FUGITIVE EMISSIONS ASSESSMENT 2022

Puma Energy - Milford Haven

On Behalf of Puma Energy

JER8971
FUGITIVE EMISSIONS ASSESSMENT 2022
2
0
30 January 2023

rpsgroup.com

Quality Management

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1 INTRODUCTION

1.1 Overview

1.1.1 RPS has been instructed by Puma Energy to undertake an assessment of the potential fugitive VOC emissions from their Milford Haven installation. This report assesses fugitive emissions from the installation during the year 2022. This assessment is required to comply with *Condition 3.3* and *4.2.1* of Environmental Permit *AP3830XQ/V011*. This requires Puma Energy to review their fugitive emissions from the installation on an annual basis and adopt measures to reduce them if appropriate.

1.1.2 Calculations have been based on storage tank inventory data for 2022, provided by Puma Energy.

1.1.3 This report quantifies the annual release rate using the recognised procedures of AP42 "*Compilation of Air Pollutant Emission Factors*" published by the US Environmental Protection Agency (US EPA).

1.1.4 This report addresses fugitive emissions emanating from product storage tanks only, as requested by Puma Energy. For the purposes of VOC annual emissions reporting, it is understood that Puma Energy follow the Energy Institute Protocol, 2nd Edition for all VOC losses with the exception of losses from tanks, which the Protocol recommends using Tanks 4.0.9.d to calculate. Prior to 2016, Puma Energy have used the last output from Tanks 4.0.9.d that was calculated when the refinery was still operational, to estimate fugitive emissions from tanks. As part of an improvement programme, Puma Energy have commissioned RPS to update this with current tank information and annual stock data to provide a more appropriate emission estimation methodology. The quantified data set collated within this report enables Puma Energy to review annual changes in fugitive emissions in response to changes in any operational procedures and management controls across the site.

1.1.5 The report should be read in conjunction with the Excel spreadsheet file *230125JER8971 Puma Energy Fugitive Emissions Data 2022 V1 R0* (Appendix A).

2 LEGISLATIVE AND POLICY CONTEXT

2.1 Environmental Permitting Requirements

2.1.1 EU Directive 96/61/EC concerning Integrated Pollution Prevention and Control ("the IPPC Directive"), which applied an integrated environmental approach to the regulation of certain industrial activities, was merged into EU Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control) ("the IED"). The IED is the main EU instrument for regulating pollutant emissions from industrial installations. The Environmental Permitting Regulations 2016 (as amended) implement the IED relating to installations in England and Wales.

2.1.2 The Regulations define activities that require an Environmental Permit (EP) from Natural Resources Wales (NRW).

2.1.3 The EP involves determination by the Regulator (NRW) of the appropriate controls for those industries to protect the environment through a single permitting process. To gain a permit, operators have to demonstrate in their applications, in a systematic way, that the techniques they are using or are proposing to use are the Best Available Techniques (BAT) for their installation and meet certain other requirements, taking account of relevant local factors.

2.1.4 The essence of BAT is that the techniques selected to protect the environment should achieve an appropriate balance between environmental benefits and the costs incurred by Operators. Indicative BAT standards are laid out in national and European guidance and where relevant, should be applied unless a different standard can be justified for a particular installation.

2.2 Pollution Inventory (PI)

2.2.1 The Pollution Inventory (PI) was created in 1998 and collects information on releases of pollutants and transfers of waste off-site from businesses that NRW regulate in Wales and the EA regulate in England.

2.2.2 Each relevant industrial activity is required to report annual mass emissions of a number of specified substances released to air, controlled waters and land, transferred off-site in wastewater, and waste transferred off-site. The data is currently held on the National Resources Wales Pollution Inventory database and is available to the public via the NRW website.

2.2.3 The information held within the PI is becoming increasingly important to meet a number of obligations:

- To provide clear public information about industrial pollution.
- To ensure focused and efficient industrial regulation; and
- To provide the Government and the National Resources Wales with the means to meet national and international environmental reporting requirements.

2.2.4 Reporting thresholds for the PI were assigned to all substances when the PI was set up. These are based on the need to capture nationally significant emissions and to restrict the burden of monitoring and reporting for industry. The reporting thresholds for the Puma Energy Milford Haven installation are presented in Table 2-1.

2.2.5 Where no emission of the substance occurred in the reporting year to that medium, this is entered on the reporting form as not applicable (N/A). Where the annual emission has been assessed and found to be below the indicated annual reporting threshold, this is entered as 'below reporting threshold' (BRT).

Table 2-1 Puma Energy Annual Reporting Level Threshold

Substance	Annual Reporting Level Threshold
Methane	10,000 kg
Benzene	1,000 kg
Total Non-Methane VOC	100,000 kg

3 ASSESSMENT METHODOLOGY

3.1 Outline of Methodology

3.1.1 The approach to this fugitive emissions assessment has involved addressing emissions emanating from product storage tanks.

3.1.2 The PI guidance provides for three methods of determining emissions:

- Measurement.
- Calculation; and
- Estimation.

3.1.3 One of the guidance documents recommended for use by NRW (formerly EAW), and which is commonly referenced throughout EA guidance documents is the US EPA (United States Environmental Protection Agency) document AP42 'Compilation of Air Pollution Emission Factors'. This has published emission factor data for a wide range of industries, including refinery operations. AP42 has been used as the basis of estimating fugitive emissions from the Puma Energy site, specifically:

- AP42 Section 7.1: Organic Liquid Storage Tanks; and
- AP42 Section 5.2: Transportation and Marketing of Petroleum Liquids.

3.1.4 The US EPA also publishes two other key documents:

- EPA-453/R-95-017: Protocol for Equipment Leak Emission Estimates; and
- EPA-450/2-90-001a: Air Emissions Species Manual.

3.1.5 Similarly, to the PI in the UK, the USA and Canada also require the reporting of certain hazardous substance emissions and to satisfy the requirements of the Canadian National Pollutant Release Inventory (NPRI) the CPPI Code of Practice (CoP) for Developing a Refinery Emission Inventory was prepared. The CPPI CoP refers to US EPA procedures for the speciation of Total Organic Carbon (TOC) emissions to provide specific information on reportable Volatile Organic Carbon (VOC).

3.2 Product Storage Tanks

3.2.1 Tank-loading operations result in the loss of organic vapours during the filling of the tank and as a result of evaporation from the liquid surface. The AP42 procedures allow estimation of these losses by applying standard "emission factors" to the various operations undertaken at the installation. For bulk oil storage tanks, the US EPA has developed sophisticated procedures for estimating losses that consider factors such as the tank roof arrangements, tank fittings and local weather conditions.

3.2.2 The TOC emission from each tank was calculated by using the US EPA software package 'Tanks' Version 4.0.9d. The equations used in this programme are documented in AP42 Section 7.1: Organic Liquid Storage Tanks.

3.2.3 'Tanks' allows the user to enter specific information about a storage tank, the liquid contents and the location of the tank and generate an air emissions report based on the input information.

3.2.4 The 'Tanks' programme contains VOC speciation data, and this was used to determine the vapour composition within each storage tank. Additional speciation was obtained from *Section 3.20* of *EPA-450/2-90-001a*.

Calculation Details

- In calculating the tank emissions, the yearly average temperature has been sourced from timeanddate.com. The wind speed has been sourced from adjacent South Hook LNG site. Solar insulation has been sourced from POWER | Data Access Viewer (nasa.gov).
- Emissions from the storage tanks are based upon actual year 2022 data that gives the liquid type and throughput for each tank: and
- Monthly throughput data for the storage tanks was provided by Puma Energy.

