimethylbenzene (1,2,4)					3.76E-06								0.00E+00	3.76E-06

FHC - Gas Toxics
Exxon - SYU

Oil Treating Plant

		OTP Gas Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	OTP Fugitive Components (Gas)
Device ID																360111
Speciation		LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2		
VOC (Lb/day)		0.7972	-	-	-	9.2253	5.6262	0.0050	36.2650	-	-	30.4513	-	15.8100		
CAS #	AB2588 No.	Compound Name	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide	2.99E-01					1.85E-04	2.32E-04				3.30E-01	1.72E-01		8.02E-01
75-15-0	75150	Carbon Disulfide												0.00E+00		
463-58-1	463581	Carbonyl Sulfide												0.00E+00		
100-41-4	100414	Ethylbenzene	4.25E-05				8.42E-03	6.11E-06	2.49E-04	1.23E-05				0.00E+00		8.73E-03
107-21-1	107211	Ethylene Glycol												0.00E+00		
108-88-3	108883	Toluene	2.14E-04				1.65E-02	1.56E-05		3.90E-04				0.00E+00		1.71E-02
110-54-3	110543	Hexane (-n)												0.00E+00		
110-82-7	110827	Cyclohexane	6.54E-07				1.61E-02	6.96E-06		4.63E-03				0.00E+00		2.07E-02
111-46-6	111466	Diethylene Glycol	1.49E-06											0.00E+00		1.49E-06
1310-73-2	1310732	Sodium Hydroxide												0.00E+00		
1330-20-7	1330207	Xylenes (mixed isomers)	5.63E-05				1.09E-02	8.45E-06	2.49E-04					0.00E+00		1.12E-02
95-47-6	95476	o-Xylene	5.85E-05				5.91E-03	5.32E-06						0.00E+00		5.98E-03
67-56-1	67561	Methyl Alcohol					9.23E-05	2.63E-04	4.99E-04					0.00E+00		8.54E-04
67-63-0	67630	Isopropyl Alcohol												0.00E+00		
71-43-2	71432	Benzene	2.19E-04				8.04E-03	1.55E-05		2.13E-03				0.00E+00		1.04E-02
7664-41-7	7664417	Ammonia	2.03E-05									1.36E-05		7.07E-06		4.10E-05
91-20-3	91203	Naphthalene	4.77E-06				2.48E-03	2.82E-06	2.49E-04					0.00E+00		2.74E-03
95-63-6	95636	Trimethylbenzene (1,2,4)	1.71E-05				4.64E-03	4.73E-06	4.99E-05					0.00E+00		4.71E-03

FHC - Gas Toxics
Exxon - SYU

Stripping Gas
Treatment Plant

		SGTP Gas Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	SGTP Fugitive Components (Gas)
Device ID																360411
Speciation		LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2		
VOC (Lb/day)		1.0318	1.8845	0.0561	-	0.1305	-	-	18.2120	0.5700	41.9981	21.0835	-	6.0523		
CAS #	AB2588 No.	Compound Name	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide	3.87E-01	1.53E-04					1.17E-04	4.53E-04	1.54E-02	2.29E-01		6.57E-02	6.98E-01	
75-15-0	75150	Carbon Disulfide									3.44E-02			0.00E+00	3.44E-02	
463-58-1	463581	Carbonyl Sulfide									2.70E-02			0.00E+00	2.70E-02	
100-41-4	100414	Ethylbenzene	5.50E-05				1.19E-04		6.19E-06	7.77E-05	1.69E-02			0.00E+00	1.72E-02	
107-21-1	107211	Ethylene Glycol								2.89E-05				0.00E+00	2.89E-05	
108-88-3	108883	Toluene	2.77E-04	7.22E-06			2.34E-04		1.96E-04	3.38E-04	1.48E-01			0.00E+00	1.49E-01	
110-54-3	110543	Hexane (-n)												0.00E+00		
110-82-7	110827	Cyclohexane	8.47E-07				2.28E-04		2.33E-03	6.78E-05	5.16E-01			0.00E+00	5.19E-01	
111-46-6	111466	Diethylene Glycol	1.93E-06							1.03E-04	3.19E-03			0.00E+00	3.30E-03	
1310-73-2	1310732	Sodium Hydroxide			2.24E-03									0.00E+00	2.24E-03	
1330-20-7	1330207	Xylenes (mixed isomers)	7.29E-05	6.46E-07			1.54E-04			6.88E-05	1.31E-02			0.00E+00	1.34E-02	
95-47-6	95476	o-Xylene	7.57E-05				8.37E-05			4.17E-05	5.05E-03			0.00E+00	5.25E-03	
67-56-1	67561	Methyl Alcohol					1.31E-06							0.00E+00	1.31E-06	
67-63-0	67630	Isopropyl Alcohol												0.00E+00		
71-43-2	71432	Benzene	2.84E-04	2.27E-05			1.14E-04		1.07E-03	4.13E-04	3.10E-01			0.00E+00	3.12E-01	
7664-41-7	7664417	Ammonia	2.63E-05									9.43E-06		2.71E-06	3.85E-05	
91-20-3	91203	Naphthalene	6.17E-06				3.52E-05			9.69E-06				0.00E+00	5.10E-05	
95-63-6	95636	Trimethylbenzene (1,2,4)	2.21E-05				6.57E-05							0.00E+00	8.78E-05	

FHC - Gas Toxics
Exxon - SYU

Transportation
Terminal

		TT Gas Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	TT Fugitive Components (Gas)
		Device ID														360311
		Speciation	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2	
		VOC (Lb/day)	-	-	-	-	1.5167	0.1153	-	1.2336	-	-	-	-	8.7024	
CAS #	AB2588 No.	Compound Name	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide						3.80E-06		7.89E-06					9.44E-02	9.45E-02
75-15-0	75150	Carbon Disulfide													0.00E+00	
463-58-1	463581	Carbonyl Sulfide													0.00E+00	
100-41-4	100414	Ethylbenzene					1.38E-03	1.25E-07		4.19E-07					0.00E+00	1.38E-03
107-21-1	107211	Ethylene Glycol													0.00E+00	
108-88-3	108883	Toluene					2.71E-03	3.19E-07		1.33E-05					0.00E+00	2.73E-03
110-54-3	110543	Hexane (-n)													0.00E+00	
110-82-7	110827	Cyclohexane					2.64E-03	1.43E-07		1.58E-04					0.00E+00	2.80E-03
111-46-6	111466	Diethylene Glycol													0.00E+00	
1310-73-2	1310732	Sodium Hydroxide													0.00E+00	
1330-20-7	1330207	Xylenes (mixed isomers)					1.79E-03	1.73E-07							0.00E+00	1.79E-03
95-47-6	95476	o-Xylene					9.72E-04	1.09E-07							0.00E+00	9.72E-04
67-56-1	67561	Methyl Alcohol					1.52E-05	5.38E-06							0.00E+00	2.05E-05
67-63-0	67630	Isopropyl Alcohol													0.00E+00	
71-43-2	71432	Benzene					1.32E-03	3.17E-07		7.23E-05					0.00E+00	1.39E-03
7664-41-7	7664417	Ammonia													3.89E-06	3.89E-06
91-20-3	91203	Naphthalene					4.09E-04	5.77E-08							0.00E+00	4.09E-04
95-63-6	95636	Trimethylbenzene (1,2,4)					7.63E-04	9.69E-08							0.00E+00	7.63E-04

FHC - Gas Toxics
Exxon - SYU

POPCO		POPCO Gas Total	Acid Gas	Amine	Fuel Gas	Glycol	Methanol	NGL	Sales Gas	Sour Gas	Sour Water	Sulfur	Tail Gas	TEG/Water	Vapor Recovery	POPCO Fugitive Components (Gas)
Device ID	Speciation	POP-1	POP-2	POP-3	POP-4	Methanol	POP-6	POP-5	POP-7	POP-8	Sulfur	POP-10	POP-8	LFC-2	360511	
VOC (Lb/day)		28.0188	3.8431	67.7148	-	0.4520	8.0817	24.6558	139.4159	14.4412	-	3.5553	10.4204	-		
CAS #	AB2588 No.	Compound Name	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	
7783-06-4	7783064	Hydrogen Sulfide	3.72E+00	3.13E-04	5.51E-05		2.96E-03	6.48E-06	2.00E+00	1.44E-06		1.98E-05	1.04E-06		5.72E+00	
75-15-0	75150	Carbon Disulfide					6.63E-03					1.13E-06			6.63E-03	
463-58-1	463581	Carbonyl Sulfide			2.51E-04		5.20E-03	4.53E-05				5.27E-04			6.02E-03	
100-41-4	100414	Ethylbenzene	4.85E-04		1.01E-03		3.25E-03	7.20E-06	2.64E-03						7.39E-03	
107-21-1	107211	Ethylene Glycol														
108-88-3	108883	Toluene	3.51E-03	1.47E-05	1.11E-02		2.85E-02	1.27E-04	1.55E-02						5.87E-02	
110-54-3	110543	Hexane (-n)														
110-82-7	110827	Cyclohexane	9.51E-04		1.21E-02		9.93E-02	1.46E-03	4.35E-02						1.57E-01	
111-46-6	111466	Diethylene Glycol					6.14E-04								6.14E-04	
1310-73-2	1310732	Sodium Hydroxide														
1330-20-7	1330207	Xylenes (mixed isomers)	5.50E-04	1.32E-06	9.62E-04		2.53E-03		2.88E-03						6.92E-03	
95-47-6	95476	o-Xylene	2.66E-04		1.92E-04		9.73E-04		1.28E-03						2.71E-03	
67-56-1	67561	Methyl Alcohol					4.52E-01								4.52E-01	
67-63-0	67630	Isopropyl Alcohol														
71-43-2	71432	Benzene	7.61E-03	4.62E-05	2.38E-02		5.97E-02	5.04E-04	2.41E-02						1.16E-01	
7664-41-7	7664417	Ammonia	4.30E-06						5.60E-05						6.03E-05	
91-20-3	91203	Naphthalene														
95-63-6	95636	Trimethylbenzene (1,2,4)	2.90E-05		2.04E-05				3.17E-04						3.66E-04	

FHC - Gas Toxics
Exxon - SYU

SYU		SYU Gas Total	CPP Fugitive Components (Gas)	OTP Fugitive Components (Gas)	SGTP Fugitive Components (Gas)	TT Fugitive Components (Gas)	POPCO Fugitive Components (Gas)
Annual Total (lb/yr)		Device ID	360211	360111	360411	360311	360511
CAS #	AB2588 No.	No. Processes:	3	8	2	1	3
7783-06-4	7783064	Hydrogen Sulfide	7.52E-01	3.66E+01	1.27E+02	3.45E+01	6.96E+02
75-15-0	75150	Carbon Disulfide	7.04E-02	0.00E+00	6.29E+00	0.00E+00	8.06E-01
463-58-1	463581	Carbonyl Sulfide	5.53E-02	0.00E+00	4.93E+00	0.00E+00	7.33E-01
100-41-4	100414	Ethylbenzene	3.56E-02	3.98E-01	3.13E+00	5.05E-01	8.99E-01
107-21-1	107211	Ethylene Glycol	0.00E+00	0.00E+00	5.28E-03	0.00E+00	0.00E+00
108-88-3	108883	Toluene	3.11E-01	7.82E-01	2.72E+01	9.96E-01	7.14E+00
110-54-3	110543	Hexane (-n)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-82-7	110827	Cyclohexane	1.14E+00	9.45E-01	9.47E+01	1.02E+00	1.92E+01
111-46-6	111466	Diethylene Glycol	6.53E-03	6.80E-05	6.02E-01	0.00E+00	7.47E-02
1310-73-2	1310732	Sodium Hydroxide	0.00E+00	0.00E+00	4.10E-01	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	2.80E-02	5.11E-01	2.45E+00	6.53E-01	8.42E-01
95-47-6	95476	o-Xylene	1.09E-02	2.73E-01	9.59E-01	3.55E-01	3.29E-01
67-56-1	67561	Methyl Alcohol	9.10E-06	3.89E-02	2.38E-04	7.50E-03	5.50E+01
67-63-0	67630	Isopropyl Alcohol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71-43-2	71432	Benzene	6.72E-01	4.74E-01	5.70E+01	5.09E-01	1.41E+01
7664-41-7	7664417	Ammonia	2.95E-05	1.87E-03	7.02E-03	1.42E-03	7.34E-03
91-20-3	91203	Naphthalene	2.45E-04	1.25E-01	9.31E-03	1.49E-01	0.00E+00
95-63-6	95636	Trimethylbenzene (1,2,4)	4.58E-04	2.15E-01	1.60E-02	2.78E-01	4.45E-02

Notes:

Total emissions for each plant area will be distributed vertically into the specified number of volume sources (processes) for modeling purposes. The total emissions for each plant area are divided by the number of processes to evenly distribute the emissions.

SYU		SYU Gas Total	CPP Fugitive Components (Gas)	OTP Fugitive Components (Gas)	SGTP Fugitive Components (Gas)	TT Fugitive Components (Gas)	POPCO Fugitive Components (Gas)
Max Hour (lb/hr)		Device ID	360211	360111	360411	360311	360511
CAS #	AB2588 No.	No. Processes:	3	8	2	1	3
7783-06-4	7783064	Hydrogen Sulfide	8.58E-05	4.18E-03	1.45E-02	3.94E-03	7.95E-02
75-15-0	75150	Carbon Disulfide	8.04E-06		7.17E-04		9.21E-05
463-58-1	463581	Carbonyl Sulfide	6.31E-06		5.63E-04		8.36E-05
100-41-4	100414	Ethylbenzene	4.06E-06	4.55E-05	3.57E-04	5.77E-05	1.03E-04
107-21-1	107211	Ethylene Glycol			6.03E-07		
108-88-3	108883	Toluene	3.55E-05	8.92E-05	3.10E-03	1.14E-04	8.15E-04
110-54-3	110543	Hexane (-n)					
110-82-7	110827	Cyclohexane	1.30E-04	1.08E-04	1.08E-02	1.17E-04	2.19E-03
111-46-6	111466	Diethylene Glycol	7.45E-07	7.77E-09	6.87E-05		8.53E-06
1310-73-2	1310732	Sodium Hydroxide			4.68E-05		
1330-20-7	1330207	Xylenes (mixed isomers)	3.19E-06	5.83E-05	2.80E-04	7.46E-05	9.61E-05
95-47-6	95476	o-Xylene	1.25E-06	3.11E-05	1.09E-04	4.05E-05	3.76E-05
67-56-1	67561	Methyl Alcohol	1.04E-09	4.45E-06	2.72E-08	8.56E-07	6.28E-03
67-63-0	67630	Isopropyl Alcohol					
71-43-2	71432	Benzene	7.67E-05	5.41E-05	6.50E-03	5.81E-05	1.61E-03
7664-41-7	7664417	Ammonia	3.37E-09	2.14E-07	8.01E-07	1.62E-07	8.38E-07
91-20-3	91203	Naphthalene	2.80E-08	1.43E-05	1.06E-06	1.70E-05	
95-63-6	95636	Trimethylbenzene (1,2,4)	5.23E-08	2.45E-05	1.83E-06	3.18E-05	5.08E-06

FHC - Oil Toxics
Exxon - SYU

Cogeneration
Power Plant

		CPP Oil Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	CPP Fugitive Components (Oil)
		Device ID														360212
		Speciation	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2	
		VOC (Lb/day)	-	-	-	-	-	-	-	0.0406	-	0.0203	-	-	-	
CAS #	AB2588 No.		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide								2.60E-07		7.45E-06				7.71E-06
75-15-0	75150	Carbon Disulfide										1.67E-05				1.67E-05
463-58-1	463581	Carbonyl Sulfide										1.31E-05				1.31E-05
100-41-4	100414	Ethylbenzene								1.38E-08		8.17E-06				8.18E-06
107-21-1	107211	Ethylene Glycol														
108-88-3	108883	Toluene								4.37E-07		7.15E-05				7.20E-05
110-54-3	110543	Hexane (-n)														
110-82-7	110827	Cyclohexane								5.19E-06		2.50E-04				2.55E-04
111-46-6	111466	Diethylene Glycol										1.54E-06				1.54E-06
1310-73-2	1310732	Sodium Hydroxide														
1330-20-7	1330207	Xylenes (mixed isomers)										6.36E-06				6.36E-06
95-47-6	95476	o-Xylene										2.44E-06				2.44E-06
67-56-1	67561	Methyl Alcohol														
67-63-0	67630	Isopropyl Alcohol														
71-43-2	71432	Benzene								2.38E-06		1.50E-04				1.52E-04
7664-41-7	7664417	Ammonia														
91-20-3	91203	Napthalene														
95-63-6	95636	Trimethylbenzene (1,2,4)														

FHC - Oil Toxics
Exxon - SYU

Oil Treating Plant		OTP Oil Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	OTP Fugitive Components (Oil)	
		Device ID															360112
		Speciation	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2		
		VOC (Lb/day)	0.0650	-	-	0.2686	3.5991	6.4828	0.2253	0.1009	-	-	0.1854	-	0.0759		
CAS #	AB2588 No.		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	
7783-06-4	7783064	Hydrogen Sulfide	2.44E-02					2.13E-04		6.46E-07			2.01E-03		8.24E-04	2.74E-02	
75-15-0	75150	Carbon Disulfide													0.00E+00		
463-58-1	463581	Carbonyl Sulfide													0.00E+00		
100-41-4	100414	Ethylbenzene	3.46E-06			2.69E-02	3.28E-03	7.04E-06	1.13E-02	3.43E-08					0.00E+00	4.14E-02	
107-21-1	107211	Ethylene Glycol													0.00E+00		
108-88-3	108883	Toluene	1.74E-05				6.44E-03	1.79E-05		1.09E-06					0.00E+00	6.48E-03	
110-54-3	110543	Hexane (-n)													0.00E+00		
110-82-7	110827	Cyclohexane	5.33E-08				6.27E-03	8.02E-06		1.29E-05					0.00E+00	6.30E-03	
111-46-6	111466	Diethylene Glycol	1.22E-07												0.00E+00	1.22E-07	
1310-73-2	1310732	Sodium Hydroxide													0.00E+00		
1330-20-7	1330207	Xylenes (mixed isomers)	4.59E-06			1.34E-02	4.25E-03	9.73E-06	1.13E-02						0.00E+00	2.90E-02	
95-47-6	95476	o-Xylene	4.76E-06				2.31E-03	6.13E-06							0.00E+00	2.32E-03	
67-56-1	67561	Methyl Alcohol					3.60E-05	3.03E-04	2.25E-02						0.00E+00	2.29E-02	
67-63-0	67630	Isopropyl Alcohol				8.06E-02									0.00E+00	8.06E-02	
71-43-2	71432	Benzene	1.79E-05				3.13E-03	1.78E-05		5.92E-06					0.00E+00	3.18E-03	
7664-41-7	7664417	Ammonia	1.66E-06										8.29E-08		3.40E-08	1.77E-06	
91-20-3	91203	Naphthalene	3.88E-07			2.69E-03	9.69E-04	3.24E-06	1.13E-02						0.00E+00	1.49E-02	
95-63-6	95636	Trimethylbenzene (1,2,4)	1.39E-06				1.81E-03	5.45E-06	2.25E-03						0.00E+00	4.07E-03	

FHC - Oil Toxics
Exxon - SYU

Stripping Gas
Treatment Plant

		SGTP Oil Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	SGTP Fugitive Components (Oil)
Device ID																360412
Speciation		LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2		
VOC (Lb/day)		-	0.0008	-	-	0.0963	0.0020	-	0.0289	-	0.6210	0.0142	0.0034	0.3332		
CAS #	AB2588 No.		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide		6.88E-08			6.68E-08		1.85E-07		2.28E-04	1.54E-04		3.62E-03	4.00E-03	
75-15-0	75150	Carbon Disulfide									5.09E-04			0.00E+00	5.09E-04	
463-58-1	463581	Carbonyl Sulfide									4.00E-04			0.00E+00	4.00E-04	
100-41-4	100414	Ethylbenzene				8.79E-05	2.21E-09		9.83E-09		2.50E-04			0.00E+00	3.38E-04	
107-21-1	107211	Ethylene Glycol												0.00E+00		
108-88-3	108883	Toluene		3.24E-09			1.72E-04	5.62E-09	3.11E-07		2.19E-03			0.00E+00	2.36E-03	
110-54-3	110543	Hexane (-n)												0.00E+00		
110-82-7	110827	Cyclohexane				1.68E-04	2.51E-09		3.69E-06		7.63E-03			0.00E+00	7.80E-03	
111-46-6	111466	Diethylene Glycol									4.72E-05			0.00E+00	4.72E-05	
1310-73-2	1310732	Sodium Hydroxide												0.00E+00		
1330-20-7	1330207	Xylenes (mixed isomers)		2.90E-10			1.14E-04	3.05E-09			1.94E-04			0.00E+00	3.08E-04	
95-47-6	95476	o-Xylene					6.17E-05	1.92E-09			7.47E-05			0.00E+00	1.36E-04	
67-56-1	67561	Methyl Alcohol					9.63E-07	9.48E-08						0.00E+00	1.06E-06	
67-63-0	67630	Isopropyl Alcohol												0.00E+00		
71-43-2	71432	Benzene		1.02E-08			8.39E-05	5.59E-09	1.70E-06		4.59E-03			0.00E+00	4.67E-03	
7664-41-7	7664417	Ammonia										6.36E-09		1.49E-07	1.55E-07	
91-20-3	91203	Napthalene					2.59E-05	1.02E-09						0.00E+00	2.59E-05	
95-63-6	95636	Trimethylbenzene (1,2,4)					4.84E-05	1.71E-09						0.00E+00	4.84E-05	

FHC - Oil Toxics
Exxon - SYU

Transportation
Terminal

		TT Oil Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	TT Fugitive Components (Oil)
Device ID																360312
Speciation		LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2		
VOC (Lb/day)		-	-	-	-	1.2035	0.1162	-	0.0766	-	-	-	-	0.0585		
CAS #	AB2588 No.		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide						3.83E-06		4.90E-07				6.35E-04		6.39E-04
75-15-0	75150	Carbon Disulfide												0.00E+00		
463-58-1	463581	Carbonyl Sulfide												0.00E+00		
100-41-4	100414	Ethylbenzene					1.10E-03	1.26E-07		2.60E-08				0.00E+00		1.10E-03
107-21-1	107211	Ethylene Glycol												0.00E+00		
108-88-3	108883	Toluene					2.15E-03	3.22E-07		8.25E-07				0.00E+00		2.16E-03
110-54-3	110543	Hexane (-n)												0.00E+00		
110-82-7	110827	Cyclohexane					2.10E-03	1.44E-07		9.79E-06				0.00E+00		2.11E-03
111-46-6	111466	Diethylene Glycol												0.00E+00		
1310-73-2	1310732	Sodium Hydroxide												0.00E+00		
1330-20-7	1330207	Xylenes (mixed isomers)					1.42E-03	1.75E-07						0.00E+00		1.42E-03
95-47-6	95476	o-Xylene					7.71E-04	1.10E-07						0.00E+00		7.72E-04
67-56-1	67561	Methyl Alcohol					1.20E-05	5.42E-06						0.00E+00		1.75E-05
67-63-0	67630	Isopropyl Alcohol												0.00E+00		
71-43-2	71432	Benzene					1.05E-03	3.20E-07		4.49E-06				0.00E+00		1.05E-03
7664-41-7	7664417	Ammonia												2.62E-08		2.62E-08
91-20-3	91203	Napthalene					3.24E-04	5.82E-08						0.00E+00		3.24E-04
95-63-6	95636	Trimethylbenzene (1,2,4)					6.05E-04	9.77E-08						0.00E+00		6.05E-04

FHC - Oil Toxics
Exxon - SYU

SYU		SYU Gas Total	CPP Fugitive Components (Oii)	OTP Fugitive Components (Oii)	SGTP Fugitive Components (Oii)	TT Fugitive Components (Oii)
Annual Total (lb/yr)		Device ID	360212	360112	360412	360312
CAS #	AB2588 No.	No. Processes:	3	8	2	1
7783-06-4	7783064	Hydrogen Sulfide	9.38E-04	1.25E+00	7.30E-01	2.33E-01
75-15-0	75150	Carbon Disulfide	2.03E-03	0.00E+00	9.29E-02	0.00E+00
463-58-1	463581	Carbonyl Sulfide	1.59E-03	0.00E+00	7.29E-02	0.00E+00
100-41-4	100414	Ethylbenzene	9.96E-04	1.89E+00	6.16E-02	4.01E-01
107-21-1	107211	Ethylene Glycol	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	108883	Toluene	8.76E-03	2.96E-01	4.31E-01	7.87E-01
110-54-3	110543	Hexane (-n)	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-82-7	110827	Cyclohexane	3.10E-02	2.87E-01	1.42E+00	7.69E-01
111-46-6	111466	Diethylene Glycol	1.88E-04	5.55E-06	8.61E-03	0.00E+00
1310-73-2	1310732	Sodium Hydroxide	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	7.73E-04	1.32E+00	5.62E-02	5.18E-01
95-47-6	95476	o-Xylene	2.97E-04	1.06E-01	2.49E-02	2.82E-01
67-56-1	67561	Methyl Alcohol	0.00E+00	1.04E+00	1.93E-04	6.37E-03
67-63-0	67630	Isopropyl Alcohol	0.00E+00	3.68E+00	0.00E+00	0.00E+00
71-43-2	71432	Benzene	1.85E-02	1.45E-01	8.53E-01	3.84E-01
7664-41-7	7664417	Ammonia	0.00E+00	8.09E-05	2.84E-05	9.55E-06
91-20-3	91203	Naphthalene	0.00E+00	6.81E-01	4.73E-03	1.18E-01
95-63-6	95636	Trimethylbenzene (1,2,4)	0.00E+00	1.86E-01	8.84E-03	2.21E-01

Notes:

Total emissions for each plant area will be distributed vertically into the specified number of volume sources (processes) for modeling purposes. The total emissions for each plant area are divided by the number of processes to evenly distribute the emissions.