3.3 Limitations

3.3.1 The Tanks 4.0.9.d programme contains a set pick list of colours for the shell and roof of the tanks: White, light grey, medium grey, red (primer), aluminium diffuse / specular. A number of the tanks at the Puma Energy site are painted in a different colour to those listed in the programme. The colour of the tank affects the reflectance and emissivity of the tank and therefore affects the fugitive emissions. The nearest alternative colour (available in the programme) based on a comparison of the Solar Reflective Index (SRI) to that of the tank colour SRI was derived using the information in Table 3-2 and entered into the programme as follows (Table 3-1):

Table 3-1 Tank Colour Substitutions

Colour of tank at Puma Energy	Nearest colour in Table 3-2	SRI	Nearest colour and SRI (from Table 3-2) to options in Programme	Colour of tank entered into Tank 4.0.9d (i.e. nearest SRI)
Mid Blue	Roman blue	33	Slate Grey 41	Grey / Medium
Light yellow	Almond	76	Snow White 79	White
Mid green	Colony Green	36	Slate Grey 41	Grey / Medium
Dark Brown	Colonial Red	37	Slate Grey 41	Grey / Medium

Table 3-2 Solar Reflectance Index by Colour

Color	R	SRI
Aluminum Zinc (GL)	0.67	56
Oyster White (WH)	0.52	59
Polar White (PW)	0.58	69
Light Stone (LS)	0.50	58
Hawaiian Blue (BL)	0.32	33
Sahara Tan (ST)	0.36	38
Ash Grey (AS)	0.47	55
Burnished Bronze (BR)	0.28	29
Colony Green (GR)	0.34	36
Fern Green (FG)	0.27	27
Almond (AL)	0.63	76
Snow White (SW)	0.65	79
Brownstone (BS)	0.47	54
Copper Metallic (CM)	0.46	51
Scarlet Red (SR)	0.42	47
Harbor Blue (HB)	0.28	30
Hunter Green (HG)	0.35	39
Roman Blue (RB)	0.32	33
Colonial Red (CR)	0.34	37
Everglade (EG)	0.33	36
Slate Grey (SG)	0.37	41

Revision 5/24/2015

Source: http://www.deansteelbuildings.com/products/panels/sr-sri-by-color/

3.3.2 Tank 803 (was recorded as 10.6 m diameter and 11m height but the programme will only accept a volume, height and diameter of within 10%). Therefore, height was increased by ~10% (to 11.8 m) to give a more conservative value i.e., bigger volume / surface area.

3.3.3 Tanks 4.0.9.d also has a set pick list for the tank stock products. The following products stored on the Puma Energy site were not present on the pick list and therefore were substituted for a similar product as advised by Puma Energy:

- Ethanol – was entered as Gasoline. Gasoline (RVP 12) was used with product speciation as "Gasoline oxygenated with ethanol"
- Unleaded – was entered as Gasoline (RVP 12) with product speciation profile "Gasoline"
- Slops – was entered as Jet Kerosene
- VRU Slops – was entered as unleaded
- Fuel Oil (Residual oil no.6)– was entered as DFO (Distillate Fuel Oil)

4 FUGITIVE EMISSIONS FROM STORAGE TANKS

4.1 Fugitive Tank Emission Results

4.1.1 The results of the tanks' fugitive emission calculations are summarised in Table 4-1 below which presents the output from the 'Tanks' programme.

Table 4-1 Total VOC from each Tank

Tank Number	Input (m^3)	Output (m^3)	Turnover	VOC (kg/yr)
001	113	0	0.0015	2,884.90
002	0	0	0	0
003	0	0	0	0
004	0	2,331	0	2,884.85
005	0	0	0	0
006	0	0	0	0
007	2,403	19,114	0.06309	2,886.09
008	0	0	0	0
009	0	122	0	2,595.25
010	0	10	0	2,595.25
012	0	0	0	0
101** ****	0	0	0	2.86
102***	21,433	26,554	1.6227	8.8
103	19,614	14,236	2.2863	37.89
106	0	0	0	0
108** ****	0	0	0	40.49
201	27,622	15,565	2.0215	476.21
202	30,018	28,140	2.2036	408.87
203	26,672	20,155	1.9528	389.24
204	24,149	17,727	1.7696	578.88
205**	25,879	38,390	1.8951	449.49
206	19,740	29,914	0.8771	480.34
207	15,642	36,239	0.6935	260.32
208	65,792	46,382	2.9216	743.85
209	32,359	42,753	1.4357	425.95
256	0.0016	0	0.0016	803.52
257	0.1870	24	1	750.13
301***	28,863	42,978	1.6435	16.19
302****	0	0	0	2,281.18
303	0	0	0	0
304	10,667	10,667	0.8720	9,925
305	0	0	0	0
306	23,684	22,132	1.3727	18,098.97
307	0	0	0	0
308	0	0	0	0
309	49,702	32,268	2.8545	20,794
401	0	0	0	0

Tank Number	Input (m^3)	Output (m^3)	Turnover	VOC (kg/yr)
402****	0	0	0	2,394.37
403	18,215	16,396	1.5316	15,118
404	21,703	20,534	1.8332	480.74
405****	0	0	0	2,394.37
601	24,177	24,310	1.5780	366.88
602	17,206	19,108	1.1252	35.33
603* ****	0	0	0	1,026.74
604* ****	0	0	0	1,026.74
605* ****	0	0	0	1,028.63
606	0	0	0	0
607**	468	37	0.0202	1,330.47
608	49,622	49,864	2.1464	452.06
609* ****	0	0	0	740.32
610* ****	0	0	0	746.47
702** ****	0	0	0	201.00
703**	1	5	0.0014	47.44
704**	635	248	0.7180	77.61
705	0	0	0	0
706**	7	565	0.0011	88.57
713	0	0	0	0
803*	0	0	0	85.66
TOTAL	556,386	576,768	36.44	**98,461.68**

*During 2022 these tanks were filled or partially filled with fuel oil (residual oil no.6); residual oil no.6 has been treated as Distillate Fuel Oil in the assessment.

**During 2022 these tanks were filled or partially filled with slops; slops have been treated as jet kerosene in the assessment.

*** During 2022 these tanks had two different fuel types.

****During 2022 these tanks had stock however the input, output and turnover was zero.

4.2 Summary of Tank Emissions

4.2.1 Table 4-2 presents a summary of the emissions from all tanks at the Puma Energy Milford Haven installation.

Table 4-2 Summary of Tank Emissions

Component	Emission (kg/year)
PI Reportable VOC:	
Methane	0
Benzene	546.0
Other non-methane VOC	97,915.68
Total	**98,461.68**

5 FUGITIVE EMISSION INVENTORY

5.1 Summary of Total Fugitive Emissions

5.1.1 Table 5-1 summarises the total VOC emission from the Puma Energy Milford Haven installation. This is the data as required for Pollution Inventory reporting.

Table 5-1 Total Fugitive Emissions

Substance	Annual Reporting Level Threshold (2022)	2022 Emissions (kg/year)	Method
Methane	10,000 kg	0.0 (BRT)	Calculation
Benzene	1,000 kg	541.5 (BRT)	Calculation
1,2,4-Trimethylbenzene	n/a	308.5	Calculation
Isomers butene	n/a	5,685.05	Calculation
Isomers pentene	n/a	3025.54	Calculation
Isomers xylene	n/a	682.8	Calculation
Other Non-Methane VOCs*	**100,000 kg**	**97,915.68**	**Calculation**

BRT – Below Reporting Threshold

* the total of all non-methane VOCs excluding Benzene as that is reported separately.

6 CONCLUSIONS

6.1.1 The VOC emission data calculated within this report show an increase in total VOC emissions during 2022 (98,461.68 kg/yr) compared to the previous data for 2021 (93,838.85 kg/yr). The increase can be attributed to a number of factors including:

- The solar insulation factor was 5% higher in 2022 (1017.9 btu/(ft.ft.day)) compared to 2021 (966.4 btu/(ft.ft.day)), therefore more volatilisation of hydrocarbons in the tanks.
- The average temperature was 1.3% higher in 2022 (53.2 F) than in 2021 (52.5 F), therefore more volatilisation of the hydrocarbons in the tanks.
- There were lower average liquid heights in 2022 than 2021, therefore more headspace in the tanks for the hydrocarbons to volatilise.

6.1.2 An evaluation of the 2022 data indicates that there was a higher turnover in 2022 (36.44) than in 2021 (35.75). The input and output volumes decreased in 2022 compared to 2021.

6.1.3 The summary report shows that the calculated fugitive emissions from site for methane and benzene are below their respective reporting threshold (BRT) for the pollution inventory.

6.1.4 The summary report also provides calculated fugitive emissions for other non-methane VOCs (total VOCs minus methane and benzene) of 97,915.68 kg/yr which is below the reporting threshold of 100,000 kg/yr and therefore does not need to be reported on the annual pollution inventory form.

6.2 Recommendations

6.2.1 It is recommended that a full site survey is carried out to collect relevant information for pipelines calculations i.e., the number of valves, flanges and compressor seals and also data on the loadings (ship / train / lorry exports) and wastewater emissions (volume of effluent).

6.2.2 It is also recommended that a programme of tank painting and improvement is developed and integrated into the business development plan for the facility, with the aim of reducing fugitive releases. Global climate change is likely to continue to increase the solar insolation factor and average temperatures and therefore increase total VOC emissions. High reflective tanks would support in decreasing volatilisation of hydrocarbons in the tanks and reducing VOC emissions in the future.

APPENDICES

Appendix A

230125 JER8971 Puma Energy Fugitive Emissions Data 2022 V1 R0

Puma Energy (UK) Limited

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DATA COLLECTION
for
FUGITIVE EMISSIONS ASSESSMENT

2022

SITE CONDITIONS:			Source of data:
Daily Average Ambient Temperature:	53.2	F	https://www.timeanddate.com/weather/@7296308/historic?month=5&year=2022
Annual Average Maximum Temperature:	66.4	F	Weather in May 2022 in Milford Haven, Wales, United Kingdom (timeanddate.com)
Annual Average Minimum Temperature:	40.9	F	Weather in May 2022 in Milford Haven, Wales, United Kingdom (timeanddate.com)
Average Wind Speed:	14.9	mph	South Hook Data from Eamon
Annual Average Solar Insulation Factor:	1017.9	btu/(ft.ft.day)	POWER | Data Access Viewer (nasa.gov)
Atmospheric Pressure:	14.9	psia	Weather in May 2022 in Milford Haven, Wales, United Kingdom (timeanddate.com)

1 kWh/m 2 / = 317.1 btu/ft 2 /day

TEMPERATURE

Taken from https://www.timeanddate.

2022	temperature degree F		
	min	**max**	**avg**
January	32.0	55.4	44.6
February	37.4	53.6	48.2
March	33.8	62.6	48.2
April	33.8	62.6	48.2
May	46.4	64.4	53.6
June	46.4	75.2	57.2
July	50.0	86.0	62.6
August	50.0	86.0	64.4
September	48.2	71.6	59.0
October	42.8	64.4	57.2
November	42.8	59.0	51.8
December	26.6	55.4	42.8
	40.9	66.4	53.2

SOLAR INSOLATION POWER | Data Access Viewer (nasa.gov)

2022	kW-hr/m^	btu/ft 2 /day
January	0.85	269.535
February	1.57	497.847
March	2.73	865.683
April	4.44	1407.924
May	5.71	1810.641
June	5.79	1836.009
July	5.65	1791.615
August	4.7	1490.37
September	3.45	1093.995
October	1.91	605.661
November	1.02	323.442
December	0.65	206.115
Avg	3.21	1017.891

2022	temperature degree C		
	min	**max**	**avg**
January	0	13	7
February	3	12	9
March	1	17	9
April	1	17	9
May	8	18	12
June	8	24	14
July	10	30	17
August	10	30	18
September	9	22	15
October	6	18	14
November	15	6	11
December	-3.0	13	6.0

WIND SPEED

Taken from SHLNG from Eamon

2022	avg knots	avg mph
Jan	12.4	14.2
Feb	22.3	25.7
March	12.7	14.6
April	11.2	12.9
May	10.6	12.2
June	10.9	12.5
July	9.8	11.3
August	9.0	10.4
Sept	12.2	14.1
Oct	15.9	18.3
Nov	18.5	21.3
Dec	11.1	12.8
	13.1	15.0

ATMOPSHERIC PRESSURE

2022	mbar	psia
	avg	
Jan	1026.0	14.9
Feb	1015.0	14.7
March	1020.0	14.8
April	1016.0	14.7
May	1018.0	14.8
June	1015.0	14.7
July	1021.0	14.8
August	1020.0	14.8
Sept	1013.0	14.7
Oct	1011.0	14.7
Nov	1005.0	14.6
Dec	1010.0	14.6
Average	1015.8	14.7

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 001

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft	
Shell Diameter	73	m	239.5	ft	
Tank Construction	welded	Welded/Riveted			
Maximum Liquid Height	17.63	m	57.8	ft	
Tank Volume	80,000	m^3			
Working Volume	73,338	m^3	19373919	US Gal	
Is Tank Heated?	N	Y/N			
Shell: External Colour/Shade:	light grey	note 1			
External Condition:	Good	Good/Poor			
Internal Shell Condition:	Light Rust	note 2			
Breather Vent Settings: Vacuum Settings:	n/a	psig			
Pressure Settings:	n/a	psig			

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year: 1

LIQUID DETAILS:

	2022 Turnover												
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
Distillate													
Crude Oil													PD/CO/OL
Organic liquid													
Multi-Component?													S/M
Stock Level:	4005866	4005866	4005866	4005866	4005866	4005866	4005866	4005866	4005866	4,005,866	4,119,175	4,119,175	**I**
Stock Level	4,006	4,006	4,006	4,006	4,006	4,006	4,006	4,006	4,006	4,006	4,119	4,119	m^3
Stock Level	880,410	880,410	880,410	880,410	880,410	880,410	880,410	880,410	880,410	880,410	905,313	905,313	gal
Input:	0	0	0	0	0	0	0	0	0	0	113	0	m^3 113
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3 0
Turnover:	0.0015												
Ave Liq Height:	3.15												ft
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil: 1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)

Petroleum Distillates:
2. Distillate Fuel Oil No.2
3. Jet Kerosene
4. Jet Naphtha (JP-4)
5. Residual Oil No.6
6. Gasoline (RVP 6)
7. Gasoline (RVP 7)
8. Gasoline (RVP 8)
9. Gasoline (RVP 9)
10. Gasoline (RVP 10)
11. Gasoline (RVP 11)
12. Gasoline (RVP 12)
13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	6360.006804		2,884.90
Hexane (-n)	69.48752037		31.52
Benzene	63.48623255		28.80
Isooctane	0.000116058		0.00
Toluene	29.78889373		13.51
Ethylbenzene	3.900106265		1.77
Xylene (-m)	11.36237568		5.15
Isopropyl benzene	0.430899186		0.20
1,2,4 - Trimethylbenzene	0.6022224		0.27
Cyclohexane	76.89004805		34.88
Methane	0		0.00
Unidentified Components	6104.058		2,768.80