SYU		SYU Gas Total	CPP Fugitive Components (Oii)	OTP Fugitive Components (Oii)	SGTP Fugitive Components (Oii)	TT Fugitive Components (Oii)
Max Hour (lb/hr)		Device ID	360212	360112	360412	360312
CAS #	AB2588 No.	No. Processes:	3	8	2	1
7783-06-4	7783064	Hydrogen Sulfide	1.07E-07	1.43E-04	8.33E-05	2.66E-05
75-15-0	75150	Carbon Disulfide	2.31E-07		1.06E-05	
463-58-1	463581	Carbonyl Sulfide	1.81E-07		8.32E-06	
100-41-4	100414	Ethylbenzene	1.14E-07	2.16E-04	7.04E-06	4.58E-05
107-21-1	107211	Ethylene Glycol				
108-88-3	108883	Toluene	9.99E-07	3.37E-05	4.92E-05	8.98E-05
110-54-3	110543	Hexane (-n)				
110-82-7	110827	Cyclohexane	3.54E-06	3.28E-05	1.63E-04	8.78E-05
111-46-6	111466	Diethylene Glycol	2.14E-08	6.33E-10	9.83E-07	
1310-73-2	1310732	Sodium Hydroxide				
1330-20-7	1330207	Xylenes (mixed isomers)	8.83E-08	1.51E-04	6.42E-06	5.92E-05
95-47-6	95476	o-Xylene	3.39E-08	1.21E-05	2.84E-06	3.21E-05
67-56-1	67561	Methyl Alcohol		1.19E-04	2.20E-08	7.27E-07
67-63-0	67630	Isopropyl Alcohol		4.20E-04		
71-43-2	71432	Benzene	2.12E-06	1.65E-05	9.74E-05	4.39E-05
7664-41-7	7664417	Ammonia		9.24E-09	3.24E-09	1.09E-09
91-20-3	91203	Naphthalene		7.77E-05	5.40E-07	1.35E-05
95-63-6	95636	Trimethylbenzene (1,2,4)		2.12E-05	1.01E-06	2.52E-05

FHC - Pump Seal Toxics
Exxon - SYU

Cogeneration
Power Plant

CPP Pump Seal Total		Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	CPP Pump Seals
Device ID		LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2	380221
Speciation VOC (lb/day)															
CAS #	AB2588 No.	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide													
75-15-0	75150	Carbon Disulfide													
463-58-1	463581	Carbonyl Sulfide													
100-41-4	100414	Ethylbenzene													
107-21-1	107211	Ethylene Glycol													
108-88-3	108883	Toluene													
110-54-3	110543	Hexane (-n)													
110-82-7	110827	Cyclohexane													
111-46-6	111466	Diethylene Glycol													
1310-73-2	1310732	Sodium Hydroxide													
1330-20-7	1330207	Xylenes (mixed isomers)													
95-47-6	95476	o-Xylene													
67-56-1	67561	Methyl Alcohol													
67-63-0	67630	Isopropyl Alcohol													
71-43-2	71432	Benzene													
7664-41-7	7664417	Ammonia													
91-20-3	91203	Naphthalene													
95-63-6	95636	Trimethylbenzene (1,2,4)													

**FHC - Pump Seal Toxics
Exxon - SYU**

Oil Treating Plant		OTP Pump Seal Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	OTP Pump Seals	
		Device ID	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2	380121	
		Speciation															
		VOC (lb/day)				0.0558	0.2792	0.2234									
CAS #	AB2588 No.		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	
7783-06-4	7283064	Hydrogen Sulfide						7.35E-06								7.35E-06	
75-15-0	75150	Carbon Disulfide															
463-58-1	463581	Carbonyl Sulfide															
100-41-4	100414	Ethylbenzene				5.58E-03	2.55E-04	2.43E-07								5.84E-03	
107-21-1	107211	Ethylene Glycol															
108-88-3	108883	Toluene					5.00E-04	6.18E-07								5.00E-04	
110-54-3	110543	Hexane (-n)															
110-82-7	110827	Cyclohexane					4.87E-04	2.76E-07								4.87E-04	
111-46-6	111466	Diethylene Glycol															
1310-73-2	1310732	Sodium Hydroxide															
1330-20-7	1330207	Xylenes (mixed isomers)				2.79E-03	3.29E-04	3.35E-07								3.12E-03	
95-47-6	95476	o-Xylene					1.79E-04	2.11E-07								1.79E-04	
67-56-1	67561	Methyl Alcohol					2.79E-06	1.04E-05								1.32E-05	
67-63-0	67630	Isopropyl Alcohol				1.68E-02										1.68E-02	
71-43-2	71432	Benzene					2.43E-04	6.14E-07								2.44E-04	
7664-41-7	7664417	Ammonia															
91-20-3	91203	Naphthalene				5.58E-04	7.52E-05	1.12E-07								6.34E-04	
95-63-6	95636	Trimethylbenzene (1,2,4)					1.40E-04	1.88E-07								1.41E-04	

FHC - Pump Seal Toxics
Exxon - SYU

Stripping Gas
Treatment Plant

		SGTP Pump Seal Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	SGTP Pump Seals
Device ID			LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2	380421
Speciation VOC (lb/day)												0.7632			0.5585	
CAS #	AB2588 No.		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
7783-06-4	7783064	Hydrogen Sulfide										2.80E-04			6.06E-03	6.34E-03
75-15-0	75150	Carbon Disulfide										6.26E-04			0.00E+00	6.26E-04
463-58-1	463581	Carbonyl Sulfide										4.91E-04			0.00E+00	4.91E-04
100-41-4	100414	Ethylbenzene										3.07E-04			0.00E+00	3.07E-04
107-21-1	107211	Ethylene Glycol													0.00E+00	
108-88-3	108883	Toluene										2.69E-03			0.00E+00	2.69E-03
110-54-3	110543	Hexane (n)													0.00E+00	
110-82-7	110827	Cyclohexane										9.38E-03			0.00E+00	9.38E-03
111-46-6	111466	Diethylene Glycol										5.80E-05			0.00E+00	5.80E-05
1310-73-2	1310732	Sodium Hydroxide													0.00E+00	
1330-20-7	1330207	Xylenes (mixed isomers)										2.39E-04			0.00E+00	2.39E-04
95-47-6	95476	o-Xylene										9.18E-05			0.00E+00	9.18E-05
67-56-1	67561	Methyl Alcohol													0.00E+00	
67-63-0	67630	Isopropyl Alcohol													0.00E+00	
71-43-2	71432	Benzene										5.64E-03			0.00E+00	5.64E-03
7664-41-7	7664417	Ammonia													2.50E-07	2.50E-07
91-20-3	91203	Naphthalene													0.00E+00	
95-63-6	95636	Trimethylbenzene (1,2,4)													0.00E+00	

FHC - Pump Seal Toxics
Exxon - SYU

Transportation Terminal		TT Pump Seal Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	TT Pump Seals	
		Device ID															380321
		Speciation VOC (lb/day)	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-2		
CAS #	AB2588 No.	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	
7783-06-4	7783064	Hydrogen Sulfide															
75-15-0	75150	Carbon Disulfide															
463-58-1	463581	Carbonyl Sulfide															
100-41-4	100414	Ethylbenzene					2.97E-04									2.97E-04	
107-21-1	107211	Ethylene Glycol															
108-88-3	108883	Toluene					5.83E-04									5.83E-04	
110-54-3	110543	Hexane (n)															
110-82-7	110827	Cyclohexane					5.68E-04									5.68E-04	
111-46-6	111466	Diethylene Glycol															
1310-73-2	1310732	Sodium Hydroxide															
1330-20-7	1330207	Xylenes (mixed isomers)					3.84E-04									3.84E-04	
95-47-6	95476	o-Xylene					2.09E-04									2.09E-04	
67-56-1	67561	Methyl Alcohol					3.26E-06									3.26E-06	
67-63-0	67630	Isopropyl Alcohol															
71-43-2	71432	Benzene					2.84E-04									2.84E-04	
7664-41-7	7664417	Ammonia															
91-20-3	91203	Naphthalene					8.77E-05									8.77E-05	
95-63-6	95636	Trimethylbenzene (1,2,4)					1.64E-04									1.64E-04	

FHC - Pump Seal Toxics
Exxon - SYU

SYU		SYU Gas Total	CPP Pump Seals	OTP Pump Seals	SGTP Pump Seals	TT Pump Seals	POPCO Pump Seals
Annual Total (lb/yr)	Device ID		380221	380121	380421	380321	380521
CAS #	AB2588 No.	No. Processes:	3	8	2	1	3
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00	3.35E-04	1.16E+00	0.00E+00	1.23E+00
75-15-0	75150	Carbon Disulfide	0.00E+00	0.00E+00	1.14E-01	0.00E+00	4.41E-03
463-58-1	463581	Carbonyl Sulfide	0.00E+00	0.00E+00	8.96E-02	0.00E+00	3.47E-03
100-41-4	100414	Ethylbenzene	0.00E+00	2.66E-01	5.60E-02	1.09E-01	2.55E-03
107-21-1	107211	Ethylene Glycol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	108883	Toluene	0.00E+00	2.28E-02	4.91E-01	2.19E-01	2.16E-02
110-54-3	110543	Hexane (n)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-82-7	110827	Cyclohexane	0.00E+00	2.22E-02	1.71E+00	2.07E-01	7.02E-02
111-46-6	111466	Diethylene Glycol	0.00E+00	0.00E+00	1.06E-02	0.00E+00	4.09E-04
1310-73-2	1310732	Sodium Hydroxide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00	1.42E-01	4.36E-02	1.40E-01	2.10E-03
95-47-6	95476	o-Xylene	0.00E+00	8.18E-03	1.68E-02	7.62E-02	8.30E-04
67-56-1	67561	Methyl Alcohol	0.00E+00	6.03E-04	0.00E+00	1.19E-03	0.00E+00
67-63-0	67630	Isopropyl Alcohol	0.00E+00	7.64E-01	0.00E+00	0.00E+00	0.00E+00
71-43-2	71432	Benzene	0.00E+00	1.11E-02	1.03E+00	1.04E-01	4.47E-02
7664-41-7	7664417	Ammonia	0.00E+00	0.00E+00	4.56E-05	0.00E+00	5.56E-06
91-20-3	91203	Naphthalene	0.00E+00	2.89E-02	0.00E+00	3.20E-02	0.00E+00
95-63-6	95636	Trimethylbenzene (1,2,4)	0.00E+00	6.42E-03	0.00E+00	5.98E-02	3.36E-05

Notes:

Total emissions for each plant area will be distributed vertically into the specified number of volume sources (processes) for modeling purposes. The total emissions for each plant area are divided by the number of processes to evenly distribute the emissions.

SYU		SYU Gas Total	CPP Pump Seals	OTP Pump Seals	SGTP Pump Seals	TT Pump Seals	POPCO Pump Seals
Max Hour (lb/hr)	Device ID		380221	380121	380421	380321	380521
CAS #	AB2588 No.	No. Processes:	3	8	2	1	3
7783-06-4	7783064	Hydrogen Sulfide		3.83E-08	1.32E-04		1.40E-04
75-15-0	75150	Carbon Disulfide			1.30E-05		5.03E-07
463-58-1	463581	Carbonyl Sulfide			1.02E-05		3.96E-07
100-41-4	100414	Ethylbenzene		3.04E-05	6.40E-06	1.24E-05	2.91E-07
107-21-1	107211	Ethylene Glycol					
108-88-3	108883	Toluene		2.61E-06	5.60E-05	2.43E-05	2.46E-06
110-54-3	110543	Hexane (n)					
110-82-7	110827	Cyclohexane		2.54E-06	1.95E-04	2.37E-05	8.02E-06
111-46-6	111466	Diethylene Glycol			1.21E-06		4.67E-08
1310-73-2	1310732	Sodium Hydroxide					
1330-20-7	1330207	Xylenes (mixed isomers)		1.63E-05	4.98E-06	1.60E-05	2.40E-07
95-47-6	95476	o-Xylene		9.33E-07	1.91E-06	8.70E-06	9.47E-08
67-56-1	67561	Methyl Alcohol		6.88E-08		1.36E-07	
67-63-0	67630	Isopropyl Alcohol		8.73E-05			
71-43-2	71432	Benzene		1.27E-06	1.17E-04	1.18E-05	5.11E-06
7664-41-7	7664417	Ammonia			5.20E-09		6.35E-10
91-20-3	91203	Naphthalene		3.30E-06		3.66E-06	
95-63-6	95636	Trimethylbenzene (1,2,4)		7.33E-07		6.83E-06	3.83E-09

**FHC - CompressorSeal Toxics
Exxon - SYU**

Cogeneration Power Plant	CPP Compressor Seal Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	CPP Compressor Seals 380222
	Device ID														
	Speciation VOC (Lb/day)	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-3	
CAS #	AB2588 No.		lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year
7783-06-4	7783064	Hydrogen Sulfide													
75-15-0	75150	Carbon Disulfide													
463-58-1	463581	Carbonyl Sulfide													
100-41-4	100414	Ethylbenzene													
107-21-1	107211	Ethylene Glycol													
108-10-1	108101	Methyl Isobutyl Ketone													
108-88-3	108883	Toluene													
108-90-7	108907	Chlorobenzene													
110-54-3	110543	Hexane (-n)													
110-82-7	110827	Cyclohexane													
111-46-6	111466	Diethylene Glycol													
111-76-2	111762	Glycol Ether EB													
112-34-5	112345	Butyl Dioxitol													
127-18-4	127184	Tetrachloroethene													
1310-73-2	1310732	Sodium Hydroxide													
1330-20-7	1330207	Xylenes (mixed isomers)													
95-47-6	95476	o-Xylene													
50-00-0	50000	Formaldehyde													
67-56-1	67561	Methyl Alcohol													
67-63-0	67630	Isopropyl Alcohol													
71-43-2	71432	Benzene													
7664-41-7	7664417	Ammonia													
78-93-3	78933	Methyl Ethyl Ketone													
91-20-3	91203	Naphthalene													
95-63-6	95636	Trimethylbenzene (1,2,4)													

**FHC - CompressorSeal Toxics
Exxon - SYU**

Oil Treating Plant	OTP Compressor Seal Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	OTP Compressor Seals
	Device ID														
	Speciation VOC (lb/day)	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-3	
CAS #	AB2588 No.		lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year
7783-06-4	7783064	Hydrogen Sulfide													
75-15-0	75150	Carbon Disulfide													
463-58-1	463581	Carbonyl Sulfide													
100-41-4	100414	Ethylbenzene													
107-21-1	107211	Ethylene Glycol													
108-10-1	108101	Methyl Isobutyl Ketone													
108-88-3	108883	Toluene													
108-90-7	108907	Chlorobenzene													
110-54-3	110543	Hexane (-n)													
110-82-7	110827	Cyclohexane													
111-46-6	111466	Diethylene Glycol													
111-76-2	111762	Glycol Ether EB													
112-34-5	112345	Butyl Dioxitol													
127-18-4	127184	Tetrachloroethene													
1310-73-2	1310732	Sodium Hydroxide													
1330-20-7	1330207	Xylenes (mixed isomers)													
95-47-6	95476	o-Xylene													
50-00-0	50000	Formaldehyde													
67-56-1	67561	Methyl Alcohol													
67-63-0	67630	Isopropyl Alcohol													
71-43-2	71432	Benzene													
7664-41-7	7664417	Ammonia													
78-93-3	78933	Methyl Ethyl Ketone													
91-20-3	91203	Naphthalene													
95-63-6	95636	Trimethylbenzene (1,2,4)													

**FHC - CompressorSeal Toxics
Exxon - SYU**

Stripping Gas Treatment Plant	SGTP Compressor Seal Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	SGTP Compressor Seals
															380422
	Device ID														
	Speciation	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-3	
	VOC (Lb/day)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAS #	AB2588 No.		lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year
7783-06-4	7783064	Hydrogen Sulfide													
75-15-0	75150	Carbon Disulfide													
463-58-1	463581	Carbonyl Sulfide													
100-41-4	100414	Ethylbenzene													
107-21-1	107211	Ethylene Glycol													
108-10-1	108101	Methyl Isobutyl Ketone													
108-88-3	108883	Toluene													
108-90-7	108907	Chlorobenzene													
110-54-3	110543	Hexane (-n)													
110-82-7	110827	Cyclohexane													
111-46-6	111466	Diethylene Glycol													
111-76-2	111762	Glycol Ether EB													
112-34-5	112345	Butyl Dioxitol													
127-18-4	127184	Tetrachloroethene													
1310-73-2	1310732	Sodium Hydroxide													
1330-20-7	1330207	Xylenes (mixed isomers)													
95-47-6	95476	o-Xylene													
50-00-0	50000	Formaldehyde													
67-56-1	67561	Methyl Alcohol													
67-63-0	67630	Isopropyl Alcohol													
71-43-2	71432	Benzene													
7664-41-7	7664417	Ammonia													
78-93-3	78933	Methyl Ethyl Ketone													
91-20-3	91203	Naphthalene													
95-63-6	95636	Trimethylbenzene (1,2,4)													

**FHC - CompressorSeal Toxics
Exxon - SYU**

CAS #	AB2588 No.	Transportation Terminal	TT Compressor Seal Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	NGL	Sour Gas	Sulfur	Vapor Recovery	TT Compressor Seals	
		Device ID																380322
		Speciation	LFC-4	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	LFC-3	POP-4	POP-6	LFC-2	Sulfur	LFC-3			
		VOC (Lb/day)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	
7783-06-4	7783064	Hydrogen Sulfide																
75-15-0	75150	Carbon Disulfide																
463-58-1	463581	Carbonyl Sulfide																
100-41-4	100414	Ethylbenzene																
107-21-1	107211	Ethylene Glycol																
108-10-1	108101	Methyl Isobutyl Ketone																
108-88-3	108883	Toluene																
108-90-7	108907	Chlorobenzene																
110-54-3	110543	Hexane (-n)																
110-82-7	110827	Cyclohexane																
111-46-6	111466	Diethylene Glycol																
111-76-2	111762	Glycol Ether EB																
112-34-5	112345	Butyl Dioxitol																
127-18-4	127184	Tetrachloroethene																
1310-73-2	1310732	Sodium Hydroxide																
1330-20-7	1330207	Xylenes (mixed isomers)																
95-47-6	95476	o-Xylene																
50-00-0	50000	Formaldehyde																
67-56-1	67561	Methyl Alcohol																
67-63-0	67630	Isopropyl Alcohol																
71-43-2	71432	Benzene																
7664-41-7	7664417	Ammonia																
78-93-3	78933	Methyl Ethyl Ketone																
91-20-3	91203	Naphthalene																
95-63-6	95636	Trimethylbenzene (1,2,4)																

**FHC - CompressorSeal Toxics
Exxon - SYU**

POPCO		POPCO Compressor Seal Total	Acid Gas	Amine	Caustic	Corrosion Inhibitor	Crude Oil	Crude Oil Emulsion	Demulsifier	Fuel Gas	Glycol	Methanol	NGL	Sales Gas	Sour Gas	Sour Water
		Device ID														
		Speciation	POP-1	POP-2	Caustic	Corrosion Inhibitor	LFC-7	LFC-1	Demulsifier	POP-3	POP-4	Methanol	POP-6	POP-5	POP-7	POP-8
		VOC (Lb/day)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAS #	AB2588 No.		lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year	lb/year
7783-06-4	7783064	Hydrogen Sulfide														
75-15-0	75150	Carbon Disulfide														
463-58-1	463581	Carbonyl Sulfide														
100-41-4	100414	Ethylbenzene														
107-21-1	107211	Ethylene Glycol														
108-10-1	108101	Methyl Isobutyl Ketone														
108-88-3	108883	Toluene														
108-90-7	108907	Chlorobenzene														
110-54-3	110543	Hexane (-n)														
110-82-7	110827	Cyclohexane														
111-46-6	111466	Diethylene Glycol														
111-76-2	111762	Glycol Ether EB														
112-34-5	112345	Butyl Dioxitol														
127-18-4	127184	Tetrachloroethene														
1310-73-2	1310732	Sodium Hydroxide														
1330-20-7	1330207	Xylenes (mixed isomers)														
95-47-6	95476	o-Xylene														
50-00-0	50000	Formaldehyde														
67-56-1	67561	Methyl Alcohol														
67-63-0	67630	Isopropyl Alcohol														
71-43-2	71432	Benzene														
7664-41-7	7664417	Ammonia														
78-93-3	78933	Methyl Ethyl Ketone														
91-20-3	91203	Naphthalene														
95-63-6	95636	Trimethylbenzene (1,2,4)														

FHC - CompressorSeal Toxics
Exxon - SYU

SYU		SYU Gas Total	CPP Compressor Seals	OTP Compressor Seals	SGTP Compressor Seals	TT Compressor Seals	POPCO Compressor Seals
Annual Total (lb/yr)	Device ID		380222	380122	380422	380322	380522
CAS #	AB2588 No.	No. Processes:	0	0	0	0	0
7783-06-4	7783064	Hydrogen Sulfide	0	0	0	0	0
75-15-0	75150	Carbon Disulfide	0	0	0	0	0
463-58-1	463581	Carbonyl Sulfide	0	0	0	0	0
100-41-4	100414	Ethylbenzene	0	0	0	0	0
107-21-1	107211	Ethylene Glycol	0	0	0	0	0
108-10-1	108101	Methyl Isobutyl Ketone	0	0	0	0	0
108-88-3	108883	Toluene	0	0	0	0	0
108-90-7	108907	Chlorobenzene	0	0	0	0	0
110-54-3	110543	Hexane (-n)	0	0	0	0	0
110-82-7	110827	Cyclohexane	0	0	0	0	0
111-46-6	111466	Diethylene Glycol	0	0	0	0	0
111-76-2	111762	Glycol Ether EB	0	0	0	0	0
112-34-5	112345	Butyl Dioxitol	0	0	0	0	0
127-18-4	127184	Tetrachloroethene	0	0	0	0	0
1310-73-2	1310732	Sodium Hydroxide	0	0	0	0	0
1330-20-7	1330207	Xylenes (mixed isomers)	0	0	0	0	0
95-47-6	95476	o-Xylene	0	0	0	0	0
50-00-0	50000	Formaldehyde	0	0	0	0	0
67-56-1	67561	Methyl Alcohol	0	0	0	0	0
67-63-0	67630	Isopropyl Alcohol	0	0	0	0	0
71-43-2	71432	Benzene	0	0	0	0	0
7664-41-7	7664417	Ammonia	0	0	0	0	0
78-93-3	78933	Methyl Ethyl Ketone	0	0	0	0	0
91-20-3	91203	Naphthalene	0	0	0	0	0
95-63-6	95636	Trimethylbenzene (1,2,4)	0	0	0	0	0

SYU		SYU Gas Total	CPP Compressor Seals	OTP Compressor Seals	SGTP Compressor Seals	TT Compressor Seals	POPCO Compressor Seals
Max Hour (lb/hr)	Device ID		380222	380122	380422	380322	380522
CAS #	AB2588 No.	No. Processes:	0	0	0	0	0
7783-06-4	7783064		0	0	0	0	0
75-15-0	75150		0	0	0	0	0
463-58-1	463581		0	0	0	0	0
100-41-4	100414		0	0	0	0	0
107-21-1	107211		0	0	0	0	0
108-10-1	108101		0	0	0	0	0
108-88-3	108883		0	0	0	0	0
108-90-7	108907		0	0	0	0	0
110-54-3	110543		0	0	0	0	0
110-82-7	110827		0	0	0	0	0
111-46-6	111466		0	0	0	0	0
111-76-2	111762		0	0	0	0	0
112-34-5	112345		0	0	0	0	0
127-18-4	127184		0	0	0	0	0
1310-73-2	1310732		0	0	0	0	0
1330-20-7	1330207		0	0	0	0	0
95-47-6	95476		0	0	0	0	0
50-00-0	50000		0	0	0	0	0
67-56-1	67561		0	0	0	0	0
67-63-0	67630		0	0	0	0	0
71-43-2	71432		0	0	0	0	0
7664-41-7	7664417		0	0	0	0	0
78-93-3	78933		0	0	0	0	0
91-20-3	91203		0	0	0	0	0
95-63-6	95636		0	0	0	0	0

**HRSG
Exxon - SYU**

Exxon - SYU

Equation 4 1 Annual Average Emissions of NH₃

$$E_{yr, NH_3} = \frac{(C_{avg} * Q * 10^{-6} * M_{NH_3} * C_2 * C_3)}{(C_1)}$$

Where:

E_{yr,NH₃} = Average emission rate of ammonia, [lb/year]

C_{avg} = Average stack ammonia concentration, [ppm]

Q = Stack flowrate, [dscfm]

M_{NH₃} = Molecular weight of ammonia, [17 lb/lb-mole]

C₁ = Standard molar volume at 68 °F, [385 ft³/lb-mole]

C₂ = 60 minute/hour

C₃ = Hours of operation per year, [8,760 hours/year]

Equation 4 2 Hourly Maximum Emissions of NH₃

$$E_{hr, NH_3} = \frac{(C_{max} * Q * 10^{-6} * M_{NH_3} * C_2)}{(C_1)}$$

Where:

E_{hr,NH₃} = Maximum emission rate of ammonia, [lb/hour]

C_{max} = Maximum hourly recorded stack ammonia concentration, [ppm]

Notes:

Average Stack flow for 2013.

CPP = 13.3 mmscfh

3 CPP NH₃ slip samples taken between 07:57 and 11:59 PST on 1/8/13. Avg conc. 2.7 ppm.

Highest hour CPP stack flow occurred on 1/15/13 @ 07:00 = 15.4 mmscfh

cpp NH₃ slip ranged from 2 to 8 ppm

			Device Desc	Ammonia Storage Vessel/Injection System
			Device ID	221050
			Speciation	Ammonia Slip
			Average NH3 (ppm)	2.70
			Average Stack Flow Rate (dscfm)	221,666.67
CAS #	AB2588 No.			
7664-41-7	7664417	Ammonia	lb/yr	13,890.17

			Device Desc	Ammonia Storage Vessel/Injection System
			Device ID	221050
			Speciation	Ammonia Slip
			Max NH3 (ppm)	8.00
			Max Stack Flow Rate (dscfm)	256,666.67
CAS #	AB2588 No.			
7664-41-7	7664417	Ammonia	lb/hr	5.44

**Solvents
Exxon - SYU**

StkName	Quality Control Lab	Maintenance Shop	CPP Process Solvent Loss	OTP Process Solvent Loss	SGTP Process Solvent Loss	TT Process Solvent Loss	POPCO Process Solvent Loss
Facility	LFC	LFC	LFC	LFC	LFC	LFC	POPCO
Plant Area	QC Lab	Maintenance Shop	CPP	OTP	SGTP	TT	POPCO
Device Name	Lab Analysis	Parts Cleaning	Process Solvent Loss	Process Solvent Loss	Process Solvent Loss	Process Solvent Loss	Process Solvent Loss
Device ID	111990	318023	390220	390120	390420	390320	390520
No. Processes:	1	1	3	8	2	1	3
CAS #	AB2588 No.	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr
95-63-6	95636	Trimethylbenzene (1,2,4)	1.56E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
100-41-4	100414	Ethylbenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-43-0	110430	Methyl Amyl Ketone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E+01
108-88-3	108883	Toluene	4.68E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

StkName	Quality Control Lab	Maintenance Shop	CPP Process Solvent Loss	OTP Process Solvent Loss	SGTP Process Solvent Loss	TT Process Solvent Loss	POPCO Process Solvent Loss
Facility	LFC	LFC	LFC	LFC	LFC	LFC	POPCO
Plant Area	QC Lab	Maintenance Shop	CPP	OTP	SGTP	TT	POPCO
Device Name	Lab Analysis	Parts Cleaning	Process Solvent Loss	Process Solvent Loss	Process Solvent Loss	Process Solvent Loss	Process Solvent Loss
Device ID	111990	318023	390220	390120	390420	390320	390520
No. Processes:	1	1	3	8	2	1	3
CAS #	AB2588 No.	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
95-63-6	95636	Trimethylbenzene (1,2,4)	2.18E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
100-41-4	100414	Ethylbenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-43-0	110430	Methyl Amyl Ketone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.27E-01
108-88-3	108883	Toluene	1.05E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

**Solvents
Exxon - SYU**

Solvent Use

		Annual	
		Type of Solvent Use	Lab Analysis
		Solvent	Mineral Spirits
		Method of Recovery	Closed Container
		Plant Area	QC Lab
		Usage (gal)	4.74
		VOC (lbs/period)	31.26
CAS #	AB2588 No.		Wt. Fraction (lb/yr)
95-63-6	95636	Trimethylbenzene (1,2,4)	0.05
100-41-4	100414	Ethylbenzene	
110-43-0	110430	Methyl Amyl Ketone	
78-93-3	78933	Methyl Ethyl Ketone	
108-88-3	108883	Toluene	
1330-20-7	1330207	Xylenes (mixed isomers)	

		Annual	
		Type of Solvent Use	Lab Analysis
		Solvent	Toluene
		Method of Recovery	Closed Container
		Plant Area	QC Lab
		Usage (gal)	7.43
		VOC (lbs/period)	46.76
		Wt. Fraction (lb/yr)	
		1.00	46.76

		Annual	
		Type of Solvent Use	Spray Painting
		Solvent	Thinner 76
		Method of Recovery	Closed Container
		Plant Area	POPCO
		Usage (gal)	5.64
		VOC (lbs/period)	37.81
		Wt. Fraction (lb/yr)	
		1.00	37.81

		Max Hour	
		Type of Solvent Use	Lab Analysis
		Solvent	Mineral Spirits
		Method of Recovery	Closed Container
		Plant Area	QC Lab
		Usage (gal)	0.66
		VOC (lbs/period)	4.36
CAS #	AB2588 No.		Max (lb/hr)
95-63-6	95636	Trimethylbenzene (1,2,4)	0.05
100-41-4	100414	Ethylbenzene	
110-43-0	110430	Methyl Amyl Ketone	
78-93-3	78933	Methyl Ethyl Ketone	
108-88-3	108883	Toluene	
1330-20-7	1330207	Xylenes (mixed isomers)	

		Max Hour	
		Type of Solvent Use	Lab Analysis
		Solvent	Toluene
		Method of Recovery	Closed Container
		Plant Area	QC Lab
		Usage (gal)	1.67
		VOC (lbs/period)	10.49
		Wt. Fraction Max (lb/hr)	
		1.00	10.49

		Max Hour	
		Type of Solvent Use	Spray Painting
		Solvent	Thinner 76
		Method of Recovery	Closed Container
		Plant Area	POPCO
		Usage (gal)	0.33
		VOC (lbs/period)	2.18
		Wt. Fraction Max (lb/hr)	
		1.00	2.18

**Paints
Exxon - SYU**

StkName	CPP Maint. Painting & Coating	OTP Maint. Painting & Coating	SGTP Maint. Painting & Coating	TT Maint. Painting & Coating	POPCO Maint. Painting & Coating		
Facility	LFC	LFC	LFC	LFC	POPCO		
Plant Area	CPP	OTP	SGTP	TT	POPCO		
Device Name	Painting & Coating	Painting & Coating	Painting & Coating	Painting & Coating	Painting & Coating		
Device ID	370212	370112	370412	370312	370512		
No. Processes:		3	8	2	1	3	
CAS #	AB2588 No.	(lb/yr)	(lb/yr)	(lb/yr)	(lb/yr)	(lb/yr)	
95-63-6	95636	Trimethylbenzene (1,2,4)	8.65E-02	3.24E-02	1.30E-01	2.59E-01	3.73E+00
100-41-4	100414	Ethylbenzene	9.84E-02	3.69E-02	1.48E-01	2.95E-01	2.92E+00
107-21-1	107211	Ethylene Glycol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-65-6	108656	Glycol Ether PM Acetate	2.43E-03	9.13E-04	3.65E-03	7.30E-03	2.68E+00
110-43-0	110430	Methyl Amyl Ketone	2.70E-01	1.01E-01	4.05E-01	8.10E-01	6.18E+00
78-93-3	78933	Methyl Ethyl Ketone	2.22E-01	8.33E-02	3.33E-01	6.66E-01	3.95E+00
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	108883	Toluene	2.43E-03	9.13E-04	3.65E-03	7.30E-03	9.36E+00
1330-20-7	1330207	Xylenes (mixed isomers)	3.87E-01	1.45E-01	5.81E-01	1.16E+00	1.43E+01