Unidentified components comprise:

		%	Emission kg/yr
Total	2,768.80		
i-hexane		4.78	132.35
i-heptane		1.53	42.36
i-butene		1.11	30.73
i-pentane		26.79	741.76
propane		1.25	34.61
n butane		22.95	635.44
iso butane		9.83	272.17
t-2 butene		1.21	33.50
cis-2 butene		0.98	27.13
n pentane		8.56	237.01
1 pentene		1.02	28.24
2 methyl 1 butene		1.93	53.44
trans 2 pentene		1.61	44.58
2 methyl 2 butene		1.04	28.80
3 methyl pentane		2.34	64.79
methylcyclopentane		1.66	45.96
2,2 dimethylbutane		1.23	34.06
other		10	276.88
	Total	100	2,763.82

Total	
Methane	0.00
Benzene	28.80
Butene	173.60
1,2,4 -Trun	173.60
Pentene	72.82
Xylene	5.15

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 002

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	73	m	239.4	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.68	m	58.0	ft
Tank Volume	80,000	m^3		
Working Volume	73,629	m^3	19450794	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:		note 1	Have assumed grey/light as per Tank 001	
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 **Crude Oil**

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	0		0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.00
Butene	0.00
1,2,4 -Trun	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 003

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height		19.5	m	64.0 ft
Shell Diameter		73	m	239.5 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		17.58	m	57.7 ft
Tank Volume		80,000	m^3	
Working Volume		73,196	m^3	19336407 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	light grey	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:		white	note 1
	Paint Condition:		good	Good/Poor
	Type:		flat	Cone/Dome/Flat
	Height (of cone/dome):			m
Internal Floating Roof details:				
	Self Supporting Roof:			Y/N
	Number of Columns (supporting roof):			
	Effective Column Diameter:			m
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
		Vapour Mounted:		
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:		
	Deck Characteristics:			
	Deck Type:			Bolted/Welded
	Deck Fittings Category:			note 3
External Floating Roof details:				
	Roof Type:		deck	Pontoon/Deck
	Roof Fitting Category:		typical	note 3
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:	x	
		Liquid Mounted:		
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:	x	

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.00
Butene	0.00
1,2,4 -Trun	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 004

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	73	m	239.5	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.63	m	57.8	ft
Tank Volume	80,000	m^3		
Working Volume	73,425	m^3	19396903	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust		
	Dense Rust		
	Gunite Lining		

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	2415956	438735	84690	84690	84690	84690	84690	84690	84690	84,690	84,690	84,690	I	
Stock Level	2,416	439	85	85	85	85	85	85	85	85	85	85	m^3	
Stock Level	530,979	96,425	18,613	18,613	18,613	18,613	18,613	18,613	18,613	18,613	18,613	18,613	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	1,977	354	0	0	0	0	0	0	0	0	0	m^3	2,331
Turnover:	0.0000													
Ave Liq Height:	0.24												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	3	6	6	6	6	6.0	6.0	6.0	6.0	6.0	6	6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	6359.890746		2,884.85
Hexane (-n)	69.48705614		31.52
Benzene	63.4855362		28.80
Isooctane	0		0.00
Toluene	29.78773315		13.51
Ethylbenzene	3.899642033		1.77
Xylene (-m)	11.36075087		5.15
Isopropyl benzene	0.430783128		0.20
1,2,4 - Trimethylbenzene	0.601839409		0.27
Cyclohexane	76.88923564		34.88
Methane	0		0.00
Unidentified Components	6103.948169		2,768.75

Unidentified components comprise:			
		%	Emission kg/yr
Total	2,768.75		
i-hexane		4.78	132.35
i-heptane		1.53	42.36
i-butene		1.11	30.73
i-pentane		26.79	741.75
propane		1.25	34.61
n butane		22.95	635.43
iso butane		9.83	272.17
t-2 butene		1.21	33.50
cis-2 butene		0.98	27.13
n pentane		8.56	237.01
1 pentene		1.02	28.24
2 methyl 1 butene		1.93	53.44
trans 2 pentene		1.61	44.58
2 methyl 2 butene		1.04	28.80
3 methyl pentane		2.34	64.79
methylcyclopentane		1.66	45.96
2,2 dimethylbutane		1.23	34.06
other		10	276.88
	Total	100	2,763.77

Total	
Methane	0.00
Benzene	28.80
Butene	173.60
1,2,4 -Trun	0.27
Pentene	290.44
Xylene	5.15

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 005

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	x

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	73	m	239.5	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.58	m	57.7	ft
Tank Volume	80,000	m^3		
Working Volume	73,187	m^3	19334029	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust	
	Dense Rust	
	Gunite Lining	

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	I	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.00
Butene	0.00
1,2,4 -Trur	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 006

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	73	m	239.5	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.58	m	57.7	ft
Tank Volume	80,000	m^3		
Working Volume	73,074	m^3	19304178	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal:				
None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate Crude Oil Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude				note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	16	16	16	16	16	16	16	16	16	16	16	16	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.00
Butene	0.00
1,2,4 -Trim	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 007

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	73	m	239.5	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.98	m	59.0	ft
Tank Volume	40,000	m^3		
Working Volume	37,602	m^3	9933433	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White; Aluminium/Specular; Aluminium/Diffuse; Grey/Light; Grey/Medium; Red/Primer

Note 2: Condition Options: Light Rust; Dense Rust; Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	18594966	20635099	20997773	1883729	1883729	1883729	1883729	1883729	1883729	1,883,729	1,883,729	1,883,729	**I**	
Stock Level	18,595	20,635	20,998	1,884	1,884	1,884	1,884	1,884	1,884	1,884	1,884	1,884	m^3	
Stock Level	4,086,806	4,535,187	4,614,895	414,006	414,006	414,006	414,006	414,006	414,006	414,006	414,006	414,006	gal	
Input:	0	2040	363	0	0	0	0	0	0	0	0	0	m^3	2,403
Output:	0	0	0	19,114	0	0	0	0	0	0	0	0	m^3	19,114
Turnover:	0.0639													
Ave Liq Height:	5.04												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	5.4	7.5	8.9	11	11	11	11	11	11	11	11	11	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil: 1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)

Petroleum Distillates:
2. Distillate Fuel Oil No.2
3. Jet Kerosene
4. Jet Naphtha (JP-4)
5. Residual Oil No.6
6. Gasoline (RVP 6)
7. Gasoline (RVP 7)
8. Gasoline (RVP 8)
9. Gasoline (RVP 9)
10. Gasoline (RVP 10)
11. Gasoline (RVP 11)
12. Gasoline (RVP 12)
13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	6362.627999		2,886.09
Hexane (-n)	69.49800515		31.52
Benzene	63.50195972		28.80
Isooctane	0.002737253		0.00
Toluene	28.68584271		13.01
Ethylbenzene	3.910591045		1.77
Xylene (-m)	11.39907241		5.17
Isopropyl benzene	0.433520381		0.20
1,2,4 - Trimethylbenzene	0.610872343		0.28
Cyclohexane	76.90839642		34.89
Methane			0.00
Unidentified Components	6106.547738		2,769.93

Unidentified components comprise:			
		%	Emission kg/yr
Total	2,769.93		
i-hexane		4.78	132.40
i-heptane		1.53	42.38
i-butene		1.11	30.75
i-pentane		26.79	742.06
propane		1.25	34.62
n butane		22.95	635.70
iso butane		9.83	272.28
t-2 butene		1.21	33.52
cis-2 butene		0.98	27.15
n pentane		8.56	237.11
1 pentene		1.02	28.25
2 methyl 1 butene		1.93	53.46
trans 2 pentene		1.61	44.60
2 methyl 2 butene		1.04	28.81
3 methyl pentane		2.34	64.82
methylcyclopentane		1.66	45.98
2,2 dimethylbutane		1.23	34.07
other		10	276.99
	Total	100	2,764.94

Total	
Methane	0.00
Benzene	28.80
Butene	173.67
1,2,4 -Trun	0.28
Pentene	72.85
Xylene	5.17

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 008

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	73	m	239.5	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.58	m	57.7	ft
Tank Volume	80,000	m^3		
Working Volume	73,031	m^3	19292818	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	14	14	14	14	14	14	14	14	14	14	14	14	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 **Crude Oil**

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total emissions	0.00 kg/yr
Hexane (-n)	0.00
Benzene	0.00
Isooctane	0.00
Toluene	0.00
Ethylbenzene	0.00
Xylene (-m)	0.00
Isopropyl benzene	0.00
1,2,4 - Trimethylbenzene	0.00
Cyclohexane	0.00
Methane	0.00
Unidentified Components	0.00

Unidentified components comprise:	kg/yr
i-hexane	0.00
i-heptane	0.00
i-butene	0.00
i-pentane	0.00
propane	0.00
n butane	0.00
iso butane	0.00
t-2 butene	0.00
cis-2 butene	0.00
n pentane	0.00
1 pentene	0.00
2 methyl 1 butene	0.00
trans 2 pentene	0.00
2 methyl 2 butene	0.00
3 methyl pentane	0.00
methylcyclopentane	0.00
2,2 dimethylbutane	0.00
other	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 009

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0 ft
Shell Diameter	52	m	170.6 ft
Tank Construction	welded	Welded/Riveted	
Maximum Liquid Height	17.58	m	57.7 ft
Tank Volume	80,000	m^3	
Working Volume	37,432	m^3	9888524 US Gal
Is Tank Heated?	N	Y/N	
Shell: External Colour/Shade:	light grey	note 1	
External Condition:	Good	Good/Poor	
Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings: Vacuum Settings:	n/a	psig	
Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	122483	122483	122483	122483	122483	122483	122483	122483	122483	122,483	0	0	**I**	
Stock Level	122	122	122	122	122	122	122	122	122	122	0	0	m^3	
Stock Level	26,919	26,919	26,919	26,919	26,919	26,919	26,919	26,919	26,919	26,919	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	122	0	m^3	122
Turnover:	0.0000													
Ave Liq Height:	0.16												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 crude oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	5721.45505		2,595.25
Hexane (-n)	62.5116191		28.36
Benzene	57.11256		25.91
Isooctane	0		0.00
Toluene	26.7975006		12.16
Ethylbenzene	3.50817765		1.59
Xylene (-m)	10.2203053		4.64
Isopropyl benzene	0.38753909		0.18
1,2,4 - Trimethylbenzene	0.54142394		0.25
Cyclohexane	69.1707331		31.38
Methane			0.00
Unidentified Components	5491.20519		2,490.81

Unidentified components comprise:			
		%	Emission kg/yr
Total	2,490.81		
i-hexane		4.78	119.06
i-heptane		1.53	38.11
i-butene		1.11	27.65
i-pentane		26.79	667.29
propane		1.25	31.14
n butane		22.95	571.64
iso butane		9.83	244.85
t-2 butene		1.21	30.14
cis-2 butene		0.98	24.41
n pentane		8.56	213.21
1 pentene		1.02	25.41
2 methyl 1 butene		1.93	48.07
trans 2 pentene		1.61	40.10
2 methyl 2 butene		1.04	25.90
3 methyl pentane		2.34	58.28
methylcyclopentane		1.66	41.35
2,2 dimethylbutane		1.23	30.64
other		10	249.08
	Total	100	2,486.33

Total	
Methane	0.00
Benzene	25.91
Butene	156.17
1,2,4 -Trun	0.25
Pentene	65.51
Xylene	4.64

	2022
Total Emissio	5721.455
Hexane (-n)	62.51162
Benzene	57.11256
Isooctane	0
Toluene	26.7975
Ethylbenzene	3.508178
Xylene (-m)	10.22031
Isopropyl benz	0.387539
1,2,4 - Trimeth	0.541424
Cyclohexane	69.17073
Methane	
Unidentified C	5491.205

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 010

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	52	m	170.6	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.68	m	58.0	ft
Tank Volume	80,000	m^3		
Working Volume	73,633	m^3	19451851	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust	
	Dense Rust	
	Gunite Lining	

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:	x			
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	60945	50661	50661	50661	50661	50661	50661	50661	50661	50,661	50,661	50,661	I	
Stock Level	61	51	51	51	51	51	51	51	51	51	51	51	m^3	
Stock Level	13,395	11,134	11,134	11,134	11,134	11,134	11,134	11,134	11,134	11,134	11,134	11,134	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	10	0	0	0	0	0	0	0	0	0	0	m^3	10
Turnover:	0.0000													
Ave Liq Height:	0.08												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	13.2	6	6	6	6	6	6	6	6	6	6	6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	5721.455		2,595.25
Hexane (-n)	62.51161914		28.36
Benzene	57.11255996		25.91
Isooctane	0		0.00
Toluene	26.79750062		12.16
Ethylbenzene	3.508177653		1.59
Xylene (-m)	10.22030535		4.64
Isopropyl benzene	0.387539095		0.18
1,2,4 - Trimethylbenzene	0.541423943		0.25
Cyclohexane	69.17073311		31.38
Methane			0.00
Unidentified Components	5491.205188		2,490.81

Unidentified components comprise:			
		%	Emission kg/yr
Total	2,490.81		
i-hexane		4.78	119.06
i-heptane		1.53	38.11
i-butene		1.11	27.65
i-pentane		26.79	667.29
propane		1.25	31.14
n butane		22.95	571.64
iso butane		9.83	244.85
t-2 butene		1.21	30.14
cis-2 butene		0.98	24.41
n pentane		8.56	213.21
1 pentene		1.02	25.41
2 methyl 1 butene		1.93	48.07
trans 2 pentene		1.61	40.10
2 methyl 2 butene		1.04	25.90
3 methyl pentane		2.34	58.28
methylcyclopentane		1.66	41.35
2,2 dimethylbutane		1.23	30.64
other		10	249.08
	Total	100	2,486.33

Total	
Methane	0.00
Benzene	25.91
Butene	156.17
1,2,4 -Trun	0.25
Pentene	65.51
Xylene	4.64

2022

Total Emissio	5,721.46
Hexane (-n)	62.51161914
Benzene	57.11255996
Isooctane	0
Toluene	26.79750062
Ethylbenzene	3.508177653
Xylene (-m)	10.22030535
Isopropyl benz	0.387539095
1,2,4 - Trimeth	0.541423943
Cyclohexane	69.17073311
Methane	
Unidentified Cc	5491.205188