StkName	CPP Maint. Painting & Coating	OTP Maint. Painting & Coating	SGTP Maint. Painting & Coating	TT Maint. Painting & Coating	POPCO Maint. Painting & Coating		
Facility	LFC	LFC	LFC	LFC	POPCO		
Plant Area	CPP	OTP	SGTP	TT	POPCO		
Device Name	Painting & Coating	Painting & Coating	Painting & Coating	Painting & Coating	Painting & Coating		
Device ID	370212	370112	370412	370312	370512		
No. Processes:		3	8	2	1	3	
CAS #	AB2588 No.	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	
95-63-6	95636	Trimethylbenzene (1,2,4)	1.32E-02	4.94E-03	1.98E-02	3.96E-02	5.63E-01
100-41-4	100414	Ethylbenzene	1.72E-02	6.43E-03	2.57E-02	5.15E-02	3.59E-01
107-21-1	107211	Ethylene Glycol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-65-6	108656	Glycol Ether PM Acetate	9.73E-04	3.65E-04	1.46E-03	2.92E-03	1.02E-01
110-43-0	110430	Methyl Amyl Ketone	2.66E-02	9.96E-03	3.98E-02	7.97E-02	9.92E-01
78-93-3	78933	Methyl Ethyl Ketone	2.30E-02	8.64E-03	3.46E-02	6.91E-02	8.77E-01
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	108883	Toluene	9.73E-04	3.65E-04	1.46E-03	2.92E-03	2.89E+00
1330-20-7	1330207	Xylenes (mixed isomers)	6.14E-02	2.30E-02	9.21E-02	1.84E-01	1.83E+00

Annual Total

Paint Application	Industrial Maintenance	Industrial Maintenance	Paint Application	Industrial Maintenance	Paint Application
Paint/Product Code	Carbothane 134 VOC	Carbothane 134 VOC	Paint/Product Code	Enviroline 405HT	Paint/Product Code
Use	Paint-Coating	Paint-Coating	Use	Paint-Coating	Use
Plant Area	LFC	POPCO	Plant Area	LFC	Plant Area
Usage (gal)	4.92	53.00	Usage (gal)	4.00	Usage (gal)
VOC (lbs/period)	7.77	83.74	VOC (lbs/period)	2.16	VOC (lbs/period)
CAS #	AB2588 No.	Wt. Fraction	(lb/yr)	(lb/yr)	Wt. Fraction
95-63-6	95636	Trimethylbenzene (1,2,4)	0.13	1.04	11.18
100-41-4	100414	Ethylbenzene	0.06	0.48	5.19
107-21-1	107211	Ethylene Glycol			
108-65-6	108656	Glycol Ether PM Acetate			
110-43-0	110430	Methyl Amyl Ketone			
78-93-3	78933	Methyl Ethyl Ketone			
108-10-1	108101	Methyl Isobutyl Ketone			
108-88-3	108883	Toluene			
1330-20-7	1330207	Xylenes (mixed isomers)	0.39	3.01	32.43
			0.10	0.22	

Max Hourly

Paint Application	Industrial Maintenance	Industrial Maintenance	Paint Application	Industrial Maintenance	Paint Application
Paint/Product Code	Carbothane 134 VOC	Carbothane 134 VOC	Paint/Product Code	Enviroline 405HT	Paint/Product Code
Use	Paint-Coating	Paint-Coating	Use	Paint-Coating	Use
Plant Area	LFC	POPCO	Plant Area	LFC	Plant Area
Usage (gal)	0.75	8.00	Usage (gal)	1.00	Usage (gal)
VOC (lbs/period)	1.19	12.64	VOC (lbs/period)	0.54	VOC (lbs/period)
CAS #	AB2588 No.	Wt. Fraction	(lb/hr)	(lb/hr)	Wt. Fraction
95-63-6	95636	Trimethylbenzene (1,2,4)	0.13	0.16	1.69
100-41-4	100414	Ethylbenzene	0.06	0.07	0.78
107-21-1	107211	Ethylene Glycol			
108-65-6	108656	Glycol Ether PM Acetate			
110-43-0	110430	Methyl Amyl Ketone			
78-93-3	78933	Methyl Ethyl Ketone			
108-10-1	108101	Methyl Isobutyl Ketone			
108-88-3	108883	Toluene			
1330-20-7	1330207	Xylenes (mixed isomers)	0.39	0.46	4.89
			0.10	0.05	

**Paints
Exxon - SYU**

Industrial Maintenance
PSX 700
Paint-Coating
LFC
5.75
4.03

CAS #	(lb/yr)
95-63-6	
100-41-4	
107-21-1	
108-65-6	
110-43-0	
78-93-3	
108-10-1	
108-88-3	
1330-20-7	

Industrial Maintenance
PSX 700
Paint-Coating
LFC
1.00
0.70

CAS #	(lb/hr)
95-63-6	
100-41-4	
107-21-1	
108-65-6	
110-43-0	
78-93-3	
108-10-1	
108-88-3	
1330-20-7	

**Pigging
Exxon - SYU**

Exxon - SYU

Device Desc	Oil Emulsion Pig Receiver
Device ID	137100
Location	TT
Speciation	757
Density of Vapor in Vessel (lb/ft3)	0.0504
TOC EF (lb-TOC/Event)	3.9586
Number of Events	43.00

CAS #	AB2588 No.		Wt Fraction	lb/yr
71-43-2	71432	Benzene	1.00E-03	1.70E-01
110-54-3	110543	Hexane (-n)	5.20E-02	8.85E+00

Device Desc	Oil Emulsion Pig Receiver
Device ID	137100
Location	TT
Speciation	757
Density of Vapor in Vessel (lb/ft3)	0.0504
TOC EF (lb-TOC/Event)	3.9586
Max Event/Hour	1.00

CAS #	AB2588 No.		Wt Fraction	lb/hr
71-43-2	71432	Benzene	1.00E-03	3.96E-03
110-54-3	110543	Hexane (-n)	5.20E-02	2.06E-01

Notes:

Benzene is the only air toxic on CARB's AB2588 list or OEHHA's Consolidated Table of Risk Assessment Health Values.

**Produced Water System
Exxon - SYU**

			Device Name	Aerator A	Aerator B	Centrate tank	Clarifier A	Clarifier B	Outfall Batch Tank	Skim tank
			Device ID	214250	214260	114430	214280	214290	214310	214500
			Speciation	LFC-6	LFC-6	LFC-6	LFC-6	LFC-6	LFC-6	LFC-6
			Surface Area (ft2)	8,668	8,668	144	8,537	8,537	561	200
			Hours of Operation	8,760	8,760	8,760	8,760	8,760	8,760	8,760
			Control Efficiency	0%	0%	0%	0%	0%	0%	0%
			Ewater (lb/hr)	251.94	251.94	4.19	248.13	248.13	16.30	5.81
CAS #	AB2588 No.		LFC-6	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00							
75-15-0	75150	Carbon Disulfide	0.00E+00							
463-58-1	463581	Carbonyl Sulfide	0.00E+00							
100-41-4	100414	Ethylbenzene	0.00E+00							
107-21-1	107211	Ethylene Glycol	0.00E+00							
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00							
108-88-3	108883	Toluene	0.00E+00							
108-90-7	108907	Chlorobenzene	0.00E+00							
110-54-3	110543	Hexane (-n)	0.00E+00							
110-82-7	110827	Cyclohexane	0.00E+00							
111-46-6	111466	Diethylene Glycol	0.00E+00							
111-76-2	111762	Glycol Ether EB	0.00E+00							
112-34-5	112345	Butyl Dioxitol	0.00E+00							
127-18-4	127184	Tetrachloroethene	0.00E+00							
1310-73-2	1310732	Sodium Hydroxide	0.00E+00							
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00							
95-47-6	95476	o-Xylene	0.00E+00							
50-00-0	50000	Formaldehyde	0.00E+00							
67-56-1	67561	Methyl Alcohol	0.00E+00							
67-63-0	67630	Isopropyl Alcohol	0.00E+00							
71-43-2	71432	Benzene	0.00E+00							
7664-41-7	7664417	Ammonia	1.34E-04	2.97E+02	2.97E+02	4.93E+00	2.92E+02	2.92E+02	1.92E+01	6.84E+00
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00							
91-20-3	91203	Naphthalene	0.00E+00							
95-63-6	95636	Trimethylbenzene (1,2,4)	0.00E+00							

**Produced Water System
Exxon - SYU**

			Device Name	Aerator A	Aerator B	Centrate tank	Clarifier A	Clarifier B	Outfall Batch Tank	Skim tank
			Device ID	214250	214260	114430	214280	214290	214310	214500
			Speciation	LFC-6	LFC-6	LFC-6	LFC-6	LFC-6	LFC-6	LFC-6
			Surface Area (ft2)	8,668	8,668	144	8,537	8,537	561	200
			Control Efficiency	0%	0%	0%	0%	0%	0%	0%
			Ewater (lb/hr)	251.94	251.94	4.19	248.13	248.13	16.30	5.81
CAS #	AB2588 No.		LFC-6	lb/hour	lb/hour	lb/hour	lb/hour	lb/hour	lb/hour	lb/hour
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00							
75-15-0	75150	Carbon Disulfide	0.00E+00							
463-58-1	463581	Carbonyl Sulfide	0.00E+00							
100-41-4	100414	Ethylbenzene	0.00E+00							
107-21-1	107211	Ethylene Glycol	0.00E+00							
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00							
108-88-3	108883	Toluene	0.00E+00							
108-90-7	108907	Chlorobenzene	0.00E+00							
110-54-3	110543	Hexane (-n)	0.00E+00							
110-82-7	110827	Cyclohexane	0.00E+00							
111-46-6	111466	Diethylene Glycol	0.00E+00							
111-76-2	111762	Glycol Ether EB	0.00E+00							
112-34-5	112345	Butyl Dioxitol	0.00E+00							
127-18-4	127184	Tetrachloroethene	0.00E+00							
1310-73-2	1310732	Sodium Hydroxide	0.00E+00							
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00							
95-47-6	95476	o-Xylene	0.00E+00							
50-00-0	50000	Formaldehyde	0.00E+00							
67-56-1	67561	Methyl Alcohol	0.00E+00							
67-63-0	67630	Isopropyl Alcohol	0.00E+00							
71-43-2	71432	Benzene	0.00E+00							
7664-41-7	7664417	Ammonia	1.34E-04	3.39E-02	3.39E-02	5.63E-04	3.34E-02	3.34E-02	2.19E-03	7.81E-04
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00							
91-20-3	91203	Naphthalene	0.00E+00							
95-63-6	95636	Trimethylbenzene (1,2,4)	0.00E+00							

**Produced Water System
Exxon - SYU**

CAS #	Sludge Cake Tote Bins A	Sludge Cake Tote Bins B	Device Name	Anaerobic Filter A	Anaerobic Filter B	Equalization Tank	Device Name	VF Tower Feed Drum	Device Name	Wastewater Tank
	215371	215372	Device ID	211090	211190	114240	Device ID	211380	Device ID	150270
	LFC-6	LFC-6	Speciation	LFC-5	LFC-5	LFC-5	Speciation	LFC-1	Speciation	POP-8
	90	90	Surface Area (ft2)	2,290	2,290	3,848.5	Surface Area (ft2)	700	Surface Area (ft2)	2,278
	8,760	8,760	Hours of Operation	8,760	8,760	8,760	Hours of Operation	8,760	Hours of Operation	8,760
	0%	0%	Control Efficiency	99.8%	99.8%	75%	Control Efficiency	99.8%	Control Efficiency	90%
	2.62	2.62	Ewater (lb/hr)	66.56	66.56	111.86	Ewater (lb/hr)	20.35	Ewater (lb/hr)	66.20
	lb/yr	lb/yr	LFC-5	lb/yr	lb/yr	lb/yr	LFC-1	lb/yr	POP-8	lb/yr
7783-06-4			1.08E-05	1.26E-02	1.26E-02	1.06E-02	3.29E-05	1.17E-02	9.94E-08	5.77E-03
75-15-0			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
463-58-1			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
100-41-4			2.02E-08	2.36E-05	2.36E-05	4.95E-03	1.09E-06	3.87E-04	0.00E+00	0.00E+00
107-21-1			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-10-1			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3			1.60E-07	1.87E-04	1.87E-04	3.93E-02	2.77E-06	9.86E-04	0.00E+00	0.00E+00
108-90-7			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-54-3			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-82-7			0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E-06	4.41E-04	0.00E+00	0.00E+00
111-46-6			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
111-76-2			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
112-34-5			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
127-18-4			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1310-73-2			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1330-20-7			0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-06	5.35E-04	0.00E+00	0.00E+00
95-47-6			2.74E-08	3.19E-05	3.19E-05	6.71E-03	9.46E-07	3.37E-04	0.00E+00	0.00E+00
50-00-0			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
67-56-1			0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.67E-05	1.66E-02	0.00E+00	0.00E+00
67-63-0			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71-43-2			4.69E-07	5.47E-04	5.47E-04	1.15E-01	2.75E-06	9.80E-04	0.00E+00	0.00E+00
7664-41-7	3.08E+00	3.08E+00	1.75E-04	2.04E-01	2.04E-01	4.29E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
78-93-3			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91-20-3			1.85E-08	2.15E-05	2.15E-05	4.52E-03	5.00E-07	1.78E-04	0.00E+00	0.00E+00
95-63-6			0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.40E-07	2.99E-04	0.00E+00	0.00E+00

**Produced Water System
Exxon - SYU**

	Sludge Cake Tote Bins A	Sludge Cake Tote Bins B	Device Name	Anaerobic Filter A	Anaerobic Filter B	Equalization Tank	Device Name	VF Tower Feed Drum	Device Name	Wastewater Tank
	215371	215372	Device ID	211090	211190	114240	Device ID	211380	Device ID	150270
	LFC-6	LFC-6	Speciation	LFC-5	LFC-5	LFC-5	Speciation	LFC-1	Speciation	POP-8
	90	90	Surface Area (ft2)	2,290	2,290	3,848.5	Surface Area (ft2)	700	Surface Area (ft2)	2,278
	0%	0%	Control Efficiency	95%	95%	75%	Control Efficiency	95%	Control Efficiency	90%
	2.62	2.62	Ewater (lb/hr)	66.56	66.56	111.86	Ewater (lb/hr)	20.35	Ewater (lb/hr)	66.20
CAS #	lb/hour	lb/hour	LFC-5	lb/hour	lb/hour	lb/hour	LFC-1	lb/hour	POP-8	lb/hour
7783-06-4			1.08E-05	3.60E-05	3.60E-05	1.21E-06	3.29E-05	3.35E-05	9.94E-08	6.58E-07
75-15-0			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
463-58-1			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
100-41-4			2.02E-08	6.72E-08	6.72E-08	5.65E-07	1.09E-06	1.11E-06	0.00E+00	
107-21-1			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
108-10-1			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
108-88-3			1.60E-07	5.33E-07	5.33E-07	4.48E-06	2.77E-06	2.81E-06	0.00E+00	
108-90-7			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
110-54-3			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
110-82-7			0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E-06	1.26E-06	0.00E+00	
111-46-6			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
111-76-2			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
112-34-5			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
127-18-4			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
1310-73-2			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
1330-20-7			0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-06	1.53E-06	0.00E+00	
95-47-6			2.74E-08	9.12E-08	9.12E-08	7.66E-07	9.46E-07	9.62E-07	0.00E+00	
50-00-0			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
67-56-1			0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.67E-05	4.75E-05	0.00E+00	
67-63-0			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
71-43-2			4.69E-07	1.56E-06	1.56E-06	1.31E-05	2.75E-06	2.80E-06	0.00E+00	
7664-41-7	3.52E-04	3.52E-04	1.75E-04	5.83E-04	5.83E-04	4.90E-03	0.00E+00	0.00E+00	0.00E+00	
78-93-3			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
91-20-3			1.85E-08	6.14E-08	6.14E-08	5.16E-07	5.00E-07	5.09E-07	0.00E+00	
95-63-6			0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.40E-07	8.55E-07	0.00E+00	

**Steam System
Exxon - SYU**

Exxon - SYU
Steam System

Equation 4 15 Hourly Maximum Emissions from Steam System

$$E_{hdz,hr} = \frac{E_{hdz,yr}}{8760}$$

Equation 4 16 Annual Average Emissions from Steam System

$$E_{hdz,yr} = Q_{hdz} \times D_{hdz} \times C_{hdz} \times \left(\frac{1 - B/F}{100} \right)$$

Where:

$E_{hdz,yr}$ = Average emission rate of hydrazine, lb/yr

Q_{hdz} = Quantity of hydrazine dispensed, gal/yr (0.01% of Trasar dispensed)

D_{hdz} = Density of hydrazine solution, 8.7 lb/gal

C_{hdz} = Concentration of hydrazine solution, weight percent

B/F = Ratio of blowdown to total feedwater makeup

Note:

ExxonMobil no longer uses Hydrazine, which is an air toxic under AB2588 and does have a health risk value under OEHHA.

ExxonMobil now uses Carbohydrazide which is not an air toxic under AB2588 and does not have a health risk value under OEHHA.

Device Name	Steam Condensate System	Steam Drum
Device ID:	221090	121120
Location		
Speciation	Hydrazine	Hydrazine
Density (lb/gal)	8.7	8.7
Concentration (wt %)	0.000100	0.000100
Blowdown (klb/hr)	1.6	1.6
Makeup Water (klb/hr)	22	22
Boiler/Feedwater Ratio	0.0727	0.0727
Quantity Dispensed (gal/year)	404	404
lb/year	3.26E-03	3.26E-03

CAS #	AB2588 No.	
497-18-7		Hydrazine

Device Desc	Steam Condensate System	Steam Drum
Device ID	221090	121120
Location		
Speciation	Hydrazine	Hydrazine
Density (lb/gal)	8.7	8.7
Concentration (wt %)	0.000100	0.000100
Blowdown (klb/hr)	1.6	1.6
Boiler/Feedwater Ratio	0.0727	0.0727
lb/hr	3.72E-07	3.72E-07

CAS #	AB2588 No.	
497-18-7		Hydrazine

**Sumps Separators
Exxon - SYU**

Device Name	Area Drain Oil/Water Separator - OTP	Area Drain Oil/Water Separator - TT	Area Drain Sump - OTP	Area Drain Sump - TT	Backwash Sump	Open Drain Sump - OTP	Device Name
Device ID	114150	134020	214140	234030	114420	114130	Device ID
Speciation	LFC-7	LFC-7	LFC-7	LFC-7	LFC-7 and 20% NaOH	LFC-7	Speciation
Surface Area (ft2)	113	64	1,056	162	312	59	Surface Area (ft2)
Hours of Operation	8,760	8,760	8,760	8,760	8,760	8,760	Hours of Operation
Control Efficiency	75%	75%	0%	0%	95%	95%	Control Efficiency
EF (lbs/ft2-day)*	0.0015	0.0015	0.0058	0.0058	0.0003	0.0015	EF (lbs/ft2-day)*
VOC Emissions (lb/year)	59.81	33.66	2,235.55	341.90	33.03	31.23	VOC Emissions (lb/year)

CAS #	AB2588 No.		LFC-7	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	LFC-1
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00								3.29E-05
75-15-0	75150	Carbon Disulfide	0.00E+00								0.00E+00
463-58-1	463581	Carbonyl Sulfide	0.00E+00								0.00E+00
100-41-4	100414	Ethylbenzene	9.13E-04	5.46E-02	3.07E-02	2.04E+00	3.12E-01	3.01E-02	2.85E-02		1.09E-06
107-21-1	107211	Ethylene Glycol	0.00E+00								0.00E+00
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00								0.00E+00
108-88-3	108883	Toluene	1.79E-03	1.07E-01	6.03E-02	4.00E+00	6.12E-01	5.91E-02	5.59E-02		2.77E-06
108-90-7	108907	Chlorobenzene	0.00E+00								0.00E+00
110-54-3	110543	Hexane (-n)	0.00E+00								0.00E+00
110-82-7	110827	Cyclohexane	1.74E-03	1.04E-01	5.87E-02	3.90E+00	5.96E-01	5.76E-02	5.44E-02		1.24E-06
111-46-6	111466	Diethylene Glycol	0.00E+00								0.00E+00
111-76-2	111762	Glycol Ether EB	0.00E+00								0.00E+00
112-34-5	112345	Butyl Dioxitol	0.00E+00								0.00E+00
127-18-4	127184	Tetrachloroethene	0.00E+00								0.00E+00
1310-73-2	1310732	Sodium Hydroxide	0.00E+00					1.01E+00			0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	1.18E-03	7.06E-02	3.97E-02	2.64E+00	4.03E-01	3.90E-02	3.68E-02		1.50E-06
95-47-6	95476	o-Xylene	6.41E-04	3.83E-02	2.16E-02	1.43E+00	2.19E-01	2.12E-02	2.00E-02		9.46E-07
50-00-0	50000	Formaldehyde	0.00E+00								0.00E+00
67-56-1	67561	Methyl Alcohol	1.00E-05	5.98E-04	3.37E-04	2.24E-02	3.42E-03	3.30E-04	3.12E-04		4.67E-05
67-63-0	67630	Isopropyl Alcohol	0.00E+00								0.00E+00
71-43-2	71432	Benzene	8.71E-04	5.21E-02	2.93E-02	1.95E+00	2.98E-01	2.88E-02	2.72E-02		2.75E-06
7664-41-7	7664417	Ammonia	0.00E+00								0.00E+00
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00								0.00E+00
91-20-3	91203	Naphthalene	2.69E-04	1.61E-02	9.07E-03	6.02E-01	9.21E-02	8.89E-03	8.41E-03		5.00E-07
95-63-6	95636	Trimethylbenzene (1,2,4)	5.03E-04	3.01E-02	1.69E-02	1.12E+00	1.72E-01	1.66E-02	1.57E-02		8.40E-07

**Sumps Separators
Exxon - SYU**

		Device Name	Area Drain Oil/Water Separator - OTP	Area Drain Oil/Water Separator - TT	Area Drain Sump - OTP	Area Drain Sump - TT	Backwash Sump	Open Drain Sump - OTP	Device Name	
		Device ID	114150	134020	214140	234030	114420	114130	Device ID	
		Speciation	LFC-7	LFC-7	LFC-7	LFC-7	LFC-7	LFC-7	Speciation	
CAS #	AB2588 No.		LFC-7	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	LFC-1	
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00						3.29E-05	
75-15-0	75150	Carbon Disulfide	0.00E+00						0.00E+00	
463-58-1	463581	Carbonyl Sulfide	0.00E+00						0.00E+00	
100-41-4	100414	Ethylbenzene	9.13E-04	6.23E-06	3.51E-06	2.33E-04	3.56E-05	3.44E-06	3.25E-06	1.09E-06
107-21-1	107211	Ethylene Glycol	0.00E+00							0.00E+00
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00							0.00E+00
108-88-3	108883	Toluene	1.79E-03	1.22E-05	6.88E-06	4.57E-04	6.99E-05	6.75E-06	6.38E-06	2.77E-06
108-90-7	108907	Chlorobenzene	0.00E+00							0.00E+00
110-54-3	110543	Hexane (-n)	0.00E+00							0.00E+00
110-82-7	110827	Cyclohexane	1.74E-03	1.19E-05	6.70E-06	4.45E-04	6.80E-05	6.57E-06	6.21E-06	1.24E-06
111-46-6	111466	Diethylene Glycol	0.00E+00							0.00E+00
111-76-2	111762	Glycol Ether EB	0.00E+00							0.00E+00
112-34-5	112345	Butyl Dioxitol	0.00E+00							0.00E+00
127-18-4	127184	Tetrachloroethene	0.00E+00							0.00E+00
1310-73-2	1310732	Sodium Hydroxide	0.00E+00				1.15E-04			0.00E+00
1330-20-7	1330207	Xylenes (mixed isomers)	1.18E-03	8.06E-06	4.53E-06	3.01E-04	4.61E-05	4.45E-06	4.21E-06	1.50E-06
95-47-6	95476	o-Xylene	6.41E-04	4.38E-06	2.46E-06	1.64E-04	2.50E-05	2.42E-06	2.28E-06	9.46E-07
50-00-0	50000	Formaldehyde	0.00E+00							0.00E+00
67-56-1	67561	Methyl Alcohol	1.00E-05	6.83E-08	3.84E-08	2.55E-06	3.90E-07	3.77E-08	3.56E-08	4.67E-05
67-63-0	67630	Isopropyl Alcohol	0.00E+00							0.00E+00
71-43-2	71432	Benzene	8.71E-04	5.95E-06	3.35E-06	2.22E-04	3.40E-05	3.28E-06	3.10E-06	2.75E-06
7664-41-7	7664417	Ammonia	0.00E+00							0.00E+00
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00							0.00E+00
91-20-3	91203	Naphthalene	2.69E-04	1.84E-06	1.03E-06	6.87E-05	1.05E-05	1.02E-06	9.60E-07	5.00E-07
95-63-6	95636	Trimethylbenzene (1,2,4)	5.03E-04	3.43E-06	1.93E-06	1.28E-04	1.96E-05	1.90E-06	1.79E-06	8.40E-07

Sumps Separators
Exxon - SYU

Backwash Collection Tank
214210
LFC-1
113
8,760
95%
0.0003
11.96

CAS #	AB2588 No.		lb/yr
7783-06-4	7783064	Hydrogen Sulfide	3.94E-04
75-15-0	75150	Carbon Disulfide	
463-58-1	463581	Carbonyl Sulfide	
100-41-4	100414	Ethylbenzene	1.30E-05
107-21-1	107211	Ethylene Glycol	
108-10-1	108101	Methyl Isobutyl Ketone	
108-88-3	108883	Toluene	3.31E-05
108-90-7	108907	Chlorobenzene	
110-54-3	110543	Hexane (-n)	
110-82-7	110827	Cyclohexane	1.48E-05
111-46-6	111466	Diethylene Glycol	
111-76-2	111762	Glycol Ether EB	
112-34-5	112345	Butyl Dioxitol	
127-18-4	127184	Tetrachloroethene	
1310-73-2	1310732	Sodium Hydroxide	
1330-20-7	1330207	Xylenes (mixed isomers)	1.80E-05
95-47-6	95476	o-Xylene	1.13E-05
50-00-0	50000	Formaldehyde	
67-56-1	67561	Methyl Alcohol	5.58E-04
67-63-0	67630	Isopropyl Alcohol	
71-43-2	71432	Benzene	3.29E-05
7664-41-7	7664417	Ammonia	
78-93-3	78933	Methyl Ethyl Ketone	
91-20-3	91203	Naphthalene	5.99E-06
95-63-6	95636	Trimethylbenzene (1,2,4)	1.00E-05

**Sumps Separators
Exxon - SYU**

			Backwash Collection Tank
			214210
			LFC-1
CAS #	AB2588 No.		lb/hr
7783-06-4	7783064	Hydrogen Sulfide	4.49E-08
75-15-0	75150	Carbon Disulfide	
463-58-1	463581	Carbonyl Sulfide	
100-41-4	100414	Ethylbenzene	1.48E-09
107-21-1	107211	Ethylene Glycol	
108-10-1	108101	Methyl Isobutyl Ketone	
108-88-3	108883	Toluene	3.78E-09
108-90-7	108907	Chlorobenzene	
110-54-3	110543	Hexane (-n)	
110-82-7	110827	Cyclohexane	1.69E-09
111-46-6	111466	Diethylene Glycol	
111-76-2	111762	Glycol Ether EB	
112-34-5	112345	Butyl Dioxitol	
127-18-4	127184	Tetrachloroethene	
1310-73-2	1310732	Sodium Hydroxide	
1330-20-7	1330207	Xylenes (mixed isomers)	2.05E-09
95-47-6	95476	o-Xylene	1.29E-09
50-00-0	50000	Formaldehyde	
67-56-1	67561	Methyl Alcohol	6.37E-08
67-63-0	67630	Isopropyl Alcohol	
71-43-2	71432	Benzene	3.76E-09
7664-41-7	7664417	Ammonia	
78-93-3	78933	Methyl Ethyl Ketone	
91-20-3	91203	Naphthalene	6.83E-10
95-63-6	95636	Trimethylbenzene (1,2,4)	1.15E-09

**Sumps Separators
Exxon - SYU**

Device Name	Oily Sludge Thickener	Device Name	Area Drain Oil/Water Separator - SGTP	Area Drain Sump - SGTP	Open Drain Sump - SGTP
Device ID	114230	Device ID	144060	244050	144070
Speciation	297	Speciation	POP-8	POP-8	POP-8
Surface Area (ft2)	1,809	Surface Area (ft2)	64	102	7
Hours of Operation	8,760	Hours of Operation	8,760	8,760	8,760
Control Efficiency	95%	Control Efficiency	75%	0%	95%
EF (lbs/ft2-day)*	0.0003	EF (lbs/ft2-day)*	0.0015	0.0058	0.0015
VOC Emissions (lb/year)	191.48	VOC Emissions (lb/year)	33.67	215.93	3.70