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 012

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0 ft
Shell Diameter	52	m	170.6 ft
Tank Construction	welded	Welded/Riveted	
Maximum Liquid Height	17.68	m	58.0 ft
Tank Volume	80,000	m^3	
Working Volume	73,633	m^3	19451851 US Gal
Is Tank Heated?	N	Y/N	
Shell: External Colour/Shade:	light grey	note 1	
External Condition:	Good	Good/Poor	
Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings: Vacuum Settings:	n/a	psig	
Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal:	Mechanical Shoe:			
	Liquid Mounted:			
	Vapour Mounted:			
Secondary Seal:	None:			
	Shoe Mounted:			
	Rim Mounted:			
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal:	Mechanical Shoe:			
	Liquid Mounted:	x		
Secondary Seal:	None:			
	Shoe Mounted:			
	Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	15	15	15	15	15	15	15	15	15	15	15	15	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.00
Butene	0.00
1,2,4 -Trun	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 101

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	x
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height		19.5	m	64.0 ft
Shell Diameter		29	m	95.1 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		18.9	m	62.0 ft
Tank Volume		12,700	m^3	
Working Volume		12,684	m^3	3350770 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	grey/medium	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust		
	Dense Rust		
	Gunite Lining		

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:		white	note 1
	Paint Condition:		good	Good/Poor
	Type:		cone	Cone/Dome/Flat
	Height (of cone/dome):		3	m
Internal Floating Roof details:				
	Self Supporting Roof:		Y	Y/N
	Number of Columns (supporting roof):			
	Effective Column Diameter:			m
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:	x	
		Liquid Mounted:		
		Vapour Mounted:	x	
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:	x	
	Deck Characteristics:			
	Deck Type:		welded	Bolted/Welded
	Deck Fittings Category:		typical	note 3
External Floating Roof details:				
	Roof Type:			Pontoon/Deck
	Roof Fitting Category:			note 3
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:		

if can only have one option then go with mechanical shoe. If can have both, then need to have vapour mounted on all other floating roof tanks (internal and external)

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	816206	816206	816206	816206	816206	816206	816206	816206	816206	816,206	816,206	816,206	I	
Stock Level	816	816	816	816	816	816	816	816	816	816	816	816	m^3	
Stock Level	179,386	179,386	179,386	179,386	179,386	179,386	179,386	179,386	179,386	179,386	179,386	179,386	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	4.05												ft	
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 slops (modelled as jet kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	6.305404999		2.86
Hexane (-n)	0.089421658		0.04
Benzene	0.04347356		0.02
Isooctane			0.00
Toluene	0.405110606		0.18
Ethylbenzene	0.125991035		0.06
Xylene (-m)	0.255868352		0.12
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	5.385539786		2.44

Unidentified components comprise:			
		%	Emission kg/yr
Total	2.44		
i-hexane		4.78	0.12
i-heptane		1.53	0.04
i-butene		1.11	0.03
i-pentane		26.79	0.65
propane		1.25	0.03
n butane		22.95	0.56
iso butane		9.83	0.24
t-2 butene		1.21	0.03
cis-2 butene		0.98	0.02
n pentane		8.56	0.21
1 pentene		1.02	0.02
2 methyl 1 butene		1.93	0.05
trans 2 pentene		1.61	0.04
2 methyl 2 butene		1.04	0.03
3 methyl pentane		2.34	0.06
methylcyclopentane		1.66	0.04
2,2 dimethylbutane		1.23	0.03
other		10	0.24
	Total	100	2.44

Total	
Methane	0.00
Benzene	0.02
Butene	0.15
1,2,4 -Trur	0.00
Pentene	0.06
Xylene	0.12

2022 annual

Total Emissio	6.305404999
Hexane (-n)	0.089421658
Benzene	0.04347356
Isooctane	
Toluene	0.405110606
Ethylbenzene	0.125991035
Xylene (-m)	0.255868352
Isopropyl benzene	
1,2,4 - Trimethylbenzene	
Cyclohexane	
Methane	
Unidentified C	5.385539786

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 102

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	x
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	25	m	82.0	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.8	m	58.4	ft
Tank Volume	13,000	m^3		
Working Volume	13,208	m^3	3489197	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light yellow	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White, Aluminium/Specular, Aluminium/Diffuse, Grey/Light, Grey/Medium, Red/Primer

Note 2: Condition Options: Light Rust, Dense Rust, Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	cone	Cone/Dome/Flat	
Height (of cone/dome):	3	m	
Internal Floating Roof details:			
Self Supporting Roof:	Y	Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:	x		if can only have one option then go with mechanical shoe. If can have bo floating roof tanks (internal and external)
Liquid Mounted:			
Vapour Mounted:	x		
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:	x		
Deck Characteristics:			
Deck Type:	welded	Bolted/Welded	
Deck Fittings Category:	typical	note 3	
External Floating Roof details:			
Roof Type:		Pontoon/Deck	
Roof Fitting Category:		note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	5134940	0	0	0	0	1590471	143232	10528425	12578874	123,918	7,530,996	14,211	**l**	
Stock Level	5,135	0	0	0	0	1,590	143	10,528	12,579	124	7,531	14	m^3	
Stock Level	1,128,558	0	0	0	0	349,554	31,480	2,313,940	2,764,588	27,235	1,655,164	3,123	gal	
Input:	0	0	0	0	0	1590	0	10385	2050	0	7407	0	m^3	21,433
Output:	0	5,135	0	0	0	0	1,447	0	0	12,455	0	7,517	m^3	26,554
Turnover:	1.6227													
Ave Liq Height:	20.97												ft	
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Kerosene	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.8	8.5	8.5	8.5	8.5	21.5	18.6	20.4	15.1	14.8	10.3	8	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)		
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)	2. Diesel
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)	
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)	
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)	

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Kerosene

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	2.37236855		1.08
Hexane (-n)	0.00526544		0.00
Benzene	0.00255426		0.00
Isooctane			0.00
Toluene	0.02507443		0.01
Ethylbenzene	0.00931975		0.00
Xylene (-m)	0.01994704		0.01
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	2.31020763		1.05

Unidentified components comprise:			
		%	Emission kg/yr
Total	8.53		
i-hexane		4.78	0.41
i-heptane		1.53	0.13
i-butene		1.11	0.09
i-pentane		26.79	2.29
propane		1.25	0.11
n butane		22.95	1.96
iso butane		9.83	0.84
t-2 butene		1.21	0.10
cis-2 butene		0.98	0.08
n pentane		8.56	0.73
1 pentene		1.02	0.09
2 methyl 1 butene		1.93	0.16
trans 2 pentene		1.61	0.14
2 methyl 2 butene		1.04	0.09
3 methyl pentane		2.34	0.20
methylcyclopentane		1.66	0.14
2,2 dimethylbutane		1.23	0.10
other		10	0.85
	Total	100	8.51

Total
0.00
0.00
6.45
0.12
0.48
0.10

Total	
Methane	0.00
Benzene	0.00
Butene	3.44
1,2,4 -Trur	0.00
Pentene	0.25
Xylene	0.01

						diesel				
Total	2022	j	ju	jul	a	s	o	n	d	
kg/yr	**Total Emission**	2.32966467	2.47476681	2.51890843	2.50665809	2.43922982	2.39116479	2.36819456		
8.80027352	Hexane (-n)	0.00012646	0.0001726	0.0001864	0.00018248	0.000162	0.0001455	0.00013812		
0	Benzene	0.00061371	0.00085254	0.00092478	0.00090423	0.00079723	0.00071167	0.00067363		
0.00289351	Isooctane									
0.00364334	Toluene	0.00110939	0.01018857	0.01111775	0.01085251	0.00948378	0.00840553	0.00793114		
0	Ethylbenzene	0.00110939	0.00155165	0.00169226	0.00165197	0.00144601	0.00128628	0.00121679		
0.03817638	Xylene (-m)	0.02155765	0.02984341	0.03248508	0.03172788	0.02786102	0.02486719	0.02356621		
0.00874274	Isopropyl benzene									
0.09609764	1,2,4 - Trimethylbenzene	0.03220381	0.03945049	0.04184085	0.04115223	0.03767988	0.03504756	0.0339208		
0	Cyclohexane									
0.11852369	*Methane*									
0	Unidentified Components	2.26686281	2.39270755	2.4306613	2.42018678	2.36179991	2.32070106	2.30074787		
0										
8.52943767	**2022 diesel**									
8.52943767										

Component	Emission Lbs/yr		Emission kg/yr	Total kg/yr
Total Emission	17.0285872		7.72	8.80
	0			0.00
Hexane (-n)	0.00111356		0.00	0.00
Benzene	0.00547779		0.00	0.00
Isooctane	0		0.00	0.00
Toluene	0.05908867		0.03	0.04
Ethylbenzene	0.00995436		0.00	0.01
Xylene (-m)	0.19190844		0.09	0.10
Isopropyl benzene	0		0.00	0.00
1,2,4 - Trimethylbenzene	0.26129561		0.12	0.12
Cyclohexane	0		0.00	0.00
Methane	0		0.00	0.00
Unidentified Components	16.4936673		7.48	8.53

Unidentified components comprise:			
		%	Emission kg/yr
Total	7.48		
i-hexane		4.78	0.36
i-heptane		1.53	0.11
i-butene		1.11	0.08
i-pentane		26.79	2.00
propane		1.25	0.09
n butane		22.95	1.72
iso butane		9.83	0.74
t-2 butene		1.21	0.09
cis-2 butene		0.98	0.07
n pentane		8.56	0.64
1 pentene		1.02	0.08
2 methyl 1 butene		1.93	0.14
trans 2 pentene		1.61	0.12
2 methyl 2 butene		1.04	0.08
3 methyl pentane		2.34	0.18
methylcyclopentane		1.66	0.12
2,2 dimethylbutane		1.23	0.09
other		10	0.75
	Total	100	7.47

Total	
Methane	0.00
Benzene	0.00
Butene	3.01
1,2,4 -Trumet	0.12
Pentene	0.22
Xylene	0.09

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 103

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	30.8	m	101.0	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.5	m	57.4	ft
Tank Volume	9,500	m^3		
Working Volume	8,579	m^3	2266340	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light yellow	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate														
Crude Oil													PD/CO/OL	
Organic liquid														
Multi-Component?													S/M	
Stock Level:	3108430	1021551	1012248	3725926	3803893	1110171	135692	8491380	8365684	19,452	24,095	8,485,979	I	
Stock Level	3,108	1,022	1,012	3,726	3,804	1,110	136	8,491	8,366	19	24	8,486	m^3	
Stock Level	683,171	224,517	222,472	818,885	836,020	243,994	29,822	1,866,237	1,838,612	4,275	5,296	1,865,050	gal	
Input:	0	0	0	2714	78	0	0	8356	0	0	5	8462	m^3	19,614
Output:	0	2,087	9	0	0	2,694	974	0	126	8,346	0	0	m^3	14,236
Turnover:	2.2863													
Ave Liq Height:	14.42												ft	
Chemical Name:	Kerosene	Kerosene	Kerosene	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Kerosene	Kerosene	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	8.0	9.3	10.2	13.1	14	21.4	20.9	21.3	14.6	14.7	10.3	12.1		
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

0% Methane in total emissions

2022 Kerosene

Assumptions:

Total kg/yr
37.89
0.00
0.57
0.28
0.00
2.60
0.82
1.66
0.00
0.00
0.00
0.00
31.97

Unidentified components comprise:

		%	Emission kg/yr
Total	31.97		
i-hexane		4.78	1.53
i-heptane		1.53	0.49
i-butene		1.11	0.35
i-pentane		26.79	8.56
propane		1.25	0.40
n butane		22.95	7.34
iso butane		9.83	3.14
t-2 butene		1.21	0.39
cis-2 butene		0.98	0.31
n pentane		8.56	2.74
1 pentene		1.02	0.33
2 methyl 1 butene		1.93	0.62
trans 2 pentene		1.61	0.51
2 methyl 2 butene		1.04	0.33
3 methyl pentane		2.34	0.75
methylcyclopentane		1.66	0.53
2,2 dimethylbutane		1.23	0.39
other		10	3.20
	Total	100	31.91

Total	
Methane	0.00
Benzene	0.12
Butene	2.00
1,2,4 -Trun	0.00
Pentene	0.84
Xylene	0.69

2022 Diesel

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	41.35636		18.76
	0.00000		
Hexane (-n)	0.70637		0.32
Benzene	0.34690		0.16
Isooctane	0.00000		0.00
Toluene	3.30342		1.50
Ethylbenzene	1.05556		0.48
Xylene (-m)	2.15170		0.98
Isopropyl benzene	0.00000		0.00
1,2,4 - Trimethylbenzene	0.00000		0.00
Cyclohexane	0.00000		0.00
Methane	0.00000		0.00
Unidentified Components	33.79241		15.33

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	42.16653571		19.13
	0		
Hexane (-n)	0.544272378		0.25
Benzene	0.262770964		0.12
Isooctane	0		0.00
Toluene	2.418668731		1.10
Ethylbenzene	0.74501755		0.34
Xylene (-m)	1.513537434		0.69
Isopropyl benzene	0		0.00
1,2,4 - Trimethylbenzene	0		0.00
Cyclohexane	0		0.00
Methane	0		0.00
Unidentified Components	36.68226866		16.64

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 106

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0 ft
Shell Diameter	29	m	95.1 ft
Tank Construction	welded	Welded/Riveted	
Maximum Liquid Height	17	m	55.8 ft
Tank Volume	12,700	m^3	
Working Volume	11,321	m^3	2990703 US Gal
Is Tank Heated?	N	Y/N	
Shell: External Colour/Shade:	grey	note 1	
External Condition:	Good	Good/Poor	
Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings: Vacuum Settings:	n/a	psig	
Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options: White/White; Aluminium/Specular; Aluminium/Diffuse; Grey/Light; Grey/Medium; Red/Primer

Note 2: Condition Options: Light Rust; Dense Rust; Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover												
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Distillate / Crude Oil / Organic liquid													PD/CO/OL
Multi-Component?													S/M
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3
Turnover:	0.0000												
Ave Liq Height:	0.00												ft
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	8	14	14	14	14	14	14	14	14	14	14	14	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 **None**

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			0.00
Benzene			0.00
Isooctane			0.00
Toluene			0.00
Ethylbenzene			0.00
Xylene (-m)			0.00
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components			0.00

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

TOTAL FOR TANK:

Total emissions	0.00 kg/yr
Hexane (-n)	0.00
Benzene	0.00
Isooctane	0.00
Toluene	0.00
Ethylbenzene	0.00
Xylene (-m)	0.00
Isopropyl benzene	0.00
1,2,4 - Trimethylbenzene	0.00
Cyclohexane	0.00
Methane	0.00
Unidentified Components	0.00

Unidentified components comprise:	kg/yr
i-hexane	0.00
i-heptane	0.00
i-butene	0.00
i-pentane	0.00
propane	0.00
n butane	0.00
iso butane	0.00
t-2 butene	0.00
cis-2 butene	0.00
n pentane	0.00
1 pentene	0.00
2 methyl 1 butene	0.00
trans 2 pentene	0.00
2 methyl 2 butene	0.00
3 methyl pentane	0.00
methylcyclopentane	0.00
2,2 dimethylbutane	0.00
other	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 108