CAS #	AB2588 No.		297	lb/yr	POP-8	lb/yr	lb/yr	lb/yr
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00		9.94E-08	3.35E-06	2.15E-05	3.68E-07
75-15-0	75150	Carbon Disulfide	0.00E+00		0.00E+00			
463-58-1	463581	Carbonyl Sulfide	0.00E+00		0.00E+00			
100-41-4	100414	Ethylbenzene	0.00E+00		0.00E+00			
107-21-1	107211	Ethylene Glycol	0.00E+00		0.00E+00			
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00		0.00E+00			
108-88-3	108883	Toluene	1.40E-02	2.68E+00	0.00E+00			
108-90-7	108907	Chlorobenzene	0.00E+00		0.00E+00			
110-54-3	110543	Hexane (-n)	4.70E-02	9.00E+00	0.00E+00			
110-82-7	110827	Cyclohexane	0.00E+00		0.00E+00			
111-46-6	111466	Diethylene Glycol	0.00E+00		0.00E+00			
111-76-2	111762	Glycol Ether EB	0.00E+00		0.00E+00			
112-34-5	112345	Butyl Dioxitol	0.00E+00		0.00E+00			
127-18-4	127184	Tetrachloroethene	0.00E+00		0.00E+00			
1310-73-2	1310732	Sodium Hydroxide	0.00E+00		0.00E+00			
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00		0.00E+00			
95-47-6	95476	o-Xylene	0.00E+00		0.00E+00			
50-00-0	50000	Formaldehyde	0.00E+00		0.00E+00			
67-56-1	67561	Methyl Alcohol	0.00E+00		0.00E+00			
67-63-0	67630	Isopropyl Alcohol	0.00E+00		0.00E+00			
71-43-2	71432	Benzene	2.40E-02	4.60E+00	0.00E+00			
7664-41-7	7664417	Ammonia	0.00E+00		0.00E+00			
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00		0.00E+00			
91-20-3	91203	Naphthalene	0.00E+00		0.00E+00			
95-63-6	95636	Trimethylbenzene (1,2,4)	0.00E+00		0.00E+00			

**Sumps Separators
Exxon - SYU**

CAS #	AB2588 No.	Device Name	Oily Sludge Thickener	Device Name	Area Drain Oil/Water Separator - SGTP	Area Drain Sump - SGTP	Open Drain Sump - SGTP
		Device ID	114230	Device ID	144060	244050	144070
		Speciation	297	Speciation	POP-8	POP-8	POP-8
		297	lb/hr	POP-8	lb/hr	lb/hr	lb/hr
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00	9.94E-08	3.82E-10	2.45E-09	4.21E-11
75-15-0	75150	Carbon Disulfide	0.00E+00	0.00E+00			
463-58-1	463581	Carbonyl Sulfide	0.00E+00	0.00E+00			
100-41-4	100414	Ethylbenzene	0.00E+00	0.00E+00			
107-21-1	107211	Ethylene Glycol	0.00E+00	0.00E+00			
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00	0.00E+00			
108-88-3	108883	Toluene	1.40E-02	3.06E-04			
108-90-7	108907	Chlorobenzene	0.00E+00	0.00E+00			
110-54-3	110543	Hexane (-n)	4.70E-02	1.03E-03			
110-82-7	110827	Cyclohexane	0.00E+00	0.00E+00			
111-46-6	111466	Diethylene Glycol	0.00E+00	0.00E+00			
111-76-2	111762	Glycol Ether EB	0.00E+00	0.00E+00			
112-34-5	112345	Butyl Dioxitol	0.00E+00	0.00E+00			
127-18-4	127184	Tetrachloroethene	0.00E+00	0.00E+00			
1310-73-2	1310732	Sodium Hydroxide	0.00E+00	0.00E+00			
1330-20-7	1330207	Xylenes (mixed isomers)	0.00E+00	0.00E+00			
95-47-6	95476	o-Xylene	0.00E+00	0.00E+00			
50-00-0	50000	Formaldehyde	0.00E+00	0.00E+00			
67-56-1	67561	Methyl Alcohol	0.00E+00	0.00E+00			
67-63-0	67630	Isopropyl Alcohol	0.00E+00	0.00E+00			
71-43-2	71432	Benzene	2.40E-02	5.25E-04			
7664-41-7	7664417	Ammonia	0.00E+00	0.00E+00			
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00	0.00E+00			
91-20-3	91203	Naphthalene	0.00E+00	0.00E+00			
95-63-6	95636	Trimethylbenzene (1,2,4)	0.00E+00	0.00E+00			

Tanks
Exxon - SYU

Exxon - SYU

Control Efficiencies:

Atm	0.00
VRS	0.998
VRS-Short	0.95
Carbon	0.75

Device Desc	Diesel Storage Tank	Fw Pump Diesel Fuel Tanks (1 of 2)	Fw Pump Diesel Fuel Tanks (2 of 2)	Diesel Tanks (1 of 2)	Diesel Tanks (2 of 2)	Device Desc	SOV Lube Oil Tank	VR Lube Oil Tank	Device Desc	Methanol Tank
Device ID	114160	113963	113963	150200	150200	Device ID	114170	114190	Device ID	150210
Location	OTP	OTP	OTP	POPCO	POPCO	Location			Location	POPCO
TYPE	Small FRT	Small FRT	Small FRT	Small FRT	Small FRT	TYPE	Small FRT	Small FRT	TYPE	Small FRT
SERVICE	Diesel	Diesel	Diesel	Diesel	Diesel	SERVICE	Lube Oil	Lube Oil	SERVICE	Methanol
Speciation	Fuel Oil #2	Fuel Oil #2	Fuel Oil #2	Fuel Oil #2	Fuel Oil #2	Speciation	Lube Oil	Lube Oil	Speciation	Methanol
Diameter (ft)	12	3.5	3.5	4	4	Diameter (ft)			Diameter (ft)	10.00
Height (ft)	16	3.5	3.5	6	6	Height (ft)			Height (ft)	21.00
Throughput (Gallons)	700	334	367	560	3,540	Throughput (Gallons)			Throughput (Gallons)	990.00
Withdraw/Working	0.02	0.01	0.01	0.01	0.09	Withdraw/Working			Withdraw/Working	1.28
Standing/Breathing	2.07	0.04	0.04	0.09	0.09	Standing/Breathing			Standing/Breathing	111.21
Uncontrolled VOC (lb/yr)	2.08	0.05	0.05	0.10	0.17	Uncontrolled VOC (lb/yr)			Uncontrolled VOC (lb/yr)	112.49
Control Device	Atm	Atm	Atm	Atm	Atm	Control Device	Atm	Atm	Control Device	Atm
Control Efficiency						Control Efficiency			Control Efficiency	
Withdraw/Working	0.02	0.01	0.01	0.01	0.09	Withdraw/Working			Withdraw/Working	1.28
Standing/Breathing	2.07	0.04	0.04	0.09	0.09	Standing/Breathing			Standing/Breathing	111.21
VOC Emissions	2.08	0.05	0.05	0.10	0.17	VOC Emissions			VOC Emissions	112.49
Diesel	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	Lube Oil	lb/yr	lb/yr	Methanol	lb/yr
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00							
75-15-0	75150	Carbon Disulfide	0.00E+00							
463-58-1	463581	Carbonyl Sulfide	0.00E+00							
100-41-4	100414	Ethylbenzene	1.00E-04	2.08E-04	4.66E-06	4.74E-06	9.98E-06	1.72E-05		
107-21-1	107211	Ethylene Glycol	0.00E+00							
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00							
108-88-3	108883	Toluene	3.00E-04	6.25E-04	1.40E-05	1.42E-05	2.99E-05	5.15E-05		
108-90-7	108907	Chlorobenzene	0.00E+00							
110-54-3	110543	Hexane (n)	0.00E+00							
110-82-7	110827	Cyclohexane	0.00E+00							
111-46-6	111466	Diethylene Glycol	0.00E+00							
111-76-2	111762	Glycol Ether EB	0.00E+00							
112-34-5	112345	Butyl Dioxitol	0.00E+00							
127-18-4	127184	Tetrachloroethene	0.00E+00							
1310-73-2	1310732	Sodium Hydroxide	0.00E+00							
1330-20-7	1330207	Xylenes (mixed isomers)	2.90E-03	6.04E-03	1.35E-04	1.37E-04	2.89E-04	4.98E-04		
95-47-6	95476	o-Xylene	0.00E+00							
50-00-0	50000	Formaldehyde	0.00E+00							
67-56-1	67561	Methyl Alcohol	0.00E+00						1.00E+00	1.12E+02
67-63-0	67630	Isopropyl Alcohol	0.00E+00							
71-43-2	71432	Benzene	0.00E+00							
7664-41-7	7664417	Ammonia	0.00E+00							
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00							
91-20-3	91203	Naphthalene	0.00E+00							
95-63-6	95636	Trimethylbenzene (1,2,4)	1.00E-02	2.08E-02	4.66E-04	4.74E-04	9.98E-04	1.72E-03		

**Tanks
Exxon - SYU**

Device Desc	Diesel Storage Tank	Fw Pump Diesel Fuel Tanks (1 of 2)	Fw Pump Diesel Fuel Tanks (2 of 2)	Diesel Tanks (1 of 2)	Diesel Tanks (2 of 2)	Device Desc	SOV Lube Oil Tank	VR Lube Oil Tank	Device Desc	Methanol Tank		
Device ID	114160	113963	113963	150200	150200	Device ID	114170	114190	Device ID	150210		
Location	OTP	OTP	OTP	POPCO	POPCO	Location			Location	POPCO		
TYPE	Small FRT	Small FRT	Small FRT	Small FRT	Small FRT	TYPE	Small FRT	Small FRT	TYPE	Small FRT		
SERVICE	Diesel	Diesel	Diesel	Diesel	Diesel	SERVICE	Lube Oil	Lube Oil	SERVICE	Methanol		
Speciation	Fuel Oil #2	Fuel Oil #2	Fuel Oil #2	Fuel Oil #2	Fuel Oil #2	Speciation	Lube Oil	Lube Oil	Speciation	Methanol		
Diameter (ft)	12	3.5	3.5	4	4	Diameter (ft)			Diameter (ft)	10		
Height (ft)	16	3.5	3.5	6	6	Height (ft)			Height (ft)	21		
Throughput (Gallons)	26	13.09	13.09	23.10	23.10	Throughput (Gallons)			Throughput (Gallons)	990		
Withdraw/Working	0.0006	0.0003	0.0003	0.0006	0.0006	Withdraw/Working			Withdraw/Working	1.28		
Standing/Breathing	0.0003	0.0000	0.0000	0.0000	0.0000	Standing/Breathing			Standing/Breathing	0.01		
Uncontrolled VOC (lb/hr)	0.00095	0.00032	0.00032	0.00057	0.00057	Uncontrolled VOC (lb/hr)			Uncontrolled VOC (lb/hr)	1.30		
Control Device	Atm	Atm	Atm	Atm	Atm	Control Device	Atm	Atm	Control Device	Atm		
Control Efficiency						Control Efficiency			Control Efficiency			
Withdraw/Working	0.0006	0.0003	0.0003	0.0006	0.0006	Withdraw/Working			Withdraw/Working	1.28		
Standing/Breathing	0.0003	0.0000	0.0000	0.0000	0.0000	Standing/Breathing			Standing/Breathing	0.01		
VOC Emissions	0.0009	0.0003	0.0003	0.0006	0.0006	VOC Emissions			VOC Emissions	1.30		
CAS #	AB2588 No.	Diesel	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	Lube Oil	lb/hr	lb/hr	Methanol	lb/hr
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00					0.00E+00			0.00E+00	
75-15-0	75150	Carbon Disulfide	0.00E+00					0.00E+00			0.00E+00	
463-58-1	463581	Carbonyl Sulfide	0.00E+00					0.00E+00			0.00E+00	
100-41-4	100414	Ethylbenzene	1.00E-04	9.46E-08	3.20E-08	3.20E-08	5.71E-08	5.71E-08	0.00E+00		0.00E+00	
107-21-1	107211	Ethylene Glycol	0.00E+00					0.00E+00			0.00E+00	
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00					0.00E+00			0.00E+00	
108-88-3	108883	Toluene	3.00E-04	2.84E-07	9.60E-08	9.60E-08	1.71E-07	1.71E-07	0.00E+00		0.00E+00	
108-90-7	108907	Chlorobenzene	0.00E+00					0.00E+00			0.00E+00	
110-54-3	110543	Hexane (n)	0.00E+00					0.00E+00			0.00E+00	
110-82-7	110827	Cyclohexane	0.00E+00					0.00E+00			0.00E+00	
111-46-6	111466	Diethylene Glycol	0.00E+00					0.00E+00			0.00E+00	
111-76-2	111762	Glycol Ether EB	0.00E+00					0.00E+00			0.00E+00	
112-34-5	112345	Butyl Dioxitol	0.00E+00					0.00E+00			0.00E+00	
127-18-4	127184	Tetrachloroethene	0.00E+00					0.00E+00			0.00E+00	
1310-73-2	1310732	Sodium Hydroxide	0.00E+00					0.00E+00			0.00E+00	
1330-20-7	1330207	Xylenes (mixed isomers)	2.90E-03	2.74E-06	9.28E-07	9.28E-07	1.66E-06	1.66E-06	0.00E+00		0.00E+00	
95-47-6	95476	o-Xylene	0.00E+00					0.00E+00			0.00E+00	
50-00-0	50000	Formaldehyde	0.00E+00					0.00E+00			0.00E+00	
67-56-1	67561	Methyl Alcohol	0.00E+00					0.00E+00			1.00E+00	1.30E+00
67-63-0	67630	Isopropyl Alcohol	0.00E+00					0.00E+00			0.00E+00	
71-43-2	71432	Benzene	0.00E+00					0.00E+00			0.00E+00	
7664-41-7	7664417	Ammonia	0.00E+00					0.00E+00			0.00E+00	
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00					0.00E+00			0.00E+00	
91-20-3	91203	Naphthalene	0.00E+00					0.00E+00			0.00E+00	
95-63-6	95636	Trimethylbenzene (1,2,4)	1.00E-02	9.46E-06	3.20E-06	3.20E-06	5.71E-06	5.71E-06	0.00E+00		0.00E+00	

Notes:

Small diesel tanks: Estimated max hourly throughput based on max hourly fuel consumption of the IC engines associated with the tanks. Annual throughput based on the total fuel used by the associated engine.
Methanol tank: estimated max hourly throughput based on the max volumed delivered on a given day in 2013.
Methanol tank emissions based on ideal gas law. See SCAQMD Small Fixed Roof Tank calculation methodology.

Tanks
Exxon - SYU

Exxon - SYU

Control Efficiencies:

Atm	0.00
VRS	0.998
VRS-Short	0.95
Carbon	0.75

Device Desc	Demulsifier Tote Tank 1	Demulsifier Tote Tank 2	Device Desc	Oil Storage Tank A	Oil Storage Tank B	Device Desc	Rerun Tank A	Rerun Tank B
Device ID	114021	114022	Device ID	234011	234012	Device ID	214011	214012
Location	LFC	LFC	Location	LFC	LFC	Location	LFC	LFC
TYPE	FRT	FRT	TYPE	FRT	FRT	TYPE	FRT	FRT
SERVICE	Demulsifier	Demulsifier	SERVICE	LFC-7	LFC-7	SERVICE	LFC-1	LFC-1
Speciation	Demulsifier	Demulsifier	Speciation	Stabilized Crude	Stabilized Crude	Speciation	Crude Oil Emulsion	Crude Oil Emulsion
Diameter (ft)	5.08		Diameter (ft)			Diameter (ft)		
Height (ft)	5.38		Height (ft)			Height (ft)		
Throughput (Gallons)	2,157		Throughput (Gallons)	6,951,000	4,118,000	Throughput (Gallons)	3,157,000	3,157,000
Withdrawal/Working	1.66	1.66	Withdrawal/Working	30,300.37	17,950.93	Withdrawal/Working	13,761.80	13,761.80
Standing/Breathing	187.48	187.48	Standing/Breathing	61,490.70	61,490.70	Standing/Breathing	505,736.15	505,736.15
Uncontrolled VOC (lb/yr)	189.14	189.14	Uncontrolled VOC (lb/yr)	91,791.07	79,441.63	Uncontrolled VOC (lb/yr)	519,497.95	519,497.95
Control Device	Atm	Atm	Control Device	VRS	VRS	Control Device	VRS	VRS
Control Efficiency			Control Efficiency	99.8%	99.8%	Control Efficiency	99.8%	99.8%
Withdrawal/Working	1.66	1.66	Withdrawal/Working	60.60	35.90	Withdrawal/Working	27.52	27.52
Standing/Breathing	187.48	187.48	Standing/Breathing	122.98	122.98	Standing/Breathing	1011.47	1011.47
VOC Emissions	189.14	189.14	VOC Emissions	183.58	158.88	VOC Emissions	1039.00	1039.00
CAS #	AB2588 No.		Demulsifier	lb/yr	lb/yr	LFC-7	lb/yr	lb/yr
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00			0.00E+00	3.29E-05	3.42E-02
75-15-0	75150	Carbon Disulfide	0.00E+00			0.00E+00		3.42E-02
463-58-1	463581	Carbonyl Sulfide	0.00E+00			0.00E+00		
100-41-4	100414	Ethylbenzene	5.00E-02	9.46E+00	9.46E+00	9.13E-04	1.68E-01	1.45E-01
107-21-1	107211	Ethylene Glycol	0.00E+00			0.00E+00		
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00			0.00E+00		
108-88-3	108883	Toluene	0.00E+00			1.79E-03	3.29E-01	2.84E-01
108-90-7	108907	Chlorobenzene	0.00E+00			0.00E+00	2.77E-06	2.87E-03
110-54-3	110543	Hexane (n)	0.00E+00			0.00E+00		2.87E-03
110-82-7	110827	Cyclohexane	0.00E+00			1.74E-03	3.20E-01	2.77E-01
111-46-6	111466	Diethylene Glycol	0.00E+00			0.00E+00	1.24E-06	1.28E-03
111-76-2	111762	Glycol Ether EB	0.00E+00			0.00E+00		
112-34-5	112345	Butyl Dioxitol	0.00E+00			0.00E+00		
127-18-4	127184	Tetrachloroethene	0.00E+00			0.00E+00		
1310-73-2	1310732	Sodium Hydroxide	0.00E+00			0.00E+00		
1330-20-7	1330207	Xylenes (mixed isomers)	5.00E-02	9.46E+00	9.46E+00	1.18E-03	2.17E-01	1.87E-01
95-47-6	95476	o-Xylene	0.00E+00			6.41E-04	1.18E-01	1.02E-01
50-00-0	50000	Formaldehyde	0.00E+00			0.00E+00	1.50E-06	1.56E-03
67-56-1	67561	Methyl Alcohol	1.00E-01	1.89E+01	1.89E+01	1.00E-05	9.46E-07	9.83E-04
67-63-0	67630	Isopropyl Alcohol	0.00E+00			0.00E+00	4.67E-05	4.85E-02
71-43-2	71432	Benzene	0.00E+00			8.71E-04	1.60E-01	1.38E-01
7664-41-7	7664417	Ammonia	0.00E+00			0.00E+00	2.75E-06	2.86E-03
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00			0.00E+00		
91-20-3	91203	Naphthalene	5.00E-02	9.46E+00	9.46E+00	2.69E-04	5.00E-07	5.20E-04
95-63-6	95636	Trimethylbenzene (1,2,4)	1.00E-02	1.89E+00	1.89E+00	5.03E-04	8.40E-07	8.73E-04

Tanks
Exxon - SYU

Device Desc	Demulsifier Tote Tank 1	Demulsifier Tote Tank 2	Device Desc	Oil Storage Tank A	Oil Storage Tank B	Device Desc	Rerun Tank A	Rerun Tank B			
Device ID	114021	114022	Device ID	234011	234012	Device ID	214011	214012			
Location	LFC	LFC	Location	LFC	LFC	Location	LFC	LFC			
TYPE	FRT	FRT	TYPE	FRT	FRT	TYPE	FRT	FRT			
SERVICE	Demulsifier	Demulsifier	SERVICE	LFC-7	LFC-7	SERVICE	LFC-1	LFC-1			
Speciation	Demulsifier	Demulsifier	Speciation	Stabilized Crude	Stabilized Crude	Speciation	Crude Oil Emulsion	Crude Oil Emulsion			
Diameter (ft)	5.08		Diameter (ft)			Diameter (ft)					
Height (ft)	5.38		Height (ft)			Height (ft)					
Throughput (Gallons)			Throughput (Gallons)			Throughput (Gallons)					
Withdrawal/Working	0.15	0.15	Withdrawal/Working	1,067.99	1,067.99	Withdrawal/Working	1,067.99	1,067.99			
Standing/Breathing	0.04	0.04	Standing/Breathing	7.02	7.02	Standing/Breathing	57.73	57.73			
Uncontrolled VOC (lb/hr)	0.19	0.19	Uncontrolled VOC (lb/hr)	1,075.01	1,075.01	Uncontrolled VOC (lb/hr)	1,125.72	1,125.72			
Control Device	Atm	Atm	Control Device	VRS	VRS	Control Device	VRS	VRS			
Control Efficiency			Control Efficiency	99.8%	99.8%	Control Efficiency	99.8%	99.8%			
Withdrawal/Working	0.15	0.15	Withdrawal/Working	2.14	2.14	Withdrawal/Working	2.14	2.14			
Standing/Breathing	0.04	0.04	Standing/Breathing	0.01	0.01	Standing/Breathing	0.12	0.12			
VOC Emissions	0.19	0.19	VOC Emissions	2.15	2.15	VOC Emissions	2.25	2.25			
CAS #	AB2588 No.		Demulsifier	lb/hr	lb/hr	LFC-7	lb/hr	lb/hr	LFC-1	lb/hr	lb/hr
7783-06-4	7783064	Hydrogen Sulfide	0.00E+00			0.00E+00			3.29E-05	7.41E-05	7.41E-05
75-15-0	75150	Carbon Disulfide	0.00E+00			0.00E+00			0.00E+00		
463-58-1	463581	Carbonyl Sulfide	0.00E+00			0.00E+00			0.00E+00		
100-41-4	100414	Ethylbenzene	5.00E-02	9.57E-03	9.57E-03	9.13E-04	1.96E-03	1.96E-03	1.09E-06	2.45E-06	2.45E-06
107-21-1	107211	Ethylene Glycol	0.00E+00			0.00E+00			0.00E+00		
108-10-1	108101	Methyl Isobutyl Ketone	0.00E+00			0.00E+00			0.00E+00		
108-88-3	108883	Toluene	0.00E+00			1.79E-03	3.85E-03	3.85E-03	2.77E-06	6.23E-06	6.23E-06
108-90-7	108907	Chlorobenzene	0.00E+00			0.00E+00			0.00E+00		
110-54-3	110543	Hexane (n)	0.00E+00			0.00E+00			0.00E+00		
110-82-7	110827	Cyclohexane	0.00E+00			1.74E-03	3.75E-03	3.75E-03	1.24E-06	2.78E-06	2.78E-06
111-46-6	111466	Diethylene Glycol	0.00E+00			0.00E+00			0.00E+00		
111-76-2	111762	Glycol Ether EB	0.00E+00			0.00E+00			0.00E+00		
112-34-5	112345	Butyl Dioxitol	0.00E+00			0.00E+00			0.00E+00		
127-18-4	127184	Tetrachloroethene	0.00E+00			0.00E+00			0.00E+00		
1310-73-2	1310732	Sodium Hydroxide	0.00E+00			0.00E+00			0.00E+00		
1330-20-7	1330207	Xylenes (mixed isomers)	5.00E-02	9.57E-03	9.57E-03	1.18E-03	2.54E-03	2.54E-03	1.50E-06	3.38E-06	3.38E-06
95-47-6	95476	o-Xylene	0.00E+00			6.41E-04	1.38E-03	1.38E-03	9.46E-07	2.13E-06	2.13E-06
50-00-0	50000	Formaldehyde	0.00E+00			0.00E+00			0.00E+00		
67-56-1	67561	Methyl Alcohol	1.00E-01	1.91E-02	1.91E-02	1.00E-05	2.15E-05	2.15E-05	4.67E-05	1.05E-04	1.05E-04
67-63-0	67630	Isopropyl Alcohol	0.00E+00			0.00E+00			0.00E+00		
71-43-2	71432	Benzene	0.00E+00			8.71E-04	1.87E-03	1.87E-03	2.75E-06	6.19E-06	6.19E-06
7664-41-7	7664417	Ammonia	0.00E+00			0.00E+00			0.00E+00		
78-93-3	78933	Methyl Ethyl Ketone	0.00E+00			0.00E+00			0.00E+00		
91-20-3	91203	Naphthalene	5.00E-02	9.57E-03	9.57E-03	2.69E-04	5.79E-04	5.79E-04	5.00E-07	1.13E-06	1.13E-06
95-63-6	95636	Trimethylbenzene (1,2,4)	1.00E-02	1.91E-03	1.91E-03	5.03E-04	1.08E-03	1.08E-03	8.40E-07	1.89E-06	1.89E-06

Notes:
Small diesel tanks: Estimated max hourly throughput based on max hourly fuel con
Methanol tank: estimated max hourly throughput based on the max volumed deliv
Methanol tank emissions based on ideal gas law. See SCAQMD Small Fixed Roof T:

Tanks - VOC

FIXED ROOF TANK CALCULATION (AP-42: Chapter 7 Method)

Basic Input Data	Tank: ABJ-1401A		ABJ-1401B		
	Device ID			234012	
maximum ⁷ :	539	79	539	79	539
minimum ⁸ :	515.4	55.4	515.4	55.4	515.4
product factor ⁹ :		0.75		0.75	
diurnal vapor ranges					
temperature ¹⁰ (fahrenheit degrees):		47.2		47.2	
vapor pressure ¹¹ (psia):		2.269712		2.269712	
molecular weight ¹² (lb/lb-mol):		50		50	
TVP ¹³ (psia) [adjusted for ave liquid surface temp]:		5.51665		5.51665	
vapor density ¹⁴ (lb/cubic foot):		0.048756		0.048756	
vapor expansion factor ¹⁵ :		0.33		0.33	
vapor saturation factor ¹⁶ :		0.101128		0.101128	
vented vapor volume (scf/bbl):		8		8	
fraction ROG - flashing losses:		0.308		0.308	
fraction ROG - evaporative losses:		0.885		0.885	

Basic Input Data	Tank: ABJ-1401A			ABJ-1401B			
	Device ID		234011			234012	
Emissions	Uncontrolled ROC emissions			Uncontrolled ROC emissions			Uncor
		lb/hr	lb/day	ton/year	lb/hr	lb/day	ton/year
breathing loss ¹⁷	7.02	168.47	30.75	7.02	168.47	30.75	0.04
working loss ¹⁸	3.46	83.01	15.15	2.05	49.18	8.98	0.00
flashing loss ¹⁹							
TOTALS	10.48	251.48	45.90	9.07	217.65	39.72	0.04

Emissions	Controlled ROC emissions			Controlled ROC emissions			Cont
		lb/hr	lb/day	ton/year	lb/hr	lb/day	ton/year
breathing loss ¹⁷	0.35	8.42	0.06	0.35	8.42	0.06	0.00
working loss ¹⁸	0.17	4.15	0.03	0.10	2.46	0.02	0.00
flashing loss ¹⁹							
TOTALS	0.52	12.57	0.09	0.45	10.88	0.08	

Max Hourly Emission Estimate	ABJ-1401A		ABJ-1401B		ABJ-1402		
	Device ID		234012		114021		
Emissions	Uncontrolled ROC emissions			Uncontrolled ROC emissions			Uncor
		lb/hr	lb/day	ton/year	lb/hr	lb/day	ton/year
breathing loss ¹⁷	7.02			7.02			0.04

Tanks - VOC

FIXED ROOF TANK CALCULATION (AP-42: Chapter 7 Method)

Basic Input Data		Tank: ABJ-1401A		ABJ-1401B				
		Device ID	234011	234012	234012			
	working loss ¹⁸	1067.99		1067.99			0.15	
	flashing loss ¹⁹							
	TOTALS	1075.01		1075.01			0.19	
Emissions		Controlled ROC emissions			Controlled ROC emissions			Cont
		lb/hr		lb/hr			lb/hr	
	breathing loss ¹⁷	0.35		0.35			0.00	
	working loss ¹⁸	53.40		53.40			0.01	
	flashing loss ¹⁹							
	TOTALS	53.75		53.75			0.01	

NOTES: see attachment for explanation of notes (1 through 19)

Tanks - VOC

FIXED ROOF TANK CALCULATION (AP-42: Chapter 7 Method)

Basic Input Data	<i>Tank:</i>	ABJ-1401A
	<i>Device ID</i>	234011

	ABJ-1401B
	234012

--

Paint Factor Matrix		
paint color	paint condition	
	good	poor
spec alum	0.39	0.49
diff alum	0.60	0.68
lite grey	0.54	0.63
med grey	0.68	0.74
red	0.89	0.91
white	0.17	0.34

liquid	mol wt	TVP value	RVP value
gas rvp 13	62	7.908	13
gas rvp 10	66	5.56	10
gas rvp 7	68	3.932	7
crude oil	50	5.51665	7.289773466
96VZ056	80	0.81	2.7
JP -4	80	1.516	2.7
jet kerosene	130	0.0103	0.029
fuel oil 2	130	0.009488	0.022
fuel oil 6	190	0.0000472	0.00019

99.80%

Tanks - VOC

FIXED ROOF TANK CALCULATION (AP-42: Chapter 7 Method)

Basic Input Data

<i>Tank:</i>	ABJ-1401A
<i>Device ID</i>	234011

	ABJ-1401B
	234012

--

95.00%

Tanks - VOC

ABJ-1402	
114021	
5	
0.81	
100	
no	
yes	
no	
no	
0.06	

ABJ-3401A		
		214011
		4
		11
		110
		no
		110
		yes
		no
		no
		0.0542

ABJ-3401B	
214012	
	4
	11
	110
	no
	110
	yes
	no
	no
	0.0542

12	
12,600	
c	
19	
1	
9.5	
4	
1	

		200
254,591		10,692,822
	c	
		56
		11.46
		28
		4
		1

		200
254,591		10,692,822
	c	
		56
		11.46
		28
		4
		1

B	
55.00	
2157	
2.7	
21.47	

A	B
	140,000
245,000	3,157,000
	7.28977
	18.4

A	B
	140,000
245,000	3,157,000
	7.28977
	18.4

0.3	
1,108	
0.17	
1	
0.68	
67.2	

		3.8
		999,026
0.02		0.3
1		1
		0.68
527.2		67.2

		3.8
		999,026
0.02		0.3
1		1
		0.68
527.2		67.2

Oil Storage Tank A	234011	34011	3401
Oil Storage Tank B	234012	34012	3401
Rerun Tank A	214011	14011	1401
Rerun Tank B	214012	14012	1401

Tanks - VOC

ABJ-1402		ABJ-3401A		ABJ-3401B	
114021		214011		214012	
79		539	79	539	79
55.4		515.4	55.4	515.4	55.4
1.00			0.75		0.75
47.2			47.2		47.2
0.416324		2.269712		2.269712	
80			50		50
0.81		5.51665		5.51665	
0.011454		0.048756		0.048756	
0.115		0.331		0.331	
0.703871		0.097108		0.097108	
		8		8	
0.308		0.308		0.308	
1		0.885		0.885	

ABJ-1402		ABJ-3401A			ABJ-3401B		
114021		214011			214012		
Controlled ROC emissions		Uncontrolled ROC emissions			Uncontrolled ROC emissions		
lb/day	ton/year	lb/hr	lb/day	ton/year	lb/hr	lb/day	ton/year
1.03	0.19	57.73	1385.58	252.87	57.73	1385.58	252.87
0.01	0.00	1.57	37.70	6.88	1.57	37.70	6.88
1.04	0.19	59.30	1423.28	259.75	59.30	1423.28	259.75

Controlled ROC emissions		Controlled ROC emissions			Controlled ROC emissions		
lb/day	ton/year	lb/hr	lb/day	ton/year	lb/hr	lb/day	ton/year
0.05	0.00	2.89	69.28	0.51	2.89	69.28	0.51
0.00	0.00	0.08	1.89	0.01	0.08	1.89	0.01
0.05		2.97	71.16	0.52	2.97	71.16	0.52

ABJ-3401A		ABJ-3401B			ABJ-3401B		
214011		214012			214012		
Controlled ROC emissions		Uncontrolled ROC emissions			Uncontrolled ROC emissions		
lb/day	ton/year	lb/hr	lb/day	ton/year	lb/hr	lb/day	ton/year
		57.73			57.73		

Tanks - VOC

ABJ-1402		ABJ-3401A			ABJ-3401B		
114021		214011			214012		
		1067.99			1067.99		
		1125.72			1125.72		
Controlled ROC emissions		Controlled ROC emissions			Controlled ROC emissions		
		lb/hr			lb/hr		
		2.89			2.89		
		53.40			53.40		
		56.29			56.29		

Tanks - VOC

ABJ-1402
114021

ABJ-3401A
214011

ABJ-3401B
214012

Tanks - VOC

ABJ-1402
114021

ABJ-3401A
214011

ABJ-3401B
214012

Tanks - VOC

LFC	6951000
LFC	4118000
LFC	3157000
LFC	3157000

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

Tanks - VOC

**Truck Loading
Exxon - SYU**

Exxon - SYU

			Device Desc	Sulfur Loading (POPCO)
			Device ID	150160
			Location	Truck Loading Station
			Air Flow (scfm)	245
			H2S Conc. (ppmv)	69
			Sulfur Loading Rate (lb S/hr)	50540
CAS #	AB2588 No.		Sulfur Emission Rate (lb/min)	0.0015
7783-06-4	7783064	Hydrogen Sulfide	lb/hr	4.54E-02

			Device Desc	Sulfur Loading (POPCO)
			Device ID	150160
			Location	Truck Loading Station
			Air Flow (scfm)	245
			H2S Conc. (ppmv)	69
			Sulfur Loading Rate (lb S/min)	1670
			Sulfur Emission Rate (lb/min)	0.0015
CAS #	AB2588 No.		Sulfur Loaded (lbs/year)	4,336,640.00
7783-06-4	7783064	Hydrogen Sulfide	lb/year	3.90E+00

**Vents
Exxon - SYU**

					71-43-2
					Benzene
Device	Device ID	ROC (lb/hr)	Annual Hours of Operation	Speciation	lb/yr
SOV Distance Piece Vent -- Compressor A	113011	0.10	8760	757	2.84
SOV Distance Piece Vent -- Compressor B	113012	0.10	8760	757	2.84
SOV Distance Piece Vent -- Compressor C	113013	0.10	8760	757	2.84
VRU Distance Piece Vent -- Compressor A	113020	0.10	8760	757	2.84
VRU Distance Piece Vent -- Compressor B	113030	0.10	8760	757	2.84
Sludge Cake Pump A	113601		0	LFC-6	
Sludge Cake Pump B	113602		0	LFC-6	
Sludge Cake Pump C	113603		0	LFC-6	

					71-43-2
					Benzene
Device	Device ID	Control Efficiency		Speciation	lb/hr
SOV Distance Piece Vent -- Compressor A	113011			757	3.25E-04
SOV Distance Piece Vent -- Compressor B	113012			757	3.25E-04
SOV Distance Piece Vent -- Compressor C	113013			757	3.25E-04
VRU Distance Piece Vent -- Compressor A	113020			757	3.25E-04
VRU Distance Piece Vent -- Compressor B	113030			757	3.25E-04
Sludge Cake Pump A	113601			LFC-6	
Sludge Cake Pump B	113602			LFC-6	
Sludge Cake Pump C	113603			LFC-6	

Notes

The Sludge Cake Pumps a part of the waste transfer system are no longer in operation.
Benzene is the only air toxic on CARB's AB2588 list or OEHHA's Consolidated Table of Risk Assessment Health Values.

**Welding
Exxon - SYU**

Welding emissions calculations were double counting for the fume correction factors and fume generation rates. The District has corrected the formula to the approved method: Emissions= Ua (lb-rod/yr)* EF (lb-TAC/lb-rod). SDAPCD's EFs take into account fume correction factors and fume generation rates.

Device	Device ID	Lb Rod/Year	Speciation	18540-29-9	N090	7440-48-4	N450	N495	
				Hexavalent Chromium lb/yr	Chromium Compounds lb/yr	Cobalt lb/yr	Copper lb/yr	Manganese Compounds lb/yr	Nickel Compounds lb/yr
Maintenance Shop -- Welding -- SMAW	318021	60	E7018	2.17E-04	3.60E-04		0.00E+00	6.18E-02	1.20E-04
Maintenance Shop -- Welding -- TIG	#N/A	10	#N/A	0.00E+00	7.79E-05		2.73E-04	1.01E-03	8.20E-05

Device	Device ID	Lb Rod/hr	Speciation	18540-29-9	N090	7440-48-4	N450	N495	
				Hexavalent Chromium lb/hr	Chromium Compounds lb/hr	Cobalt lb/hr	Copper lb/hr	Manganese Compounds lb/hr	Nickel Compounds lb/hr
Maintenance Shop -- Welding -- SMAW	318021	1	E7018	3.61E-06	6.00E-06		0.00E+00	1.03E-03	2.00E-06
Maintenance Shop -- Welding -- TIG	#N/A	1	#N/A	0.00E+00	7.79E-06		2.73E-05	1.01E-04	8.20E-06

SMAW - E7018

Pollutant	CAS	EF (lb/lb rod)	EF Source	Weight Percent in Rod
TSP		0.0184	AP-42	
PM10		0.0184	AP-42	
Chromium, Nonhex	N090	0.000006	AP-42	
Chromium, Hex	18540-29-9	0.0000361	APCD	0.10%
Cobalt	7440-48-4	0	APCD	
Manganese	N450	0.00103	AP-42	1.50%
Nickel	N495	0.000002	AP-42	0.50%
Lead	N420	0	APCD	
Metals w/out EF		0	APCD	

TIG - ER 70S-6

Pollutant	CAS	EF (lb/lb rod)	EF Source	Weight Percent in Rod
TSP		0.0100	AP-42	
PM10		0.0100	AP-42	
Chromium, Nonhex	N090	7.7862E-06	APCD	0.15%
Chromium, Hex	18540-29-9	0	APCD	
Cobalt	7440-48-4	0	APCD	
Manganese	N450	0.000101084	APCD	1.85%
Nickel	N495	0.000008196	APCD	0.15%
Lead	N420	0	APCD	
Metals w/out EF:		0	APCD	
Carbon		0.000008196	APCD	0.15%
Copper		0.00002732	APCD	0.50%
Phosphorus		0.00001366	APCD	0.03%
Molybdenum		0.000008196	APCD	0.15%
Silicon		0.000062836	APCD	1.15%
Sulfur		1.9124E-06	APCD	0.04%
Vanadium		1.6392E-06	APCD	0.03%

Notes:

Weight Percent in Rod is as specified in the San Diego APCD Welding Calculation Methods specific to the type of welding, and rod selected.

TIG, ER 70S-6: https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Misc/EFT/Welding/APCD_TIG_Unspecified_Electrode.pdf

SMAW, E7018: https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Misc/EFT/Welding/APCD_SMAW_E7018.pdf

**Combustion Factors
Exxon - SYU**

Source			Diesel External Combustion	Diesel Internal Combustion		Natural Gas Internal Combustion		Natural Gas Ex. Combustion		Natural Gas Ex. Combustion		Natural Gas Thermal Oxidizer		Natural Gas Turbine
	AB 2588	CAS Number	Ventura APCD	EPA AP-42, VC APCD	Ventura APCD	Ventura APCD	Ventura APCD	Ventura APCD	Ventura APCD	Ventura APCD	Ventura APCD		EPA AP-42, Table 3.1-3	
Pollutant			Diesel External Combustion (lb/Mgal)	Diesel Internal Combustion < 600 bhp (lb/Mgal)	Diesel Internal Combustion > 600 bhp (lb/Mgal)	<10 MMBTU/hr (lbs/MMscf)	<10 MMBTU/hr (lbs/MMBtu)	10-100 MMBTU/hr (lbs/MMscf)	10-100 MMBTU/hr (lbs/MMBtu)	>100 MMBTU/hr (lbs/MMscf)	>100 MMBTU/hr (lbs/MMBtu)	Thermal Oxidizer (lb/MMscf)	Thermal Oxidizer (lb/MMscf)	Turbine (lbs/MMBtu)
1,3-Butadiene	106990	106-99-0	0.0148		0.2174		0.00E+00		0.00E+00		0.00E+00		0.00E+00	4.30E-07
Acetaldehyde	75070	75-07-0	0.3506	0.7833	0.7833	0.0043	4.10E-06	0.0031	2.95E-06	0.0009	8.57E-07	3.53E-05	3.53E-05	4.00E-05
Acrolein	107028	107-02-8	0.3506	0.0339	0.0339	0.0027	2.57E-06	0.0027	2.57E-06	0.0008	7.62E-07	8.20E-06	8.20E-06	6.40E-06
Arsenic Compounds	7440382	N020	0.0016	0.0016	0.0016		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Benzene	71432	71-43-2	0.0044	0.1863	0.1863	0.008	7.62E-06	0.0058	5.52E-06	0.0017	1.62E-06	1.30E-04	1.30E-04	1.20E-05
Cadmium Compounds	7440439	N078	0.0015	0.0015	0.0015		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Chlorobenzene	108907	108-90-7	0.0002	0.0002	0.0002		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Copper Compounds	7440508	N100	0.0041	0.0041	0.0041		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Diesel Particulate Matter	9901	9901												0.00E+00
Ethylbenzene	100414	100-41-4	0.0002	0.0109	0.0109		0.00E+00		0.00E+00		0.00E+00	1.18E-03	1.18E-03	3.20E-05
Formaldehyde	50000	50-00-0	0.3506	1.7261	1.7261	0.017	1.62E-05	0.0123	1.17E-05	0.0036	3.43E-06	9.58E-04	9.58E-04	7.10E-04
Hexane (-n)	110543	110-54-3	0.0035	0.0269	0.0269	0.0063	6.00E-06	0.0046	4.38E-06	0.0013	1.24E-06	2.38E-05	2.38E-05	
Hexavalent Chromium	18540299	18540-29-9	0.0001	0.0001	0.0001		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Hydrogen Chloride	7647010	7647-01-0	0.1863	0.1863	0.1863		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Lead Compounds	7439921	N420	0.0083	0.0083	0.0083		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Manganese Compounds	7439965	N450	0.0031	0.0031	0.0031		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Mercury Compounds	7439976	N458	0.002	0.0020	0.0020		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Naphthalene	91203	91-20-3	0.0053	0.0197	0.0197	0.0003	2.86E-07	0.0003	2.86E-07	0.0003	2.86E-07	9.02E-06	9.02E-06	1.30E-06
Nickel Compounds	7440020	N495	0.0039	0.0039	0.0039		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
PAHs, total, w/o individ. components reported [PA]	1151	1151	0.0445	0.0362	0.0362	0.0001	9.52E-08	0.0001	9.52E-08	0.0001	9.52E-08	2.46E-06	2.46E-06	2.20E-06
Propylene	115071	115-07-1	0.01	0.4670	0.4670	0.731	6.96E-04	0.53	5.05E-04	0.01553	1.48E-05	2.00E-03	2.00E-03	
Propylene Oxide	75569	75-56-9		0.0000	0.0000		0.00E+00		0.00E+00		0.00E+00		0.00E+00	2.90E-05
Selenium Compounds	7782492	N725	0.0022	0.0022	0.0022		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Toluene	108883	108-88-3	0.0044	0.1054	0.1054	0.0366	3.49E-05	0.0265	2.52E-05	0.0078	7.43E-06	4.76E-05	4.76E-05	1.30E-04
Chromium Compounds	7440473	N090	0.0006	0.0006	0.0006		0.00E+00		0.00E+00		0.00E+00		0.00E+00	
Xylenes (mixed isomers)	1330207	1330-20-7	0.0016	0.0424	0.0424	0.0272	2.59E-05	0.0197	1.88E-05	0.0058	5.52E-06	2.38E-05	2.38E-05	6.40E-05
Zinc Compounds	7440666	N982	0.0224	0.0224	0.0224		0.00E+00		0.00E+00		0.00E+00		0.00E+00	

Default HHV Valves	HHV	POPCO	LFC	Units
Natural Gas (POP-3, LFC-3)	1,050	1176.00	1219.67	Btu/scf
Tail gas/Off gas		30.96	11.57	Btu/scf
Propane	2,522			Btu/scf
Diesel	137,000			Btu/gal

F-Factors	F-Factor	POP Fuel Gas (POP-3)	LFC Fuel Gas (LFC-3)	Units
Natural Gas	8,710	8706.00	8694.00	dscf/MMBtu

Emission Factors

USEPA AP-42

HP Range	Model Year	Tier	Code	PM	PM10	Comments
All			T0	1.0	1.0	Older Engines
50-74	1998-2003	1	T1-1	1.0	1.0	
75-99	1998-2003	1	T1-2	1.0	1.0	
100-174	1997-2002	1	T1-3	1.0	1.0	
175-299	1996-2002	1	T1-4	0.4	0.4	
300-599	1996-2000	1	T1-5	0.4	0.4	
600-749	1996-2001	1	T1-6	0.4	0.4	
750>	2000-2005	1	T1-7	0.4	0.4	Except Generator Sets
750-1199	2000-2005	1	T1-GS-1	0.4	0.4	Generator Sets
1200>	2000-2005	1	T1-GS-2	0.4	0.4	Generator Sets
50-74	2004-2007	2	T2-1	0.3	0.3	
75-99	2004-2007	2	T2-2	0.3	0.3	
100-174	2003-2006	2	T2-3	0.22	0.22	
175-299	2003-2005	2	T2-4	0.15	0.15	
300-599	2001-2005	2	T2-5	0.15	0.15	
600-749	2002-2005	2	T2-6	0.15	0.15	
750>	2006-2010	2	T2-7	0.15	0.15	Except Generator Sets
750-1199	2006-2010	2	T2-GS-1	0.15	0.15	Generator Sets
1200>	2006-2010	2	T2-GS-2	0.15	0.15	Generator Sets
50-74	2008-2012	3	T3-1	0.3	0.3	
75-99	2008-2011	3	T3-2	0.3	0.3	
100-174	2007-2011	3	T3-3	0.22	0.22	
175-299	2006-2010	3	T3-4	0.15	0.15	
300-599	2006-2010	3	T3-5	0.15	0.15	
600-749	2006-2010	3	T3-6	0.15	0.15	

All emission factors in g/bhp-hr

**Paint Speciation
Exxon - SYU**

State:							95-63-6	100-41-4	108-65-6	110-43-0	78-93-3	108-88-3	1330-20-7	
							Liquid	Liquid	Liquid	Liquid	Liquid	Liquid	Liquid	
Brand	Paint Name	Usage	VOC (g/l)	VOC (lb/gal)	Thinner	Coating Category	Mix Ratio (volume basis)	Trimethylbenzene (1,2,4)	Ethylbenzene	Glycol Ether PM Acetate	Methyl Amyl Ketone	Methyl Ethyl Ketone	Toluene	Xylenes (mixed isomers)
Amercoat	PSX 700	Coating	84	0.7		Maintenance								
Carboline	Carboguard 890	Multi-Surface Coating	214	1.78		Mastic Texture Coating			0.05			0.05		0.15
Carboline	Carboguard 893	Metal Coating	195	1.6		Maintenance	1.00	0.00	0.01	0.05		0.05	0.05	0.05
Carboline	Carbomastic 15	Metal Coating	88	0.73	Thinner 76	Mastic Texture Coating	1.00	0.00	0.05	0.05		0.00	0.05	0.10
Carboline	Carbomastic 90	Metal Coating	84	0.7		Mastic Texture Coating								
Carboline	Carbothane 134 VOC	Architectural Coating	190	1.58		Maintenance	1.00	0.13	0.06	0.00		0.00	0.00	0.39
Carboline	Carboline Thinner #2	Thinner	850	7.09		Thinner	1.00	0.00	0.00	0.00		0.25	0.80	0.00
Carboline	Carboline Thinner #213	Thinner	825	6.88		Thinner	1.00		0.70				0.90	
Carboline	Carboline Thinner #214	Thinner	816	6.8		Thinner	1.00				1.00			
Carboline	Carboline Thinner #236 E	Thinner	0	0		Thinner	1.00							
Carboline	Carboline Thinner #76	Thinner	805	6.71		Thinner	1.00					1.00		
International	Enviroline 405HT	Coating	65	0.54		Maintenance			0.10					0.10

Notes:
PSX - No Listed air toxics
Carboline Thinner #236 E - No VOCs

State:							95-63-6	100-41-4	108-65-6	110-43-0	78-93-3	108-88-3	1330-20-7	
							Liquid	Liquid	Liquid	Liquid	Liquid	Liquid	Liquid	
Brand	Solvent Name	Usage	VOC (g/l)	Solvent Density (lb/gal)	% VOC by Wt	Photochem Reactive?	Mix Ratio (volume basis)	Trimethylbenzene (1,2,4)	Ethylbenzene	Glycol Ether PM Acetate	Methyl Amyl Ketone	Methyl Ethyl Ketone	Toluene	Xylenes (mixed isomers)
Carboline	Thinner #2	Thinner	850	7.09	100	No	1.00	0.00	0.00	0.00		0.25	0.80	0.00
Carboline	Thinner #213	Thinner	825	6.88	100	No			0.70				0.90	
Carboline	Thinner #214	Thinner	816	6.8	100	No					1.00			
Carboline	Thinner #236 E	Thinner	0	0										
Carboline	Thinner 76	Thinner	805	6.71	100	No						1.00		
	Mineral Spirits	Lab Usage	659	6.59	100	No	1.00	0.05						
	Toluene	Lab Usage	754	6.29	100	Yes	1.00						1.00	
	Xylene	Lab Usage	870	7.25	100	Yes	1.00							1.00

**Vapor Pressure
Exxon - SYU**

Produced Water System

Acids and Caustics

Pollutant	CAS Number	Vapor Pressure (mm Hg)	Henry's Law Constant	Vapor Pressure (mm Hg)		
				25 °C (77 °F)	50 °C (122 °F)	100 °C (212 °F)
1,3-butadiene	106-99-0					
acetaldehyde	75-07-0					
acrolein	107-02-8					
benzene	71-43-2	96	--			
Carbonyl Sulfide	463-58-1	--	1640			
chlorobenzene*	108-90-7					
Cumene	98-82-8	7	--			
Cyclohexane	110-82-7	98	--			
ethyl benzene	100-41-4	10	--			
formaldehyde	50-00-0					
hexane	110-54-3					
hydrogen chloride	7647-01-0					
Hydrogen Sulfide	7783-06-4	--	546			
naphthalene	91-20-3	< 1	--			
PAH (minus naphthalene)	N590					
propylene*	115-07-1					
toluene	108-88-3	24	--			
xylene	1330-20-7	9	--			
Water				23.7	92.5	760
Sodium Hydroxide	1310-73-2			0.03	0.07	0.1
Phosphoric Acid	7664-38-2			0.7	0.8	0.9
Hydrochloric Acid	7647-01-0			0.7	0.8	0.9
Hydrazine	302-01-2				14	

**Tank Factors
Exxon - SYU**

Appendix I - Properties and Parameters for Selected Materials

Product		Chemical Name	Service	CAS	Vapor		Liquid Density	Pva	Fp	Ke	Sa	Sb	Small Tank Loss Factors		
Category	Code				Mv	Wv	WL						f	a	b
Crude Oils	001	Crude Oil (RVP 5)	Crude Oil		50.0	0.02851	7.1000	3.1810	0.0610	0.0940	0.0843	0.0115	2.8630	0.3780	0.0840
Petroleum Dist.	002	Distillate Fuel Oil #2	Diesel		130.0	0.00018	7.1000	0.0077	0.0001	0.0340	0.0002	0.0000	0.0241	0.0009	0.0002
Petroleum Dist.	003	Residual Oil #6			190.0	0.00000	7.9000	0.0001	0.000001	0.0340	0.000001	0.000000	0.000241	0.000010	0.000001
Petroleum Dist.	004	Jet Naphtha (JP-4)	Jet Naphtha		80.0	0.02035	6.4000	1.4190	0.0250	0.0560	0.0376	0.0052	2.7250	0.1620	0.0380
Petroleum Dist.	005	Jet Kerosene	Jet Kerosene		130.0	0.00023	7.0000	0.0098	0.0002	0.0340	0.0003	0.0000	0.0306	0.0011	0.0003
Organic Liquids	090	Methyl Alcohol	Methanol	67561	32.0	0.00967	6.630	1.6860	0.030	0.075	0.045	0.006	1.296	0.103	0.045
Other Liquid	185	Ammonia	Ammonia	1336216	17.0	0.02745	7.49	8.9941	0.2323	0.535	0.2383	0.03265	3.676	2.084	0.23834
Organic Liquids	187	Ethylene Glycol	Ethylene Glycol	107211	62.1	0.00007	9.31	0.0063	0.0001	0.034	0.0002	0.00002	0.009	0.0003	0.00017
Organic Liquids		Demulsifier	Demulsifier				7.89								

Notes:

Tank Factors per South Coast AQMD Supplemental Instructions for Liquid Organic Storage Tanks, AER, December 2011

Speciation Table Exxon - SYU

					7783-06-4
Stream	Description	Location	Stream Properties		Hydrogen Sulfide
Stream	Description	Location	Molecular Weight lb/lb-mole	Density g/mL	34.08 wt. fract.
96	Surface Coating - Solvents				-
297	Crude Oil Evaporation - Vapor Composite FRT				-
532	Oil & gas extraction - well heads & cellars/oil&water separator				-
756	Oil and Gas Production Fugitives - Liquid Service				-
Caustic	Sodium Hydroxide				-
Corrosion Inhibitor	Corrosion Inhibitor				-
Demulsifier	Demulsifier			7.89	-
DGME	Butyl Dioxitol			7.97	-
Diesel	Fuel Oil #2			7.10	
LFC-1	Crude Oil Emulsion	Prior to Inlet Crude Heat Exchanger		1.04	3.29E-05
LFC-2	LFC Sour Gas	After Condensate Stabilization at OTP	31.60	1.09	1.09E-02
LFC-3	LFC Fuel Gas	After Fuel Gas Treating	20.25	0.70	6.40E-06
LFC-4	LFC Acid Gas	After Flexorb Unit, prior to Claus	38.66	1.34	3.75E-01
LFC-5	Wastewater	Inlet to Aeration Basin		1.03	1.08E-05
LFC-6	Treated Wastewater	Outlet of Clarifier		1.03	-
LFC-7	Stabilized Crude	After Crude Stabilizer Reboiler at Crude Pump	244.26	0.92	-
Methanol	Methanol	POPCO		6.63	
POP-1	POPCO Acid Gas	After Amine Stripper – Prior to Sulfur Unit	37.76	1.30	1.33E-01
POP-2	Rich Amine	After Low Pressure Amine Contactor		1.15	8.13E-05
POP-3	POPCO Fuel Gas	At existing B-801A/B sample point	20.34	0.70	8.14E-07
POP-4	Rich Glycol	After TEG Dehydration Unit		1.13	7.94E-04
POP-5	Natural Gas/Sales Gas	After Final Compression	19.83	0.69	2.63E-07
POP-6	NGL	After Slug Catcher (T101, T103 Composite)	44.88	0.10	3.67E-04
POP-7	POPCO Sour Gas	After Slug Catcher, prior to TEG Dehydration	20.64	0.71	1.44E-02
POP-8	Sour Water	Inlet to Sour Water Stripper		1.04	9.94E-08
POP-9	Stretford Solution	Outlet from Stretford Absorber Columns		1.20	-
Sulfur	Sulfur	POPCO			-
POP-10	Tail Gas	POPCO	33.87	1.43	5.58E-06

Speciation Table Exxon - SYU

Stream	Description	75-15-0	463-58-1	100-41-4	107-21-1	108-10-1	108-88-3
		Carbon Disulfide	Carbonyl Sulfide	Ethylbenzene	Ethylene Glycol	Methyl Isobutyl Ketone	Toluene
		76.14	60.07	106.17	62.07	-	92.14
Stream	Description	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.
96	Surface Coating - Solvents	-	-	-	-	0.0500	0.0400
297	Crude Oil Evaporation - Vapor Composite FRT	-	-	-	-	-	0.0140
532	Oil & gas extraction - well heads & cellars/oil&water separator	-	-	-	-	-	0.0100
756	Oil and Gas Production Fugitives - Liquid Service	-	-	-	-	-	-
Caustic	Sodium Hydroxide	-	-	-	-	-	-
Corrosion Inhibitor	Corrosion Inhibitor	-	-	0.1000	-	-	-
Demulsifier	Demulsifier	-	-	0.0500	-	-	-
DGME	Butyl Dioxitol	-	-	-	-	-	-
Diesel	Fuel Oil #2	-	-	0.0001	-	-	0.0003
LFC-1	Crude Oil Emulsion	-	-	1.09E-06	-	-	2.77E-06
LFC-2	LFC Sour Gas	-	-	-	-	-	-
LFC-3	LFC Fuel Gas	-	-	3.40E-07	-	-	1.08E-05
LFC-4	LFC Acid Gas	-	-	5.33E-05	-	-	2.69E-04
LFC-5	Wastewater	-	-	2.02E-08	-	-	1.60E-07
LFC-6	Treated Wastewater	-	-	-	-	-	-
LFC-7	Stabilized Crude	-	-	9.13E-04	-	-	1.79E-03
Methanol	Methanol	-	-	-	-	-	-
POP-1	POPCO Acid Gas	-	-	1.73E-05	-	-	1.25E-04
POP-2	Rich Amine	-	-	-	-	-	3.83E-06
POP-3	POPCO Fuel Gas	-	3.70E-06	1.49E-05	-	-	1.65E-04
POP-4	Rich Glycol	-	-	1.36E-04	5.08E-05	-	5.93E-04
POP-5	Natural Gas/Sales Gas	-	1.84E-06	2.92E-07	-	-	5.14E-06
POP-6	NGL	8.20E-04	6.43E-04	4.02E-04	-	-	3.52E-03
POP-7	POPCO Sour Gas	-	-	1.89E-05	-	-	1.11E-04
POP-8	Sour Water	-	-	-	-	-	-
POP-9	Stretford Solution	1.07E-07	-	-	-	-	-
Sulfur	Sulfur	-	-	-	-	-	-
POP-10	Tail Gas	3.17E-07	1.48E-04	-	-	-	-

Speciation Table Exxon - SYU

		108-90-7	110-54-3	110-82-7	111-46-6	112-27-6	111-76-2	112-34-5
Stream	Description	Chlorobenzene	Hexane (-n)	Cyclohexane	Diethylene Glycol	Triethylene Glycol	Ethylene Glycol Monobutyl Ether	Butyl Dioxitol
		112.56	86.18	84.16	106.12	150.17	118.17	-
Stream	Description	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.
96	Surface Coating - Solvents	-	-	-	-	-	-	-
297	Crude Oil Evaporation - Vapor Composite FRT	-	0.0470	-	-	-	-	-
532	Oil & gas extraction - well heads & cellars/oil&water separator	-	0.0320	-	-	-	-	-
756	Oil and Gas Production Fugitives - Liquid Service	-	0.0990	-	-	-	-	-
Caustic	Sodium Hydroxide	-	-	-	-	-	-	-
Corrosion Inhibitor	Corrosion Inhibitor	-	-	-	-	-	-	-
Demulsifier	Demulsifier	-	-	-	-	-	-	-
DGME	Butyl Dioxitol	-	-	-	-	-	-	0.1000
Diesel	Fuel Oil #2	-	-	-	-	-	-	-
LFC-1	Crude Oil Emulsion	-	-	1.24E-06	-	-	-	-
LFC-2	LFC Sour Gas	-	-	-	-	-	-	-
LFC-3	LFC Fuel Gas	-	-	1.28E-04	-	-	-	-
LFC-4	LFC Acid Gas	-	-	8.21E-07	1.87E-06	-	-	-
LFC-5	Wastewater	-	-	-	-	-	-	-
LFC-6	Treated Wastewater	-	-	-	-	-	-	-
LFC-7	Stabilized Crude	-	-	1.74E-03	-	-	-	-
Methanol	Methanol	-	-	-	-	-	-	-
POP-1	POPCO Acid Gas	-	-	3.40E-05	-	-	-	-
POP-2	Rich Amine	-	-	-	-	-	-	-
POP-3	POPCO Fuel Gas	-	-	1.79E-04	-	-	-	-
POP-4	Rich Glycol	-	-	1.19E-04	1.81E-04	2.68E-03	-	-
POP-5	Natural Gas/Sales Gas	-	-	5.91E-05	-	6.09E-07	-	-
POP-6	NGL	-	-	1.23E-02	7.60E-05	7.91E-04	-	-
POP-7	POPCO Sour Gas	-	-	3.12E-04	-	-	-	-
POP-8	Sour Water	-	-	-	-	-	-	-
POP-9	Stretford Solution	-	-	-	-	-	-	-
Sulfur	Sulfur	-	-	-	-	-	-	-
POP-10	Tail Gas	-	-	-	-	-	-	-

Speciation Table Exxon - SYU

		127-18-4	1310-73-2	1330-20-7	95-47-6	50-00-0	67-56-1	67-63-0
Stream	Description	Tetrachloroethene	Sodium Hydroxide	m,p-Xylenes	o-Xylene	Formaldehyde	Methyl Alcohol	Isopropyl Alcohol
		165.83	40.00	106.16	106.16	30.03	32.04	60.10
Stream	Description	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.
96	Surface Coating - Solvents	0.1000	-	0.0400		-	0.0560	0.0570
297	Crude Oil Evaporation - Vapor Composite FRT	-	-	-		-	-	-
532	Oil & gas extraction - well heads & cellars/oil&water separator	-	-	-		-	-	-
756	Oil and Gas Production Fugitives - Liquid Service	-	-	-		-	-	-
Caustic	Sodium Hydroxide	-	0.0400	-		-	-	-
Corrosion Inhibitor	Corrosion Inhibitor	-	-	0.0500		-	-	0.3000
Demulsifier	Demulsifier	-	-	0.0500		-	0.1000	-
DGME	Butyl Dioxitol	-	-	-		-	-	-
Diesel	Fuel Oil #2			0.0029				
LFC-1	Crude Oil Emulsion	-	-	1.50E-06	9.46E-07	-	4.67E-05	-
LFC-2	LFC Sour Gas	-	-	-	-	-	-	-
LFC-3	LFC Fuel Gas	-	-	-	-	-	-	-
LFC-4	LFC Acid Gas	-	-	7.07E-05	7.33E-05	-	-	-
LFC-5	Wastewater	-	-	-	2.74E-08	-	-	-
LFC-6	Treated Wastewater	-	-	-	-	-	-	-
LFC-7	Stabilized Crude	-	-	1.18E-03	6.41E-04	-	1.00E-05	-
Methanol	Methanol						1.0000	
POP-1	POPCO Acid Gas	-	-	1.96E-05	9.49E-06	-	-	-
POP-2	Rich Amine	-	-	3.43E-07	-	-	-	-
POP-3	POPCO Fuel Gas	-	-	1.42E-05	2.84E-06	-	-	-
POP-4	Rich Glycol	-	-	1.21E-04	7.32E-05	-	-	-
POP-5	Natural Gas/Sales Gas	-	-	-	-	-	-	-
POP-6	NGL	-	-	3.13E-04	1.20E-04	-	-	-
POP-7	POPCO Sour Gas	-	-	2.06E-05	9.15E-06	-	-	-
POP-8	Sour Water	-	-	-	-	-	-	-
POP-9	Stretford Solution	-	--	-	-	-	-	-
Sulfur	Sulfur	-	-	-	-	-	-	-
POP-10	Tail Gas	-	-	-	-	-	-	-

Speciation Table Exxon - SYU

Stream	Description	71-43-2	7664-41-7	78-93-3	91-20-3	95-50-1	95-63-6	7782-50-5
		Benzene	Ammonia	Methyl Ethyl Ketone	Naphthalene	1,2 Dichlorobenzene	Trimethylbenzene (1,2,4)	Chlorine
Stream	Description	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.	wt. fract.
		78.11	17.03	72.11	128.17	-	120.19	70.91
96	Surface Coating - Solvents	-	-	0.1000	-	-	-	-
297	Crude Oil Evaporation - Vapor Composite FRT	0.0240	-	-	-	-	-	-
532	Oil & gas extraction - well heads & cellars/oil&water separator	0.0160	-	-	-	-	-	-
756	Oil and Gas Production Fugitives - Liquid Service	0.0010	-	-	-	-	-	-
Caustic	Sodium Hydroxide	-	-	-	-	-	-	-
Corrosion Inhibitor	Corrosion Inhibitor	-	-	-	0.0100	-	-	-
Demulsifier	Demulsifier	-	-	-	0.0500	-	0.0100	-
DGME	Butyl Dioxitol	-	-	-	-	-	-	-
Diesel	Fuel Oil #2	-	-	-	-	-	0.0100	-
LFC-1	Crude Oil Emulsion	2.75E-06	-	-	5.00E-07	-	8.40E-07	-
LFC-2	LFC Sour Gas	-	4.47E-07	-	-	-	-	-
LFC-3	LFC Fuel Gas	5.86E-05	-	-	-	-	-	-
LFC-4	LFC Acid Gas	2.75E-04	2.55E-05	-	5.98E-06	-	2.15E-05	-
LFC-5	Wastewater	4.69E-07	1.75E-04	-	1.85E-08	-	-	-
LFC-6	Treated Wastewater	-	1.34E-04	-	-	-	-	-
LFC-7	Stabilized Crude	8.71E-04	-	-	2.69E-04	-	5.03E-04	-
Methanol	Methanol	-	-	-	-	-	-	-
POP-1	POPCO Acid Gas	2.72E-04	1.53E-07	-	-	-	1.03E-06	-
POP-2	Rich Amine	1.20E-05	-	-	-	-	-	-
POP-3	POPCO Fuel Gas	3.51E-04	-	-	-	-	3.01E-07	-
POP-4	Rich Glycol	7.25E-04	-	-	1.70E-05	-	-	-
POP-5	Natural Gas/Sales Gas	2.05E-05	-	-	-	-	-	-
POP-6	NGL	7.39E-03	-	-	-	-	-	-
POP-7	POPCO Sour Gas	1.73E-04	4.02E-07	-	-	-	2.27E-06	-
POP-8	Sour Water	-	-	-	-	-	-	-
POP-9	Stretford Solution	-	-	-	-	-	-	-
Sulfur	Sulfur	-	-	-	-	-	-	-
POP-10	Tail Gas	-	-	-	-	-	-	-

Speciation Table Exxon - SYU

		98-82-8	
Stream	Description	Isopropyl Benzene	Comments
Stream	Description	wt. fract.	
96	Surface Coating - Solvents	-	CARB Speciation Profile
297	Crude Oil Evaporation - Vapor Composite FRT	-	CARB Speciation Profile
532	Oil & gas extraction - well heads & cellars/oil&water separator	-	CARB Speciation Profile
756	Oil and Gas Production Fugitives - Liquid Service	-	CARB Speciation Profile
Caustic	Sodium Hydroxide	-	MSDS
Corrosion Inhibitor	Corrosion Inhibitor	-	MSDS
Demulsifier	Demulsifier	-	MSDS
DGME	Butyl Dioxitol	-	MSDS
Diesel	Fuel Oil #2	-	SCAQMD
LFC-1	Crude Oil Emulsion	-	
LFC-2	LFC Sour Gas	-	
LFC-3	LFC Fuel Gas	-	
LFC-4	LFC Acid Gas	-	
LFC-5	Wastewater	-	
LFC-6	Treated Wastewater	-	
LFC-7	Stabilized Crude	-	
Methanol	Methanol	-	
POP-1	POPCO Acid Gas	-	
POP-2	Rich Amine	-	
POP-3	POPCO Fuel Gas	-	
POP-4	Rich Glycol	-	
POP-5	Natural Gas/Sales Gas	-	
POP-6	NGL	-	
POP-7	POPCO Sour Gas	-	
POP-8	Sour Water	-	
POP-9	Stretford Solution	-	
Sulfur	Sulfur	-	MSDS
POP-10	Tail Gas	-	Quarterly Stretford Data

Speciation Table 2006-2007 AER

Gas Stream	Description	Location	Stream Prop
Stream	Description	Location	Molecular Weight lb/lb-mole
LFC-2	LFC Sour Gas	After Condensate Stabilization at OTP	31.60
LFC-3	LFC Fuel Gas	After Fuel Gas Treating	20.25
LFC-4	LFC Acid Gas	After Flexsorb Unit, prior to Claus	38.66
POP-1	POPCO Acid Gas	After Amine Stripper – Prior to Sulfur Unit	37.76
POP-3	POPCO Fuel Gas	At existing B-801A/B sample point	20.34
POP-5	Natural Gas/Sales Gas	After Final Compression	19.83
POP-7	POPCO Sour Gas	After Slug Catcher, prior to TEG Dehydration	20.64
POP-10	POPCO Tail Gas	Stretford Unit	33.87

STOP

STOP

STOP

Liquid Stream	Description	Location	Stream Prop
Stream	Description	Location	Molecular Weight lb/lb-mole
LFC-1	Crude Oil Emulsion	Prior to Inlet Crude Heat Exchanger	
LFC-5	Wastewater	Inlet to Aeration Basin	
LFC-6	Treated Wastewater	Outlet of Clarifier	
POP-8	Sour Water	Inlet to Sour Water Stripper	

Speciation Table 2006-2007 AER

				TAC			
AB2588	AB2588	AB2588	AB2588	AB2588	AB2588	AB2588	AB2588
HRA	HRA	HRA		HRA		HRA	HRA

	7664-41-7	7783-06-4	75-15-0	463-58-1	71-43-2	110-82-7	100-41-4	108-88-3
erties	Ammonia	Hydrogen Sulfide	Carbon Disulfide	Carbonyl Sulfide	Benzene	Cyclohexane	Ethylbenzene	Toluene
Density	17.03	34.08	76.14	60.07	78.11	84.16	106.17	92.14
g/mL	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv
1.09	0.830	10,064.00						
0.70		3.80			15.20	30.7330	0.0648	2.3650
1.34	57.900	425,831.00			136.00	0.3770	19.4000	112.6670
1.30	0.340	146,994.00			131.33	15.2330	6.1500	51.2667
0.70		0.49		1.253	91.33	43.3330	2.8600	36.3330
0.69		0.15		0.607	5.19	13.9330	0.0545	1.1070
0.71	0.487	8,701.00			45.67	76.6000	3.6770	24.8330
1.43		5.54	0.14	83.53				
	STOP	STOP			STOP		STOP	

	7664-41-7	7783-06-4	75-15-0	463-58-1	71-43-2	110-82-7	100-41-4	108-88-3
erties	Ammonia	Hydrogen Sulfide	Carbon Disulfide	Carbonyl Sulfide	Benzene	Cyclohexane	Ethylbenzene	Toluene
Density	17.03	34.08	76.14	60.07	78.11	84.16	106.17	92.14
g/mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1.04		34.20			2.86	1.2850	1.1290	2.8740
1.03	180.330	11.13			0.48		0.0208	0.1650
1.03	138.667							
1.04		0.10						

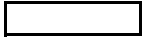
Speciation Table 2006-2007 AER

AB2588	AB2588	AB2588	AB2588	AB2588	AB2588		AB2588
HRA		HRA	HRA	HRA			HRA

107-21-1	111-46-6	1330-20-7	95-47-6	91-20-3	95-63-6	112-27-6	67-56-1	
Ethylene Glycol	Diethylene Glycol	m,p-Xylenes	o-Xylene	Naphthalene	Trimethylbenzene (1,2,4)	Triethylene Glycol	Methyl Alcohol	Comments
62.07 mg/L	106.12 mg/L	106.16 ppmv	106.16 ppmv	128.17 ppmv	120.19 ppmv	150.17 mg/L	32.04 g/g	
0.00	2.4972	25.7330	26.7000	1.8030	6.9000			DEG -Applied 1/2 Detection limit
		6.9870	3.3770		0.3250			
		2.7230	0.5440		0.0510			
						0.42		TEG -Applied 1/2 Detection limit
		4.0100	1.7800		0.3900			Quarterly Stretford Samples
STOP	STOP	STOP	STOP	STOP	STOP			

107-21-1	111-46-6	1330-20-7	95-47-6	91-20-3	95-63-6	112-27-6	67-56-1	
Ethylene Glycol	Diethylene Glycol	m,p-Xylenes	o-Xylene	Naphthalene	Trimethylbenzene (1,2,4)	Triethylene Glycol	Methyl Alcohol	Comments
62.07 mg/L	106.12 mg/L	106.16 mg/L	106.16 mg/L	128.17 mg/L	120.19 mg/L	150.17 mg/L	32.04 wt. fract.	
		1.5600	0.9830	0.5200	0.8730		0.00004667	
			0.0282	0.0190				

Speciation Table 2006-2007 AER



STOP

STOP
STOP
STOP

STOP
STOP
STOP

STOP
STOP

STOP

STOP

STOP
STOP
STOP
STOP
STOP

Speciation Table 2006-2007 AER

POP-9	Stretford Solution	Outlet from Stretford Absorber Columns	
STOP	STOP	STOP	

Liquid Stream	Description	Location	Stream Prop
Stream	Description	Location	Molecular Weight lb/lb-mole
LFC-7	Stabilized Crude	After Crude Stabilizer Reboiler at Crude Pump	244.26
POP-2	Rich Amine	After Low Pressure Amine Contactor	
POP-4	Rich Glycol	After TEG Dehydration Unit	
POP-6	NGL	After Slug Catcher (T101, T103 Composite)	44.88
STOP	STOP	STOP	

Notes

Non-Detect			
------------	--	--	--

LFC-7

Specific Gravity	9.46E-01
Molecular Weight	244.26

LFC-7 Molecular Weight calculated from 2013 API data

POP-6

Specific Gravity	5.88E-01
Kw (Watson Characterization)	1.27E+01
Molecular Weight	44.88

POP-6 Molecular weight calc from 2013 specific gravity data

Speciation Table 2006-2007 AER

1.20	STOP	STOP	0.129	STOP	STOP	STOP	STOP	
	7664-41-7	7783-06-4	75-15-0	463-58-1	71-43-2	110-82-7	100-41-4	108-88-3
Properties	Ammonia	Hydrogen Sulfide	Carbon Disulfide	Carbonyl Sulfide	Benzene	Cyclohexane	Ethylbenzene	Toluene
Density	17.03	34.08	76.14	60.07	78.11	84.16	106.17	92.14
g/mL	mg/L	mg/L	mg/L	mg/L	ug/kg	ug/kg	ug/kg	ug/kg
0.92		0			871,000	1,743,333	912,667	1,790,000
1.15		93.50			12,033			3,830
1.13		901.34			725,000.00	119,000.00	136,333.00	593,000.00
1.03E-01		0.367	0.820	0.643	7,387,667	12,291,333	402,333	3,522,000
	STOP	STOP			STOP		STOP	

Units:

Liquid Stream				Molecular Weight	Density	Ammonia	Benzene
					g/mL	mg/L	ug/g
POP-6	NGL						7,388

Speciation Table 2006-2007 AER

STOP	STOP	STOP	STOP	STOP	STOP		
------	------	------	------	------	------	--	--

107-21-1	111-46-6	1330-20-7	95-47-6	91-20-3	95-63-6	112-27-6	67-56-1	
Ethylene Glycol	Diethylene Glycol	m,p-Xylenes	o-Xylene	Naphthalene	Trimethylbenzene (1,2,4)	Triethylene Glycol	Methyl Alcohol	Comments
62.07 mg/L	106.12 mg/L	106.16 ug/kg	106.16 ug/kg	128.17 ug/kg	120.19 ug/kg	150.17 mg/L	32.04 wt. fract.	
		1,180,000	641,000	269,333	503,000		0.000010	MW per SYU API data
		343.00						
57.64	205.46	120,666.67	73,166.67	17,000.00		3,043.24		
	7.8147	313,000	120,333			81.3200	0.00	H2S in mg/g
STOP	STOP	STOP	STOP	STOP	STOP			

Cyclohexane	Toluene	Ethylbenzene	m&p Xylene	o-Xylene	1,2,4-TMB	Naphthalene	Methanol	EG
ug/g	ug/g	ug/g	ug/g	ug/g	ug/g	ug/g	ug/g	ug/ml
12,291	3,522	402	313	120	ND	ND	ND	ü

Speciation Table 2006-2007 AER

STOP

STOP

STOP

STOP
STOP
STOP
STOP

DEG	TEG	Hydrogen Sulfide
ug/ml	ug/ml	mg/g
ü	ü	0.367

Weight Fraction

MSDS			Toluene	Ethyl Benzene	Xylenes (mixed)	Biphenyl	Cumene	DGME	Hydrochloric Acid	Isopropyl Alcohol	Methanol	Naphthalene	Phosphoric Acid	Sodium Hydroxide	1,2,4-Trimethylbenzene
AB2588 Number			108883	100414	1330207	92524	98828	112345	7647010	67630	67561	91203	7664382	1310732	95636
CAS #	Stream	Description	108-88-3	100-41-4	1330-20-7	92-52-4	98-82-8	112-34-5	7647-01-0	67-63-0	67-56-1	91-20-3	7664-38-2	1310-73-2	95-63-6
Caustic	Sodium Hydroxide (25%)	Sodium Hydroxide (25%)												20%	
	Hydrochloric Acid	Hydrochloric Acid							38%						
	Phosphoric Acid	Phosphoric Acid											85%		
	DGME	DGME						10%							
	Caustic	Sodium Hydroxide (4%)												4%	
	Corrosion Inhibitor	Corrosion Inhibitor		10%	5%					30%		1%			
	Demulsifier	Demulsifier		5%	5%						10%	5%			1%
	Diesel	Diesel	0.10%	0.05%	0.26%	0.34%	0.02%					0.39%			0.38%
	Lube Oil	Lube Oil													
	Sulfur	Sulfur													

Notes:

Weight fraction per current MSDS of products used by Exxon - SYU.

OEHHA/CAR AB2588: B HRA Values:		chemname	AB2588 No.	AB2588 Appendix	CAS #
		2,4 dimethylphenol	105679	A-II	105-67-9
		methanol	67561	A-I	67-56-1
		isopropyl alcohol	67630	A-I	67-63-0
		n-butyl alcohol	71363	A-I	71-36-3
		benzene	71432	A-I	71-43-2
		methyl ethyl ketone {2-butanone}	78933	A-I	78-93-3
		methyl methacrylate	80626	A-I	80-62-6
		naphthalene	91203	A-I	91-20-3
		2-methyl naphthalene	91576	A-I	91-57-6
		o-xylene	95476	A-I	95-47-6
		1,2-dichlorobenzene	95501	A-I	95-50-1
		trimethylbenzenes	95636	A-I	95-63-6
		cumene	98828	A-I	98-82-8
		ethyl benzene	100414	A-I	100-41-4
		styrene	100425	A-I	100-42-5
		p-xylene	106423	A-I	106-42-3
		ethylene glycol	107211	A-I	107-21-1
		methyl isobutyl ketone {hexone}	108101	A-I	108-10-1
		Glycol Ether PM Acetate	108656	A-I	108-65-6
		toluene	108883	A-I	108-88-3
		chlorobenzene	108907	A-I	108-90-7
		Phenol	108952	A-I	108-95-2
		Ethylene Glycol Monomethyl Ether	109864	A-I	109-86-4
		hexane	110543	A-I	110-54-3
		Ethylene Glycol Monoethyl Ether	110805	A-I	110-80-5
		cyclohexane	110827	A-I	110-82-7
		Diethylene Glycol	111466	A-I	111-46-6
		ethylene glycol monobutyl ether	111762	A-I	111-76-2
		Butyl Dioxitol	112345	A-I	112-34-5
		Propylene	115071	A-I	115-07-1
		1,4-Dioxane	123911	A-I	123-91-1
		perchloroethylene {tetrachloroethene}	127184	A-I	127-18-4
		xylene (mixed)	1330207	A-I	1330-20-7
		propylene glycol	57556		57-55-6
		ethyl alcohol	64175		64-17-5
		methane	74828		74-82-8
		ethane	74840		74-84-0
		propane	74986		74-98-6
		isobutane	75285		75-28-5
		2-furfural	98011		
		n-butane	106978		106-97-8
		2,4-dimethylpentane	108087		108-08-7
		methylcyclohexane	108872		108-87-2

	propyl acetate	109604		109-60-4
	n-pentane	109660		109-66-0
	n-butyl acetate	123864		123-86-4
	isomers of decane	124185		124-18-5
	(1-methylpropyl)benzene	135988		135-98-8
	ethyl acetate	141786		141-78-6
	isomers of heptane	142825		
	n-heptane	142825		
	cis-decalin	493016		
	indan	496117		
	1,2,3-trimethylbenzene	526738		
	1,2,3,5-tetramethylbenzene	527537		
	1-methyl-3-isopropylbenzene	535773		
	2,3-dimethylpentane	565593		
	2,3,4-trimethylpentane	565753		
	3,4-dimethylhexane	583482		
	2,3-dimethylhexane	584941		
	3-methylhexane	589344		
	2,4-dimethylhexane	589435		
	4-methylheptane	589537		
	3-methylheptane	589811		
	1,1-dimethylcyclohexane	590669		
	2-methylhexane	591764		
	2,5-dimethylhexane	592132		
	2-methylheptane	592278		
	2-methyl-3-ethylpentane	609267		
	1-methyl-2-ethylbenzene	611143		
	3-ethylhexane	619998		
	1-methyl-3-ethylbenzene	620144		
	1-methyl-4-ethylbenzene	622968		
	cis-1,4-dimethylcyclohexane	624293		
	n-tridecane	629505		
	cis-1,3-dimethylcyclohexane	638040		
	cis-bicyclo[3.3.0]octane	694724		
	isopropylcyclohexane	696297		
	1-methylindan	767588		
	4-methylindan	824226		
	2-methylnonane	871830		
	5-methylindan	874351		
	1,3-dimethyl-4-ethylbenzene	874419		
	cis-1-ethyl-2-methylcyclopentane	930892		
	1,3-dimethyl-5-ethylbenzene	934747		
	1,2-dimethyl-4-ethylbenzene	934805		
	ethylcyclopentane	1640897		
	ethylcyclohexane	1678917		
	trans-1,3-dimethylcyclohexane	2207036		
	2-methyl-3-hexanone	7379126		
	creosote	8001589		
	heptanone	29299432		
	trimethylcyclohexane	30498636		
	trimethylcyclopentane	30498647		
	c7 cycloparaffins			
	c8 cycloparaffins			
	c9 dialkyl benzenes			

		dimethylheptanes			
		isomers of hexane			
		isomers of nonane			
		isomers of octane			
		isomers of pentane			
		isomers of undecane			
		methyl heptene			
		TOC FROG			

Non-Methane/Non-ethane FROG

FROG

TOC Weight Fraction

	Surface Coating - Solvents	Crude Oil Evaporation - Vapor Composite FRT	Oil & gas extraction - well heads & cellars/oil&water separator	Oil and Gas Production Fugitives - Liquid Service	Oil and Gas Production Fugitives - Gas Service
MW (lb/lb-mol)	96	297	532	756	757
	0.056				
	0.057				
		0.024	0.016	0.001	0.001
	0.1				
	0.05				
	0.04	0.014	0.01		
		0.047	0.032		
	0.1				
	0.04				
	0.056				
		0.088	0.375	0.376	0.613
		0.027	0.019	0.064	0.079
		0.161	0.11	0.101	0.07
		0.093	0.064	0.004	0.002
		0.208	0.142	0.074	0.043

		0.051	0.035	0.099	0.052
	0.109				
	0.004	0.004	0.003	0.087	0.046
		0.112	0.077	0.056	0.021
	0.01				
	0.900	1.000	1.000	1.000	1.000

	0.800	1.000	1.000	1.000	1.000
--	--------------	--------------	--------------	--------------	--------------

Industrial Surface Coating - Solvent Based Paint	Organic Solvent Evaporation - General	Thinning Solvent/Mineral Spirits
783	1447	1930
		0
		0.0037
		0.0002
0.0051		0.0001
	0.125	
		0.0025
		0.0004
0.0445		0.0032
	0.125	
0.001		0.0138
		0.0024
0.0051		0.0043
		0.0002
		0.0035
	0.125	
0.003		0.0003
0.3822		0.0415
	0.125	
	0.125	
0.0051		0.0016
0.0647		0.0048
0.0374		
	0.125	
		0.0237
	0.125	
0.0172		0.0008
0.0364		0.098

chemname
methanol
isopropyl alcohol
n-butyl alcohol
benzene
methyl ethyl ketone {2-butanone}
methyl methacrylate
naphthalene
2-methyl naphthalene
o-xylene
1,2-dichlorobenzene
trimethylbenzenes
cumene
ethyl benzene
styrene
p-xylene
ethylene glycol
methyl isobutyl ketone {hexone}
toluene
chlorobenzene
phenol
hexane
cyclohexane
ethylene glycol monobutyl ether
perchloroethylene {tetrachloroethene}
xylene (mixed)
propylene glycol
ethyl alcohol
methane
ethane
propane
isobutane
2-furfural
n-butane
2,4-dimethylpentane
methylcyclohexane

0.0061		
0.0273		
0.001		
0.988	1.000	0.468

0.983	0.875
--------------	--------------

c9 dialkyl benzenes
dimethylheptanes
isomers of hexane
isomers of nonane
isomers of octane
isomers of pentane
isomers of undecane
methyl heptene
FROG
FROG

--

trimethylbenzenes

Non-Methane, Non-Ethane Weight Fraction

		Surface Coating - Solvents	Crude Oil Evaporation - Vapor Composite FRT	Oil & gas extraction - well heads & cellars/oil&water separator	Oil and Gas Production Fugitives - Liquid Service
cas	MW (lb/lb-r)	96	297	532	756
67561		0.07000	-	-	-
67630		0.07125	-	-	-
71363		-	-	-	-
71432		-	0.02400	0.01600	0.00100
78933		0.12500	-	-	-
80626		-	-	-	-
91203		-	-	-	-
91576		-	-	-	-
95476		-	-	-	-
95501		-	-	-	-
95636		-	-	-	-
98828		-	-	-	-
100414		-	-	-	-
100425		-	-	-	-
106423		-	-	-	-
107211		-	-	-	-
108101		0.06250	-	-	-
		-	-	-	-
108883		0.05000	0.01400	0.01000	-
108907		-	-	-	-
108952		-	-	-	-
		-	-	-	-
110543		-	0.04700	0.03200	-
		-	-	-	-
110827		-	-	-	-
		-	-	-	-
111762		-	-	-	-
		-	-	-	-
		-	-	-	-
		-	-	-	-
127184		0.12500	-	-	-
1330207		0.05000	-	-	-
57556		-	-	-	-
64175		0.07000	-	-	-
74828					
74840					
74986		-	0.16100	0.11000	0.10100
75285		-	0.09300	0.06400	0.00400
98011		-	-	-	-
106978		-	0.20800	0.14200	0.07400
108087		-	-	-	-
108872		-	-	-	-

		-	-	-	-
		-	0.05100	0.03500	0.09900
		0.13625	-	-	-
		0.00500	0.00400	0.00300	0.08700
		-	0.11200	0.07700	0.05600
		0.01250	-	-	-
		-	-	-	-
		#REF!	#REF!	#REF!	#REF!
		#REF!	#REF!	#REF!	#REF!

25551137

Oil and Gas Production Fugitives - Gas Service	Industrial Surface Coating - Solvent Based Paint	Organic Solvent Evaporation - General	Thinning Solvent/Mineral Spirits
757	783	1447	1930
-	-	-	#REF!
-	-	-	#REF!
-	-	-	#REF!
0.00100	-	-	#REF!
-	0.00519	-	#REF!
-	-	0.14286	#REF!
-	-	-	#REF!
-	-	-	#REF!
-	0.04528	-	#REF!
-	-	0.14286	#REF!
-	0.00102	-	#REF!
-	-	-	#REF!
-	0.00519	-	#REF!
-	-	-	#REF!
-	-	-	#REF!
-	-	0.14286	#REF!
-	0.00305	-	#REF!
-	-	-	#REF!
-	0.38889	-	#REF!
-	-	0.14286	#REF!
-	-	0.14286	#REF!
-	-	-	#REF!
-	-	-	#REF!
-	-	-	#REF!
-	0.00519	-	#REF!
-	-	-	#REF!
-	0.06583	-	#REF!
-	-	-	#REF!
-	-	-	#REF!
-	-	-	#REF!
-	-	-	#REF!
-	0.03805	-	#REF!
-	-	0.14286	#REF!
-	-	-	#REF!
0.07000	-	-	#REF!
0.00200	-	-	#REF!
-	-	0.14286	#REF!
0.04300	-	-	#REF!
-	0.01750	-	#REF!
-	0.03704	-	#REF!

-	0.00621	-	#REF!
0.05200	-	-	#REF!
-	0.02778	-	#REF!
0.04600	-	-	#REF!
0.02100	-	-	#REF!
-	-	-	#REF!
-	0.00102	-	#REF!
#REF!	#REF!	#REF!	#REF!
#REF!	#REF!	#REF!	#REF!

orgprfcd	arbchem	chemname	cas	wtfracofto g	
1930	43302	ethyl alcohol	64175	0.0237	
1930	43305	n-butyl alcohol	71363	0.0002	A-I
1930	98132	isopentane	78784	0	
1930	43552	methyl ethyl ketone {2-butanone}	78933	0.0001	A-I
1930	91103	1,2,4,5-tetramethylbenzene	95932	0.0022	
1930	43262	methylcyclopentane	96377	0.0001	
1930	98043	cumene	98828	0.0024	A-I
1930	99088	1-methyl-4-isopropylcyclohexane	99821	0.0001	
1930	91094	1-methyl-4-isopropylbenzene	99876	0.0005	
1930	45220	styrene	100425	0.0002	A-I
1930	45206	p-xylene	106423	0.0035	A-I
1930	43560	methyl isobutyl ketone {hexone}	108101	0.0003	A-I
1930	45207	1,3,5-trimethylbenzene	108678	0.0012	
1930	43261	methylcyclohexane	108872	0.098	
1930	45202	toluene	108883	0.0415	A-I
1930	43233	n-octane	111659	0.0386	
1930	98074	ethylene glycol monobutyl ether	111762	0.0048	A-I
1930	43235	n-nonane	111842	0.0117	
1930	43435	n-butyl acetate	123864	0.0114	
1930	43232	n-heptane	142825	0.051	
1930	91106	5-methylindan	874351	0.0052	
1930	43301	methanol	67561	0.0037	A-I
1930	43551	[d] acetone [deleted/obsolete emittent id]	67641	0.0348	
1930	98046	naphthalene	91203	0.0025	A-I
1930	91123	2-methyl naphthalene	91576	0.0004	A-I
1930	45204	o-xylene	95476	0.0032	A-I
1930	45208	1,2,4-trimethylbenzene	95636	0.0138	A-I
1930	45203	ethyl benzene	100414	0.0043	A-I
1930	45209	n-propylbenzene	103651	0.0005	
1930	43271	2,4-dimethylpentane	108087	0.0008	
1930	45205	m-xylene	108383	0.0112	A-I

List of Compounds

CAS #	AB2588 No.	Compound	CAS #	State
1150	1150	PAHs, total, with individ. components also re	1150	Liquid
9901	9901	Diesel Particulate Matter	9901	Solid
7783-06-4	7783064	Hydrogen Sulfide	7783-06-4	Solid
100-41-4	100414	Ethylbenzene	100-41-4	Liquid
100-42-5	100425	Styrene	100-42-5	Liquid
103-65-1	103651	Propylbenzene	103-65-1	Liquid
105-67-9	105679	2,4 dimethylphenol	105-67-9	Liquid
106-42-3	106423	p-xylene	106-42-3	Liquid
106-44-5	106445	3/4 methylphenol (p-cresol)	106-44-5	Liquid
106-99-0	106990	1,3-Butadiene	106-99-0	Liquid
107-02-8	107028	Acrolein	107-02-8	Liquid
107-21-1	107211	Ethylene Glycol	107-21-1	Liquid
107-41-5	107415	Hexylene Glycol	107-41-5	Liquid
107-98-2	107982	Glycol Ether PM	107-98-2	Liquid
108-10-1	108101	Methyl Isobutyl Ketone	108-10-1	Liquid
108-20-3	108203	Isopropyl Ether	108-20-3	Liquid
108-65-6	108656	Glycol Ether PM Acetate	108-65-6	Liquid
108-67-8	108678	1,3,5 Trimethylbenzene	108-67-8	Liquid
108-88-3	108883	Toluene	108-88-3	Liquid
108-90-7	108907	Chlorobenzene	108-90-7	Liquid
108-95-2	108952	Phenol	108-95-2	Solid
109-86-4	109864	Ethylene Glycol Monomethyl Ether	109-86-4	Liquid
109-99-9	109999	Tetrahydrofuran	109-99-9	Liquid
110-19-0	110190	Isobutyl Acetate	110-19-0	Liquid
110-43-0	110430	Methyl Amyl Ketone	110-43-0	Liquid
110-54-3	110543	Hexane (-n)	110-54-3	Liquid
110-80-5	110805	Ethylene Glycol Monoethyl Ether	110-80-5	Liquid
110-82-7	110827	Cyclohexane	110-82-7	Liquid
111-46-6	111466	Diethylene Glycol	111-46-6	Liquid
111-65-9	111659	Octane (-n)	111-65-9	Liquid
111-76-2	111762	Glycol Ether EB	111-76-2	Liquid
112-07-2	112072	Ethylene Glycol Monobutyl Ether Acetate	112-07-2	Liquid
112-27-6	112276	Triethylene Glycol	112-27-6	Liquid
112-34-5	112345	Butyl Dioxitol	112-34-5	Liquid
115-07-1	115071	Propylene	115-07-1	Liquid
123-42-2	123422	Diacetone Alcohol (DAA)	123-42-2	Liquid
123-86-4	123864	Normal Butyl Acetate	123-86-4	Liquid
123-91-1	123911	1,4-Dioxane	123-91-1	Liquid
124-17-4	124174	Diethylene Glycol Monobutyl Ether Acetate	124-17-4	Liquid
127-18-4	127184	Tetrachloroethene	127-18-4	Liquid
1310-73-2	1310732	Sodium Hydroxide	1310-73-2	Solid
1330-20-7	1330207	Xylenes (mixed isomers)	1330-20-7	Liquid
141-78-6	141786	Ethyl Acetate	141-78-6	Liquid
1634-04-4	1634044	Methyl-tert-butyl Ether (MTBE)	1634-04-4	Liquid
18540-29-9	18540299	Hexavalent Chromium	18540-29-9	Solid
191-24-2	191242	Benzo[<i>g,h,i</i>]perylene	191-24-2	Liquid
26471-62-5	26471625	Toluene Diisocyanates	26471-62-5	Liquid
302-01-2	302012	Hydrazine	302-01-2	Liquid
463-58-1	463581	Carbonyl Sulfide	463-58-1	Gas
50-00-0	50000	Formaldehyde	50-00-0	Liquid
540-59-0	540590	1,2 Dichloroethene	540-59-0	Liquid
540-84-1	540841	2,2,4-Trimethylpentane (isooctane)	540-84-1	Liquid
67-56-1	67561	Methyl Alcohol	67-56-1	Liquid
67-63-0	67630	Isopropyl Alcohol	67-63-0	Liquid
67-66-3	67663	Chloroform	67-66-3	Liquid
68-12-2	68122	Dimethyl Formamide	68-12-2	Liquid
71-36-3	71363	Butanol-(1)	71-36-3	Liquid
71-43-2	71432	Benzene	71-43-2	Liquid
7429-90-5	7429905	Aluminum	7429-90-5	Solid
7440-48-4	7440484	Cobalt	7440-48-4	Solid
74-87-3	74873	Chloromethane	74-87-3	Liquid
75-00-3	75003	Chloroethane	75-00-3	Liquid
75-07-0	75070	Acetaldehyde	75-07-0	Liquid
75-09-2	75092	Methylene Chloride	75-09-2	Liquid
75-15-0	75150	Carbon Disulfide	75-15-0	Liquid
75-21-8	75218	Ethyleneoxide	75-21-8	Liquid
75-34-3	75343	1,1 Dichloroethane	75-34-3	Liquid
75-56-9	75569	Propylene Oxide	75-56-9	Liquid
75-65-0	75650	Butyl Alcohol (-tert)	75-65-0	Liquid
7647-01-0	7647010	Hydrogen Chloride	7647-01-0	Liquid
7664-38-2	7664382	Phosphoric Acid	7664-38-2	Liquid
7664-41-7	7664417	Ammonia	7664-41-7	Gas
7782-50-5	7782505	Chlorine	7782-50-5	Gas
78-92-2	78922	Secondary Butyl Alcohol (SBA)	78-92-2	Liquid
78-93-3	78933	Methyl Ethyl Ketone	78-93-3	Liquid
79-01-6	79016	Trichloroethylene	79-01-6	Liquid
80-62-6	80626	methyl methacrylate	80-62-6	Liquid
85-01-8	85018	Phenanthrene	85-01-8	Liquid

AB2588 No.	Name	Appendix
75070	Acetaldehyde	A-I
60355	Acetamide	A-I
75058	Acetonitrile	A-I
98862	Acetophenone	A-I
53963	2-Acetylaminofluorene [PAH-Derivative, POM]	A-I
107028	Acrolein	A-I
79061	Acrylamide	A-I
79107	Acrylic acid	A-I
107131	Acrylonitrile	A-I
107051	Allyl chloride	A-I
7429905	Aluminum	A-I
1344281	Aluminum oxide (fibrous forms)	A-I
117793	2-Aminoanthraquinone [PAH-Derivative, POM]	A-I
92671	4-Aminobiphenyl [POM]	A-I
61825	Amitrole	A-I
7664417	Ammonia	A-I
6484522	Ammonium nitrate	A-I
7783202	Ammonium sulfate	A-I
62533	Aniline	A-I
90040	o-Anisidine	A-I
-	Anthracene [PAH, POM], (see PAH)	A-I
7440360	Antimony	A-I
*	Antimony compounds including but not limited to:	A-I
1309644	Antimony trioxide	A-I
7440382	Arsenic	A-I
1016	Arsenic compounds (inorganic) including but not limited to:	A-I
7784421	Arsine	A-I
1017	Arsenic compounds (other than inorganic)	A-I
-	Asbestos (see Mineral fibers)	A-I
7440393	Barium	A-I
*	Barium Compounds	A-I
-	Benz[a]anthracene [PAH, POM], (see PAH)	A-I
71432	Benzene	A-I
92875	Benzidine (and its salts) [POM]	A-I
1020	Benzidine-based dyes [POM] including but not limited to:	A-I
1937377	Direct Black 38 [PAH-Derivative, POM]	A-I
2602462	Direct Blue 6 [PAH-Derivative, POM]	A-I
16071866	Direct Brown 95 (technical grade) [POM]	A-I
-	Benzo[a]pyrene [PAH, POM], (see PAH)	A-I
-	Benzo[b]fluoranthene [PAH, POM], (see PAH)	A-I
271896	Benzofuran	A-I
98077	Benzoic trichloride {Benzotrichloride}	A-I
-	Benzo[j]fluoranthene [PAH, POM] (see PAH)	A-I
-	Benzo[k]fluoranthene [PAH, POM] (see PAH)	A-I
98884	Benzoyl chloride	A-I
94360	Benzoyl peroxide	A-I
100447	Benzyl chloride	A-I
7440417	Beryllium	A-I
*	Beryllium compounds	A-I
92524	Biphenyl [POM]	A-I
111444	Bis(2-chloroethyl) ether {DCEE}	A-I
542881	Bis(chloromethyl) ether	A-I
103231	Bis(2-ethylhexyl) adipate	A-I

7726956	Bromine	A-I
*	Bromine compounds (inorganic) including but not limited to:	A-I
7789302	Bromine pentafluoride	A-I
10035106	Hydrogen bromide	A-I
7758012	Potassium bromate	A-I
75252	Bromoform	A-I
106990	1,3-Butadiene	A-I
540885	t-Butyl acetate	A-I
141322	Butyl acrylate	A-I
71363	n-Butyl alcohol	A-I
78922	sec-Butyl alcohol	A-I
75650	tert-Butyl alcohol	A-I
85687	Butyl benzyl phthalate	A-I
7440439	Cadmium	A-I
*	Cadmium compounds	A-I
156627	Calcium cyanamide	A-I
105602	Caprolactam	A-I
2425061	Captafol	A-I
133062	Captan	A-I
63252	Carbaryl [PAH-Derivative, POM]	A-I
1050	Carbon black extracts	A-I
75150	Carbon disulfide	A-I
56235	Carbon tetrachloride	A-I
463581	Carbonyl sulfide	A-I
1055	Carrageenan (degraded)	A-I
120809	Catechol	A-I
133904	Chloramben	A-I
57749	Chlordane	A-I
108171262	Chlorinated paraffins (average chain length, C12; approximately 60% Chlorin	A-I
7782505	Chlorine	A-I
10049044	Chlorine dioxide	A-I
79118	Chloroacetic acid	A-I
532274	2-Chloroacetophenone	A-I
106478	p-Chloroaniline	A-I
1058	Chlorobenzenes including but not limited to:	A-I
108907	Chlorobenzene	A-I
25321226	Dichlorobenzenes (mixed isomers) including:	A-I
95501	1,2-Dichlorobenzene	A-I
541731	1,3-Dichlorobenzene	A-I
106467	p-Dichlorobenzene {1,4-Dichlorobenzene}	A-I
120821	1,2,4-Trichlorobenzene	A-I
510156	Chlorobenzilate [POM] {Ethyl-4,4'-dichlorobenzilate}	A-I
67663	Chloroform	A-I
107302	Chloromethyl methyl ether (technical grade)	A-I
1060	Chlorophenols including but not limited to:	A-I
95578	2-Chlorophenol	A-I
120832	2,4-Dichlorophenol	A-I
87865	Pentachlorophenol	A-I
25167833	Tetrachlorophenols including but not limited to:	A-I
58902	2,3,4,6-Tetrachlorophenol	A-I
95954	2,4,5-Trichlorophenol	A-I
88062	2,4,6-Trichlorophenol	A-I
95830	4-Chloro-o-phenylenediamine	A-I
76062	Chloropicrin	A-I

126998	Chloroprene	A-I
95692	p-Chloro-o-toluidine	A-I
7440473	Chromium	A-I
*	Chromium compounds (other than hexavalent)	A-I
18540299	Chromium, hexavalent (and compounds) including but not limited to:	A-I
10294403	Barium chromate	A-I
13765190	Calcium chromate	A-I
1333820	Chromium trioxide	A-I
7758976	Lead chromate	A-I
10588019	Sodium dichromate	A-I
7789062	Strontium chromate	A-I
-	Chrysene [PAH, POM], (see PAH)	A-I
7440484	Cobalt	A-I
*	Cobalt compounds	A-I
1066	Coke oven emissions	A-I
7440508	Copper	A-I
*	Copper compounds	A-I
1070	Creosotes	A-I
120718	p-Cresidine	A-I
1319773	Cresols (mixtures of) {Cresylic acid} including:	A-I
108394	m-Cresol	A-I
95487	o-Cresol	A-I
106445	p-Cresol	A-I
4170303	Crotonaldehyde	A-I
98828	Cumene	A-I
80159	Cumene hydroperoxide	A-I
135206	Cupferron	A-I
57125	Cyanide compounds (inorganic) including but not limited to:	A-I
74908	Hydrocyanic acid	A-I
110827	Cyclohexane	A-I
108930	Cyclohexanol	A-I
66819	Cycloheximide	A-I
	Decabromodiphenyl oxide [POM] (see Polybrominated diphenyl ethers)	A-I
1075	Dialkylnitrosamines including but not limited to:	A-I
924163	N-Nitrosodi-n-butylamine	A-I
1116547	N-Nitrosodiethanolamine	A-I
55185	N-Nitrosodiethylamine	A-I
62759	N-Nitrosodimethylamine	A-I
621647	N-Nitrosodi-n-propylamine	A-I
10595956	N-Nitrosomethylethylamine	A-I
615054	2,4-Diaminoanisole	A-I
1078	Diaminotoluenes (mixed isomers) including but not limited to:	A-I
95807	2,4-Diaminotoluene {2,4-Toluene diamine}	A-I
334883	Diazomethane	A-I
226368	Dibenz[a,h]acridine [POM]	A-I
224420	Dibenz[a,j]acridine [POM]	A-I
-	Dibenz[a,h]anthracene [PAH, POM], (see PAH)	A-I
194592	7H-Dibenzo[c,g]carbazole	A-I
-	Dibenzo[a,e]pyrene [PAH, POM], (see PAH)	A-I
-	Dibenzo[a,h]pyrene [PAH, POM], (see PAH)	A-I
-	Dibenzo[a,i]pyrene [PAH, POM], (see PAH)	A-I
-	Dibenzo[a,l]pyrene [PAH, POM], (see PAH)	A-I
132649	Dibenzofuran [POM]	A-I
-	Dibenzofurans (chlorinated) (see Polychlorinated dibenzofurans) [POM]	A-I

96128	1,2-Dibromo-3-chloropropane {DBCP}	A-I
96139	2,3-Dibromo-1-propanol	A-I
84742	Dibutyl phthalate	A-I
-	p-Dichlorobenzene (1,4-Dichlorobenzene) (see Chlorobenzenes)	A-I
91941	3,3'-Dichlorobenzidine [POM]	A-I
72559	Dichlorodiphenyldichloroethylene {DDE} [POM]	A-I
75343	1,1-Dichloroethane {Ethylidene dichloride}	A-I
94757	Dichlorophenoxyacetic acid, salts and esters {2,4-D}	A-I
78875	1,2-Dichloropropane {Propylene dichloride}	A-I
542756	1,3-Dichloropropene	A-I
62737	Dichlorovos {DDVP}	A-I
115322	Dicofol [POM]	A-I
--	Diesel engine exhaust	A-I
9901	Diesel engine exhaust, particulate matter {Diesel PM}	A-I
9902	Diesel engine exhaust, total organic gas	A-I
#	Diesel fuel (marine)	A-I
111422	Diethanolamine	A-I
117817	Di(2-ethylhexyl) phthalate {DEHP}	A-I
64675	Diethyl sulfate	A-I
119904	3,3'-Dimethoxybenzidine [POM]	A-I
60117	4-Dimethylaminoazobenzene [POM]	A-I
121697	N,N-Dimethylaniline	A-I
57976	7,12-Dimethylbenz[a]anthracene [PAH-Derivative, POM]	A-I
119937	3,3'-Dimethylbenzidine {o-Tolidine} [POM]	A-I
79447	Dimethyl carbamoyl chloride	A-I
68122	Dimethyl formamide	A-I
57147	1,1-Dimethylhydrazine	A-I
131113	Dimethyl phthalate	A-I
77781	Dimethyl sulfate	A-I
534521	4,6-Dinitro-o-cresol (and salts)	A-I
51285	2,4-Dinitrophenol	A-I
42397648	1,6-Dinitropyrene [PAH-Derivative, POM]	A-I
42397659	1,8-Dinitropyrene [PAH-Derivative, POM]	A-I
25321146	Dinitrotoluenes (mixed isomers) including but not limited to:	A-I
121142	2,4-Dinitrotoluene	A-I
606202	2,6-Dinitrotoluene	A-I
123911	1,4-Dioxane	A-I
-	Dioxins (Chlorinated dibenzodioxins) (see Polychlorinated dib	A-I
630933	Diphenylhydantoin [POM]	A-I
122667	1,2-Diphenylhydrazine {Hydrazobenzene} [POM]	A-I
1090	Environmental Tobacco Smoke	A-I
106898	Epichlorohydrin	A-I
106887	1,2-Epoxybutane	A-I
1091	Epoxy resins	A-I
140885	Ethyl acrylate	A-I
100414	Ethyl benzene	A-I
75003	Ethyl chloride {Chloroethane}	A-I
-	Ethyl-4,4'-dichlorobenzilate (see Chlorobenzilate)	A-I
74851	Ethylene	A-I
106934	Ethylene dibromide {EDB, 1,2-Dibromoethane}	A-I
107062	Ethylene dichloride {EDC, 1,2-Dichloroethane}	A-I
107211	Ethylene glycol	A-I
151564	Ethyleneimine {Aziridine}	A-I
75218	Ethylene oxide	A-I

96457	Ethylene thiourea	A-I
1101	Fluorides and compounds including but not limited to:	A-I
7664393	Hydrogen fluoride	A-I
1103	Fluorocarbons (brominated)	A-I
1104	Fluorocarbons (chlorinated) including but not limited to:	A-I
76131	Chlorinated fluorocarbon {CFC-113} {1,1,2-Trichloro-1,2,2-trifluoroethane}	A-I
75456	Chlorodifluoromethane {Freon 22}	A-I
75718	Dichlorodifluoromethane {Freon 12}	A-I
75434	Dichlorofluoromethane {Freon 21}	A-I
75694	Trichlorofluoromethane {Freon 11}	A-I
50000	Formaldehyde	A-I
110009	Furan	A-I
--	Gasoline engine exhaust including but not limited to:	A-I
--	Gasoline engine exhaust (condensates & extracts)	A-I
9910	Gasoline engine exhaust, particulate matter	A-I
9911	Gasoline engine exhaust, total organic gas	A-I
1110	Gasoline vapors	A-I
111308	Glutaraldehyde	A-I
1115	Glycol ethers and their acetates including but not limited to:	A-I
111466	Diethylene glycol	A-I
111966	Diethylene glycol dimethyl ether	A-I
112345	Diethylene glycol monobutyl ether	A-I
111900	Diethylene glycol monoethyl ether	A-I
111773	Diethylene glycol monomethyl ether	A-I
25265718	Dipropylene glycol	A-I
34590948	Dipropylene glycol monomethyl ether	A-I
629141	Ethylene glycol diethyl ether	A-I
110714	Ethylene glycol dimethyl ether	A-I
111762	Ethylene glycol monobutyl ether	A-I
110805	Ethylene glycol monoethyl ether	A-I
111159	Ethylene glycol monoethyl ether acetate	A-I
109864	Ethylene glycol monomethyl ether	A-I
110496	Ethylene glycol monomethyl ether acetate	A-I
2807309	Ethylene glycol monopropyl ether	A-I
107982	Propylene glycol monomethyl ether	A-I
108656	Propylene glycol monomethyl ether acetate	A-I
112492	Triethylene glycol dimethyl ether	A-I
76448	Heptachlor	A-I
118741	Hexachlorobenzene	A-I
87683	Hexachlorobutadiene	A-I
608731	Hexachlorocyclohexanes (mixed or technical grade)	A-I
319846	alpha-Hexachlorocyclohexane	A-I
319857	beta-Hexachlorocyclohexane	A-I
58899	Lindane {gamma-Hexachlorocyclohexane}	A-I
77474	Hexachlorocyclopentadiene	A-I
67721	Hexachloroethane	A-I
680319	Hexamethylphosphoramide	A-I
110543	Hexane	A-I
302012	Hydrazine	A-I
7647010	Hydrochloric acid	A-I
-	Hydrocyanic acid (see Cyanide compounds)	A-I
7783064	Hydrogen sulfide	A-I
123319	Hydroquinone	A-I
-	Indeno[1,2,3-cd]pyrene [PAH, POM], (see PAH)	A-I

13463406	Iron pentacarbonyl	A-I
1125	Isocyanates including but not limited to:	A-I
822060	Hexamethylene-1,6-diisocyanate	A-I
101688	Methylene diphenyl diisocyanate {MDI} [POM]	A-I
624839	Methyl isocyanate	A-I
-	Toluene-2,4-diisocyanate (see Toluene diisocyanates)	A-I
-	Toluene-2,6-diisocyanate (see Toluene diisocyanates)	A-I
78591	Isophorone	A-I
78795	Isoprene, except from vegetative emission sources	A-I
67630	Isopropyl alcohol	A-I
80057	4,4'-Isopropylidenediphenol [POM]	A-I
7439921	Lead	A-I
1128	Lead compounds (inorganic) including but not limited to:	A-I
301042	Lead acetate	A-I
-	Lead chromate (see Chromium, hexalent)	A-I
7446277	Lead phosphate	A-I
1335326	Lead subacetate	A-I
1129	Lead compounds (other than inorganic)	A-I
108316	Maleic anhydride	A-I
7439965	Manganese	A-I
*	Manganese compounds	A-I
7439976	Mercury	A-I
*	Mercury compounds including but not limited to:	A-I
7487947	Mercuric chloride	A-I
593748	Methyl mercury {Dimethylmercury}	A-I
67561	Methanol	A-I
72435	Methoxychlor [POM]	A-I
75558	2-Methylaziridine {1,2-Propyleneimine}	A-I
74839	Methyl bromide {Bromomethane}	A-I
74873	Methyl chloride {Chloromethane}	A-I
71556	Methyl chloroform {1,1,1-Trichloroethane}	A-I
56495	3-Methylcholanthrene [PAH-Derivative, POM]	A-I
3697243	5-Methylchrysene [PAH-Derivative, POM]	A-I
101144	4,4'-Methylene bis(2-chloroaniline) {MOCA} [POM]	A-I
75092	Methylene chloride {Dichloromethane}	A-I
101779	4,4'-Methylenedianiline (and its dichloride) [POM]	A-I
78933	Methyl ethyl ketone {2-Butanone}	A-I
60344	Methyl hydrazine	A-I
74884	Methyl iodide {Iodomethane}	A-I
108101	Methyl isobutyl ketone {Hexone}	A-I
75865	2-Methylactonitrile {Acetone cyanohydrin}	A-I
80626	Methyl methacrylate	A-I
109068	2-Methylpyridine	A-I
1634044	Methyl tert-butyl ether	A-I
90948	Michler's ketone [POM]	A-I
1136	Mineral fibers (fine mineral fibers which are man-made, and are airborne part	A-I
1056	Ceramic fibers	A-I
1111	Glasswool fibers	A-I
1168	Rockwool	A-I
1181	Slagwool	A-I
1135	Mineral fibers (other than man-made) including but not limited to:	A-I
1332214	Asbestos	A-I
12510428	Erionite	A-I
1190	Talc containing asbestiform fibers	A-I

1313275	Molybdenum trioxide	A-I
-	Naphthalene [PAH, POM], (see PAH)	A-I
7440020	Nickel	A-I
*	Nickel compounds including but not limited to:	A-I
373024	Nickel acetate	A-I
3333673	Nickel carbonate	A-I
13463393	Nickel carbonyl	A-I
12054487	Nickel hydroxide	A-I
1271289	Nickelocene	A-I
1313991	Nickel oxide	A-I
12035722	Nickel subsulfide	A-I
1146	Nickel refinery dust from the pyrometallurgical process	A-I
7697372	Nitric acid	A-I
139139	Nitrilotriacetic acid	A-I
602879	5-Nitroacenaphthene [PAH-Derivative, POM]	A-I
98953	Nitrobenzene	A-I
92933	4-Nitrobiphenyl [POM]	A-I
7496028	6-Nitrochrysene [PAH-Derivative, POM]	A-I
607578	2-Nitrofluorene [PAH-Derivative, POM]	A-I
302705	Nitrogen mustard N-oxide	A-I
100027	4-Nitrophenol	A-I
79469	2-Nitropropane	A-I
5522430	1-Nitropyrene [PAH-Derivative, POM]	A-I
57835924	4-Nitropyrene [PAH-Derivative, POM]	A-I
86306	N-Nitrosodiphenylamine	A-I
156105	p-Nitrosodiphenylamine [POM]	A-I
684935	N-Nitroso-N-methylurea	A-I
59892	N-Nitrosomorpholine	A-I
100754	N-Nitrosopiperidine	A-I
930552	N-Nitrosopyrrolidine	A-I
*	Oleum (see Sulfuric acid and oleum)	A-I
--	PAHs (Polycyclic aromatic hydrocarbons) [POM] including but not limited to:	A-I
1151	PAHs, total, w/o individ. components reported [PAH, POM]	A-I
1150	PAHs, total, with individ. components also reported [PAH, POM]	A-I
83329	Acenaphthene [PAH, POM]	A-I
208968	Acenaphthylene [PAH, POM]	A-I
120127	Anthracene [PAH, POM]	A-I
56553	Benz[a]anthracene [PAH, POM]	A-I
50328	Benzo[a]pyrene [PAH, POM]	A-I
205992	Benzo[b]fluoranthene	A-I
192972	Benzo[e]pyrene [PAH, POM]	A-I
191242	Benzo[g,h,i]perylene [PAH, POM]	A-I
205823	Benzo[j]fluoranthene [PAH, POM]	A-I
207089	Benzo[k]fluoranthene [PAH, POM]	A-I
218019	Chrysene [PAH, POM]	A-I
53703	Dibenz[a,h]anthracene [PAH, POM]	A-I
192654	Dibenzo[a,e]pyrene [PAH, POM]	A-I
189640	Dibenzo[a,h]pyrene [PAH, POM]	A-I
189559	Dibenzo[a,i]pyrene [PAH, POM]	A-I
191300	Dibenzo[a,l]pyrene [PAH, POM]	A-I
206440	Fluoranthene [PAH, POM]	A-I
86737	Fluorene [PAH, POM]	A-I
193395	Indeno[1,2,3-cd]pyrene [PAH, POM]	A-I
91576	2-Methyl naphthalene [PAH, POM]	A-I

91203	Naphthalene [PAH, POM]	A-I
198550	Perylene [PAH, POM]	A-I
85018	Phenanthrene [PAH, POM]	A-I
129000	Pyrene [PAH, POM]	A-I
#	PAH-Derivatives (Polycyclic aromatic hydrocarbon derivatives) [POM] (includ	A-I
56382	Parathion	A-I
1336363	PCBs (Polychlorinated biphenyls), total [POM] including but not limited to:	A-I
32598133	3,3',4,4'-TETRACHLOROBIPHENYL (PCB 77)	A-I
70362504	3,4,4',5-TETRACHLOROBIPHENYL (PCB 81)	A-I
32598144	2,3,3',4,4'-PENTACHLOROBIPHENYL (PCB 105)	A-I
74472370	2,3,4,4',5-PENTACHLOROBIPHENYL (PCB 114)	A-I
31508006	2,3',4,4',5-PENTACHLOROBIPHENYL (PCB 118)	A-I
65510443	2,3',4,4',5'-PENTACHLOROBIPHENYL (PCB 123)	A-I
57465288	3,3',4,4',5-PENTACHLOROBIPHENYL (PCB 126)	A-I
38380084	2,3,3',4,4',5-HEXACHLOROBIPHENYL (PCB 156)	A-I
69782907	2,3,3',4,4',5'-HEXACHLOROBIPHENYL (PCB 157)	A-I
52663726	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (PCB 167)	A-I
32774166	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (PCB 169)	A-I
39635319	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (PCB 189)	A-I
82688	Pentachloronitrobenzene {Quintobenzene}	A-I
79210	Peracetic acid	A-I
127184	Perchloroethylene {Tetrachloroethene}	A-I
2795393	Perfluorooctanoic acid {PFOA} and its salts, esters, and sulfonates	A-I
108952	Phenol	A-I
106503	p-Phenylenediamine	A-I
90437	2-Phenylphenol [POM]	A-I
75445	Phosgene	A-I
7723140	Phosphorus	A-I
--	Phosphorus compounds:	A-I
7803512	Phosphine	A-I
7664382	Phosphoric acid	A-I
10025873	Phosphorus oxychloride	A-I
10026138	Phosphorus pentachloride	A-I
1314563	Phosphorus pentoxide	A-I
7719122	Phosphorus trichloride	A-I
126738	Tributyl phosphate	A-I
78400	Triethyl phosphine	A-I
512561	Trimethyl phosphate	A-I
78308	Triorthocresyl phosphate [POM]	A-I
115866	Triphenyl phosphate [POM]	A-I
101020	Triphenyl phosphite [POM]	A-I
85449	Phthalic anhydride	A-I
2222	Polybrominated diphenyl ethers {PBDEs}, including but not limited to:	A-I
1163195	Decabromodiphenyl oxide [POM]	A-I
--	Polychlorinated dibenzo-p-dioxins {PCDDs or Dioxins} [POM] includ	A-I
1086	Dioxins, total, w/o individ. isomers reported {PCDDs} [POM]	A-I
1085	Dioxins, total, with individ. isomers also reported {PCDDs} [POM]	A-I
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin {TCDD} [POM]	A-I
40321764	1,2,3,7,8-Pentachlorodibenzo-p-dioxin [POM]	A-I
39227286	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [POM]	A-I
57653857	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [POM]	A-I
19408743	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [POM]	A-I
35822469	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [POM]	A-I
3268879	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin [POM]	A-I

41903575	Total Tetrachlorodibenzo-p-dioxin [POM]	A-I
36088229	Total Pentachlorodibenzo-p-dioxin [POM]	A-I
34465468	Total Hexachlorodibenzo-p-dioxin [POM]	A-I
37871004	Total Heptachlorodibenzo-p-dioxin [POM]	A-I
--	Polychlorinated dibenzofurans {PCDFs or Dibenzofurans} [POM]	A-I
1080	Dibenzofurans (Polychlorinated dibenzofurans) {PCDFs} [POM]	A-I
51207319	2,3,7,8-Tetrachlorodibenzofuran [POM]	A-I
57117416	1,2,3,7,8-Pentachlorodibenzofuran [POM]	A-I
57117314	2,3,4,7,8-Pentachlorodibenzofuran [POM]	A-I
70648269	1,2,3,4,7,8-Hexachlorodibenzofuran [POM]	A-I
57117449	1,2,3,6,7,8-Hexachlorodibenzofuran [POM]	A-I
72918219	1,2,3,7,8,9-Hexachlorodibenzofuran [POM]	A-I
60851345	2,3,4,6,7,8-Hexachlorodibenzofuran [POM]	A-I
67562394	1,2,3,4,6,7,8-Heptachlorodibenzofuran [POM]	A-I
55673897	1,2,3,4,7,8,9-Heptachlorodibenzofuran [POM]	A-I
39001020	1,2,3,4,6,7,8,9-Octachlorodibenzofuran [POM]	A-I
55722275	Total Tetrachlorodibenzofuran [POM]	A-I
30402154	Total Pentachlorodibenzofuran [POM]	A-I
55684941	Total Hexachlorodibenzofuran [POM]	A-I
38998753	Total Heptachlorodibenzofuran [POM]	A-I
#	POM (Polycyclic organic matter) (including but not limited to those substance	A-I
1120714	1,3-Propane sultone	A-I
57578	beta-Propiolactone	A-I
123386	Propionaldehyde	A-I
114261	Propoxur {Baygon}	A-I
115071	Propylene	A-I
75569	Propylene oxide	A-I
-	1,2-Propyleneimine (see 2-Methylaziridine)	A-I
110861	Pyridine	A-I
91225	Quinoline	A-I
106514	Quinone	A-I
1165	Radionuclides including but not limited to:	A-I
24267569	Iodine-131	A-I
1166	Radon and its decay products	A-I
50555	Reserpine [POM]	A-I
#	Residual (heavy) fuel oils	A-I
7782492	Selenium	A-I
*	Selenium compounds including but not limited to:	A-I
7783075	Hydrogen selenide	A-I
7446346	Selenium sulfide	A-I
1175	Silica, crystalline (respirable)	A-I
7440224	Silver	A-I
*	Silver compounds	A-I
1310732	Sodium hydroxide	A-I
100425	Styrene	A-I
96093	Styrene oxide	A-I
*	Sulfuric acid and oleum	A-I
8014957	Oleum	A-I
7446719	Sulfur trioxide	A-I
7664939	Sulfuric acid	A-I
100210	Terephthalic acid	A-I
79345	1,1,2,2-Tetrachloroethane	A-I
-	Tetrachlorophenols (see Chlorophenols)	A-I
7440280	Thallium	A-I

*	Thallium compounds	A-I
62555	Thioacetamide	A-I
62566	Thiourea	A-I
7550450	Titanium tetrachloride	A-I
108883	Toluene	A-I
-	2,4-Toluenediamine (see 2,4-Diaminotoluene)	A-I
26471625	Toluene diisocyanates including but not limited to:	A-I
584849	Toluene-2,4-diisocyanate	A-I
91087	Toluene-2,6-diisocyanate	A-I
95534	o-Toluidine	A-I
8001352	Toxaphene {Polychlorinated camphenes}	A-I
-	1,1,1-Trichloroethane (see Methyl chloroform)	A-I
79005	1,1,2-Trichloroethane {Vinyl trichloride}	A-I
79016	Trichloroethylene	A-I
-	2,4,6-Trichlorophenol (see Chlorophenols)	A-I
96184	1,2,3-Trichloropropane	A-I
121448	Triethylamine	A-I
1582098	Trifluralin	A-I
25551137	Trimethylbenzenes including but not limited to:	A-I
95636	1,2,4-Trimethylbenzene	A-I
540841	2,2,4-Trimethylpentane	A-I
51796	Urethane {Ethyl carbamate}	A-I
7440622	Vanadium (fume or dust)	A-I
1314621	Vanadium pentoxide	A-I
108054	Vinyl acetate	A-I
593602	Vinyl bromide	A-I
75014	Vinyl chloride	A-I
100403	4-Vinylcyclohexene	A-I
75025	Vinyl fluoride	A-I
75354	Vinylidene chloride	A-I
1206	Wood preservatives (containing arsenic and chromate)	A-I
1330207	Xylenes (mixed) including:	A-I
108383	m-Xylene	A-I
95476	o-Xylene	A-I
106423	p-Xylene	A-I
7440666	Zinc	A-I
*	Zinc compounds including but not limited to:	A-I
1314132	Zinc oxide	A-I
26148685	A-alpha-C {2-Amino-9H-pyrido[2,3-b]indole}	A-II
34256821	Acetochlor	A-II
62476599	Acifluorfen [POM]	A-II
3688537	AF-2	A-II
1000	Aflatoxins	A-II
15972608	Alachlor	A-II
309002	Aldrin	A-II
107186	Allyl alcohol	A-II
60093	p-Aminoazobenzene {4-Aminoazobenzene} [POM]	A-II
97563	o-Aminoazotoluene [POM]	A-II
6109973	3-Amino-9-ethylcarbazole hydrochloride [POM]	A-II
125848	Aminoglutethimide	A-II
82280	1-Amino-2-methylantraquinone [PAH-Derivative, POM]	A-II
68006837	2-Amino-3-methyl-9H-pyrido(2,3-b) indole {MeA-alpha-C}	A-II
712685	2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	A-II
134292	o-Anisidine hydrochloride	A-II

104949	p-Anisidine	A-II
140578	Aramite	A-II
492808	Auramine [POM]	A-II
446866	Azathioprine	A-II
103333	Azobenzene [POM]	A-II
98873	Benzal chloride	A-II
55210	Benzamide	A-II
1694093	Benzyl violet 4B [POM]	A-II
1025	Betel quid with tobacco	A-II
494031	N-N-Bis(2-chloroethyl)-2-naphthylamine {Chlornaphazine} [PAH-Derivative, P	A-II
108601	Bis(2-chloro-1-methylethyl) ether	A-II
1030	Bitumens, extracts of steam-refined and air-refined bitumens	A-II
1035	Bleomycins	A-II
75274	Bromodichloromethane	A-II
1689845	Bromoxynil	A-II
25013165	Butylated hydroxyanisole {BHA}	A-II
123728	Butyraldehyde	A-II
3068880	beta-Butyrolactone	A-II
630080	Carbon monoxide	A-II
143500	Chlordecone {Kepone}	A-II
6164983	Chlordimeform	A-II
115286	Chlorendic acid	A-II
124481	Chlorodibromomethane	A-II
563473	3-Chloro-2-methylpropene	A-II
1065	Chlorophenoxy herbicides	A-II
1897456	Chlorothalonil	A-II
1059	p-Chloro-o-toluidine (strong acid salts)	A-II
4680788	C. I. Acid Green 3 [POM] Note: "C.I." means "color index"	A-II
569642	C. I. Basic Green 4 [POM]	A-II
989388	C. I. Basic Red 1 [POM]	A-II
569619	C. I. Basic Red 9 monohydrochloride [POM]	A-II
2832408	C. I. Disperse Yellow 3 [POM]	A-II
87296	Cinnamyl anthranilate [POM]	A-II
6358538	Citrus Red No. 2 [POM]	A-II
8007452	Coal tars	A-II
21725462	Cyanazine	A-II
14901087	Cycasin	A-II
13121705	Cyhexatin	A-II
3468631	D and C Orange No. 17 [PAH-Derivative, POM]	A-II
81889	D and C Red No. 19 [POM]	A-II
2092560	D and C Red No. 8 [PAH-Derivative, POM]	A-II
5160021	D and C Red No. 9 [PAH-Derivative, POM]	A-II
1596845	Daminozide	A-II
50293	DDT {1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane} [POM]	A-II
613354	N,N'-Diacetylbenzidine [POM]	A-II
2303164	Diallate	A-II
39156417	2,4-Diaminoanisole sulfate	A-II
101804	4,4'-Diaminodiphenyl ether [POM]	A-II
764410	1,4-Dichloro-2-butene	A-II
28434868	3,3'-Dichloro-4,4'-diaminodiphenyl ether [POM]	A-II
72548	Dichlorodiphenyldichloroethane {DDD} [POM]	A-II
540590	1,2-Dichloroethylene	A-II
78886	2,3-Dichloropropene	A-II
60571	Dieldrin	A-II

1464535	Diepoxybutane	A-II
1615801	1,2-Diethylhydrazine	A-II
84662	Diethyl phthalate	A-II
101906	Diglycidyl resorcinol ether {DGRE}	A-II
94586	Dihydrosafrole	A-II
20325400	3,3'-Dimethoxybenzidine dihydrochloride [POM]	A-II
55738540	trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole	A-II
540738	1,2-Dimethylhydrazine	A-II
105679	2,4-Dimethylphenol {2,4-Xylenol}	A-II
513371	Dimethylvinylchloride {DMVC}	A-II
25154545	Dinitrobenzenes (mixtures of) including:	A-II
99650	m-Dinitrobenzene	A-II
528290	o-Dinitrobenzene	A-II
100254	p-Dinitrobenzene	A-II
39300453	Dinocap	A-II
88857	Dinoseb	A-II
117840	n-Dioctyl phthalate	A-II
2475458	Disperse Blue 1 [PAH-Derivative, POM]	A-II
541413	Ethyl chloroformate	A-II
62500	Ethyl methanesulfonate	A-II
2164172	Fluometuron	A-II
133073	Folpet	A-II
3570750	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	A-II
60568050	Furmecycloz	A-II
67730114	Glu-P-1 {2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole}	A-II
67730103	Glu-P-2 {2-Aminodipyrido[1,2-a:3',2'-d]imidazole}	A-II
765344	Glycidaldehyde	A-II
556525	Glycidol	A-II
16568028	Gyromitrin {Acetaldehyde methylformylhydrazone}	A-II
2784943	HC Blue 1	A-II
1024573	Heptachlor epoxide	A-II
1335871	Hexachloronaphthalene [PAH-Derivative, POM]	A-II
10034932	Hydrazine sulfate	A-II
76180966	IQ {2-Amino-3-methylimidazo[4,5-f]quinoline}	A-II
78842	Isobutyraldehyde	A-II
120581	Isosafrole	A-II
4759482	Isotretinoin	A-II
77501634	Lactofen [POM]	A-II
1131	Lubricant base oils and derived products, specifically vacuum distillates, acid	A-II
8018017	Mancozeb	A-II
12427382	Maneb	A-II
59052	Methotrexate	A-II
96333	Methyl acrylate	A-II
590965	Methylazoxymethanol	A-II
592621	Methylazoxymethanol acetate	A-II
101611	4,4'-Methylene bis (N,N-dimethyl) benzenamine [POM]	A-II
838880	4,4'-Methylene bis(2-methylaniline) [POM]	A-II
74953	Methylene bromide	A-II
66273	Methyl methanesulfonate	A-II
129157	2-Methyl-1-nitroanthraquinone (uncertain purity) [PAH-Derivative, POM]	A-II
70257	N-Methyl-N'-nitro-N-nitrosoguanidine	A-II
-	N-Methyl-N-nitrosourethane (see N-Nitroso-N-methylurethane)	A-II
924425	N-Methyloacrylamide	A-II
9006422	Metiram	A-II

1140	Mineral oils (untreated and mildly treated oils; and those used in occupations	A-II
2385855	Mirex	A-II
315220	Monocrotaline	A-II
505602	Mustard gas {Sulfur mustard}	A-II
134327	1-Naphthylamine [PAH-Derivative, POM]	A-II
91598	2-Naphthylamine [PAH-Derivative, POM]	A-II
54115	Nicotine	A-II
1148	Nitrilotriacetic acid (salts) including but not limited to:	A-II
18662538	Nitrilotriacetic acid, trisodium salt monohydrate	A-II
99592	5-Nitro-o-anisidine	A-II
1836755	Nitrofen (technical grade)	A-II
51752	Nitrogen mustard {Mechlorethamine}	A-II
55867	Nitrogen mustard hydrochloride	A-II
55630	Nitroglycerin	A-II
88755	2-Nitrophenol	A-II
57835924	4-Nitropyrene [PAH-Derivative, POM]	A-II
759739	N-Nitroso-N-ethylurea	A-II
60153493	3-(N-Nitrosomethylamino)propionitrile	A-II
64091914	4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone {NNK}	A-II
615532	N-Nitroso-N-methylurethane	A-II
4549400	N-Nitrosomethylvinylamine	A-II
16543558	N-Nitrososarcosine	A-II
13256229	N-Nitrososarcosine	A-II
303479	Ochratoxin A [POM]	A-II
2234131	Octachloronaphthalene [PAH-Derivative, POM]	A-II
2646175	Oil Orange SS [PAH-Derivative, POM]	A-II
20816120	Osmium tetroxide	A-II
794934	Panfuran S {Dihydroxymethylfuratrizine}	A-II
122601	Phenyl glycidyl ether	A-II
57410	Phenytoin [POM]	A-II
88891	Picric acid	A-II
1155	Polybrominated biphenyls {PBBs} [POM]	A-II
53973981	Polygeenan	A-II
3761533	Ponceau MX [PAH-Derivative, POM]	A-II
3564098	Ponceau 3R [PAH-Derivative, POM]	A-II
36791045	Ribavirin	A-II
94597	Safrole	A-II
1180	Shale oils	A-II
132274	Sodium o-phenylphenate [POM]	A-II
128449	Sodium saccharin	A-II
1185	Soots	A-II
10048132	Sterigmatocystin [POM]	A-II
95067	Sulfallate	A-II
5216251	p-alpha,alpha,alpha-Tetrachlorotoluene	A-II
961115	Tetrachlorvinphos	A-II
509148	Tetranitromethane	A-II
139651	4,4'-Thiodianiline [POM]	A-II
1314201	Thorium dioxide	A-II
1200	Tobacco products, smokeless	A-II
1205	alpha-chlorinated Toluenes	A-II
636215	o-Toluidine hydrochloride	A-II
106490	p-Toluidine	A-II
52686	Trichlorfon	A-II
68768	Tris(aziridiny)-p-benzoquinone {Triaziqune}	A-II

52244	Tris(1-aziridinyl) phosphine sulfide {Thiotepa}	A-II
126727	Tris(2,3-dibromopropyl)phosphate	A-II
62450060	Trp-P-1 {3-Amino-1,4-dimethyl-5H-pyrido[4,3-b]indole}	A-II
62450071	Trp-P-2 {3-Amino-1-methyl-5H-pyrido[4,3-b]indole}	A-II
72571	Trypan blue [PAH-Derivative, POM]	A-II
106876	4-Vinyl-1-cyclohexene diepoxide {Vinyl cyclohexene dioxide}	A-II
81812	Warfarin [POM]	A-II
87627	2,6-Xylidene	A-II
12122677	Zineb	A-II
546883	Acetohydroxamic acid	A-III
50760	Actinomycin D	A-III
23214928	Adriamycin [PAH-Derivative, POM]	A-III
28981977	Alprazolam [POM]	A-III
39831555	Amikacin sulfate	A-III
54626	Aminopterin	A-III
1005	Analgesic mixtures containing phenacetin	A-III
1010	Androgenic (anabolic) steroids including but not limited to:	A-III
58184	Methyltestosterone	A-III
434071	Oxymetholone	A-III
58220	Testosterone and its esters including but not limited to:	A-III
315377	Testosterone enanthate	A-III
50782	Aspirin	A-III
115026	Azaserine	A-III
5411223	Benzphetamine hydrochloride [POM]	A-III
154938	Bischloroethyl nitrosourea	A-III
55981	1,4-Butanediol dimethanesulfonate {Busulfen/Myleran}	A-III
41575944	Carboplatin	A-III
474259	Chenodiol	A-III
305033	Chlorambucil	A-III
56757	Chloramphenicol	A-III
1620219	Chlorcyclizine hydrochloride [POM]	A-III
13010474	1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea {CCNU}	A-III
13909096	1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea {Methyl CCNU}	A-III
15663271	Cisplatin	A-III
50419	Clomiphene citrate [POM]	A-III
50180	Cyclophosphamide	A-III
147944	Cytarabine	A-III
4342034	Dacarbazine	A-III
17230885	Danazol	A-III
20830813	D Daunomycin [PAH-Derivative, POM]	A-III
23541506	D Daunorubicin hydrochloride [PAH-Derivative, POM]	A-III
84173	Dienestrol [POM]	A-III
564250	Doxycycline	A-III
379793	Ergotamine tartrate [POM]	A-III
1095	Estrogens, non-steroidal including but not limited to:	A-III
56531	Diethylstilbestrol [POM]	A-III
1100	Estrogens, steroidal including but not limited to:	A-III
1068	Conjugated estrogens	A-III
50282	Estradiol 17 beta	A-III
53167	Estrone	A-III
57636	Ethinyl estradiol	A-III
72333	Mestranol	A-III
33419420	Etoposide [POM]	A-III
54350480	Etretinate	A-III

51218	Fluorouracil	A-III
76437	Fluoxymesterone	A-III
13311847	Flutamide	A-III
67458	Furazolidone	A-III
126078	Griseofulvin	A-III
23092173	Halazepam [POM]	A-III
3778732	Ifosfamide	A-III
9004664	Iron dextran complex	A-III
303344	Lasiocarpine	A-III
554132	Lithium carbonate	A-III
919164	Lithium citrate	A-III
846491	Lorazepam [POM]	A-III
595335	Megestrol acetate	A-III
148823	Melphalan	A-III
9002680	Menotropins	A-III
6112761	Mercaptopurine	A-III
531760	Merphalan	A-III
3963959	Methacycline hydrochloride	A-III
60560	Methimazole	A-III
15475566	Methotrexate sodium	A-III
484208	5-Methoxypsoralen	A-III
56042	Methylthiouracil	A-III
443481	Metronidazole	A-III
59467968	Midazolam hydrochloride [POM]	A-III
62015398	Misoprostol	A-III
50077	Mitomycin C	A-III
70476823	Mitoxantrone hydrochloride [PAH-Derivative, POM]	A-III
139913	5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone	A-III
86220420	Nafarelin acetate [PAH-Derivative, POM]	A-III
3771195	Nafenopin [POM]	A-III
1405103	Neomycin sulfate	A-III
56391572	Netilmicin sulfate	A-III
61574	Niridazole	A-III
67209	Nitrofurantoin	A-III
59870	Nitrofurazone	A-III
555840	1-[(5-Nitrofurfurylidene)amino]-2-imidazolidinone	A-III
531828	N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	A-III
6533002	Norgestrel	A-III
79572	Oxytetracycline	A-III
115673	Paramethadione	A-III
52675	Penicillamine	A-III
57330	Pentobarbital sodium	A-III
63989	Phenacemide	A-III
62442	Phenacetin	A-III
94780	Phenazopyridine hydrochloride	A-III
3546109	Phenesterin	A-III
50066	Phenobarbital	A-III
59961	Phenoxybenzamine [POM]	A-III
63923	Phenoxybenzimidazole hydrochloride [POM]	A-III
54911	Pipobroman	A-III
18378897	Plicamycin [PAH-Derivative, POM]	A-III
366701	Procarbazine hydrochloride	A-III
57830	Progesterone	A-III
1160	Progestins including but not limited to:	A-III

71589	Medroxyprogesterone acetate	A-III
68224	Norethisterone	A-III
51525	Propylthiouracil	A-III
302794	all-trans-Retinoic acid	A-III
1167	Retinol/retinyl esters	A-III
81072	Saccharin	A-III
3810740	Streptomycin sulfate	A-III
18883664	Streptozotocin	A-III
54965241	Tamoxifen citrate [POM]	A-III
846504	Temazepam [POM]	A-III
64755	Tetracycline hydrochloride	A-III
50351	Thalidomide	A-III
154427	Thioguanine	A-III
49842071	Tobramycin sulfate	A-III
299752	Treosulfan	A-III
28911015	Triazolam [POM]	A-III
13647353	Trilostane	A-III
127480	Trimethadione	A-III
66751	Uracil mustard	A-III
26995915	Urofollitropin	A-III
99661	Valproate	A-III
143679	Vinblastine sulfate [POM]	A-III
2068782	Vincristine sulfate [POM]	A-III

Service/Speciation Sheet 2006-2007 AER

Service	Speciation
96	Surface Coating - Solvents
297	Crude Oil Evaporation - Vapor Composite FRT
532	Oil & gas extraction - well heads & cellars/oil&water separator
756	Oil and Gas Production Fugitives - Liquid Service
757	Oil and Gas Production Fugitives - Gas Service
783	Industrial Surface Coating - Solvent Based Paint
1447	Organic Solvent Evaporation - General
Ammonia Slip	Ammonia Slip
Corrosion Inhibitor	Corrosion Inhibitor
Demulsifier	Demulsifier
DGME	DGME
Diesel	Fuel Oil #2
Hydrazine	Hydrazine
Hydrochloric Acid	Hydrochloric Acid
LFC-1	Crude Oil Emulsion
LFC-2	LFC Sour Gas
LFC-3	LFC Fuel Gas
LFC-4	LFC Acid Gas
LFC-5	Wastewater
LFC-6	Treated Wastewater
LFC-7	Stabilized Crude
Lube Oil	Lube Oil
Methanol	Methanol
Phosphoric Acid	Phosphoric Acid
POP-1	POPCO Acid Gas
POP-10	Tail Gas
POP-2	Rich Amine
POP-3	POPCO Fuel Gas
POP-4	Rich Glycol
POP-5	Natural Gas/Sales Gas
POP-6	NGL
POP-7	POPCO Sour Gas
POP-8	POPCO Sour Water
POP-9	Stretford Solution

Service/Speciation Sheet 2006-2007 AER

Sodium Hydroxide (25%)	Sodium Hydroxide (25%)
Sodium Hydroxide (3%)	Sodium Hydroxide (3%)
Sulfur	Sulfur

60125	OTP Pump Seals		5	OTP Pump Seals - Plant Wide #5	380121	OTP Pump Seals	60125	OTP Pump Seals		Fugitive Components	0
60126	OTP Pump Seals		6	OTP Pump Seals - Plant Wide #6	380121	OTP Pump Seals	60126	OTP Pump Seals		Fugitive Components	0
60127	OTP Pump Seals		7	OTP Pump Seals - Plant Wide #7	380121	OTP Pump Seals	60127	OTP Pump Seals		Fugitive Components	0
60128	OTP Pump Seals		8	OTP Pump Seals - Plant Wide #8	380121	OTP Pump Seals	60128	OTP Pump Seals		Fugitive Components	0
60121	OTP Compressor Seals		1	OTP Compressor Seals - Plant Wide #1	380122	OTP Compressor Seals	60121	OTP Compressor Seals		Fugitive Components	0
60122	OTP Compressor Seals		2	OTP Compressor Seals - Plant Wide #2	380122	OTP Compressor Seals	60122	OTP Compressor Seals		Fugitive Components	0