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	14.6	m	47.9	ft
Shell Diameter	24.3	m	79.7	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	12.8	m	42.0	ft
Tank Volume	6,400	m^3		
Working Volume	5,858	m^3	1547525	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	Brown	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust	
	Dense Rust	
	Gunite Lining	

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal:				
None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	195727	195727	195727	195727	195727	195727	195727	195727	195727	195,727	195,727	195,727	**I**	
Stock Level	196	196	196	196	196	196	196	196	196	196	196	196	m^3	
Stock Level	43,017	43,017	43,017	43,017	43,017	43,017	43,017	43,017	43,017	43,017	43,017	43,017	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	1.38												ft	
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	13	13	13	13	13	13	13	13	13	13	13	13	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Slops (modelled as jet kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	89.25304323		40.49
Hexane (-n)	1.25028171		0.57
Benzene	0.610898592		0.28
Isooctane			0.00
Toluene	5.749634388		2.61
Ethylbenzene	1.807466048		0.82
Xylene (-m)	3.674344485		1.67
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	76.16041801		34.55

Unidentified components comprise:			
		%	Emission kg/yr
Total	34.55		
i-hexane		4.78	1.65
i-heptane		1.53	0.53
i-butene		1.11	0.38
i-pentane		26.79	9.25
propane		1.25	0.43
n butane		22.95	7.93
iso butane		9.83	3.40
t-2 butene		1.21	0.42
cis-2 butene		0.98	0.34
n pentane		8.56	2.96
1 pentene		1.02	0.35
2 methyl 1 butene		1.93	0.67
trans 2 pentene		1.61	0.56
2 methyl 2 butene		1.04	0.36
3 methyl pentane		2.34	0.81
methylcyclopentane		1.66	0.57
2,2 dimethylbutane		1.23	0.42
other		10	3.45
	Total	100	34.48

Total	
Methane	0.00
Benzene	0.28
Butene	2.17
1,2,4 -Trur	0.00
Pentene	0.91
Xylene	1.67

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 201

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height		19.5	m	64.0 ft
Shell Diameter		30.8	m	101.0 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		18.4	m	60.4 ft
Tank Volume		14,300	m^3	
Working Volume		13,664	m^3	3609660 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	Blue	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust		
	Dense Rust		
	Gunite Lining		

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:		white	note 1	
	Paint Condition:		good	Good/Poor	
	Type:		Cone	Cone/Dome/Flat	
	Height (of cone/dome):		3	m	9.8424
Internal Floating Roof details:					
	Self Supporting Roof:			Y/N	
	Number of Columns (supporting roof):				
	Effective Column Diameter:			m	
	Rim Seal System (select type:):				
	Primary Seal:	Mechanical Shoe:			
		Liquid Mounted:			
		Vapour Mounted:			
	Secondary Seal:	None:			
		Shoe Mounted:			
		Rim Mounted:			
	Deck Characteristics:				
	Deck Type:			Bolted/Welded	
	Deck Fittings Category:			note 3	
External Floating Roof details:					
	Roof Type:			Pontoon/Deck	
	Roof Fitting Category:			note 3	
	Rim Seal System:				
	Primary Seal:	Mechanical Shoe:			
		Liquid Mounted:			
	Secondary Seal:				
		None:			
		Shoe Mounted:			
		Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover												
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
Distillate / Crude Oil / Organic liquid													PD/CO/OL
Multi-Component?													S/M
Stock Level:	1334120	12382225	1276182	4470991	1434398	1438855	1280639	16733	16733	16,733	16,331	13,390,693	**I**
Stock Level	1,334	12,382	1,276	4,471	1,434	1,439	1,281	17	17	17	16	13,391	m^3
Stock Level	293,213	2,721,368	280,480	982,635	315,252	316,232	281,459	3,678	3,678	3,678	3,589	2,943,009	gal
Input:	0	11048	0	3195	0	4	0	0	0	0	0	13374	m^3
Output:	0	0	11,106	0	3,037	0	158	1,264	0	0	0	0	m^3
Turnover:	2.0215												
Ave Liq Height:	13.60												ft
Chemical Name:	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	7.1	10.4	9.9	12.9	14.5	21.4	20.3	21.3	13.5	13.2	9.4	13.1	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1049.846664		476.21
Hexane (-n)	14.88865979		6.75
Benzene	7.238325273		3.28
Isooctane			0.00
Toluene	67.45070595		30.60
Ethylbenzene	20.97744211		9.52
Xylene (-m)	42.60194798		19.32
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	896.6895833		406.74

	2022
Total Emission	1049.846664
Hexane (-n)	14.88865979
Benzene	7.238325273
Isooctane	
Toluene	67.45070595
Ethylbenzene	20.97744211
Xylene (-m)	42.60194798
Isopropyl benzene	
1,2,4 - Trimethylbenzene	
Cyclohexane	
Methane	
Unidentified Components	896.6895833

Unidentified components comprise:			
		%	Emission kg/yr
Total	406.74		
i-hexane		4.78	19.44
i-heptane		1.53	6.22
i-butene		1.11	4.51
i-pentane		26.79	108.97
propane		1.25	5.08
n butane		22.95	93.35
iso butane		9.83	39.98
t-2 butene		1.21	4.92
cis-2 butene		0.98	3.99
n pentane		8.56	34.82
1 pentene		1.02	4.15
2 methyl 1 butene		1.93	7.85
trans 2 pentene		1.61	6.55
2 methyl 2 butene		1.04	4.23
3 methyl pentane		2.34	9.52
methylcyclopentane		1.66	6.75
2,2 dimethylbutane		1.23	5.00
other		10	40.67
	Total	100	406.01

Total	
Methane	0.00
Benzene	3.28
Butene	25.50
1,2,4 -Trur	0.00
Pentene	10.70
Xylene	19.32

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 202

TANK TYPE (Select one of:):	
Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:				
Shell Height		19.5	m	64.0 ft
Shell Diameter		30.8	m	101.0 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		18.4	m	60.4 ft
Tank Volume		14,300	m^3	
Working Volume		13,622	m^3	3598565 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	light yellow	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:
Light Rust
Dense Rust
Gunite Lining

ROOF DETAILS

ROOF DETAILS:				
Roof:	Colour/Shade:	white	note 1	
	Paint Condition:	good	Good/Poor	
	Type:	Cone	Cone/Dome/Flat	
	Height (of cone/dome):	3	m	9.8424 ft
Internal Floating Roof details:				
	Self Supporting Roof:		Y/N	
	Number of Columns (supporting roof):			
	Effective Column Diameter:		m	
	Rim Seal System (select type:):			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Vapour Mounted:			
	Secondary Seal: None:			
	Shoe Mounted:			
	Rim Mounted:			
	Deck Characteristics:			
	Deck Type:		Bolted/Welded	
	Deck Fittings Category:		note 3	
External Floating Roof details:				
	Roof Type:		Pontoon/Deck	
	Roof Fitting Category:		note 3	
	Rim Seal System:			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Secondary Seal: None:			
	Shoe Mounted:			
	Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	7117318	5361161	4282738	5566281	8301875	10226097	8052018	12718279	0	11,213,442	800,217	8,994,934	I	
Stock Level	7,117	5,361	4,283	5,566	8,302	10,226	8,052	12,718	0	11,213	800	8,995	m^3	
Stock Level	1,564,246	1,178,277	941,261	1,223,358	1,824,588	2,247,494	1,769,674	2,795,226	0	2,464,493	175,872	1,976,909	gal	
Input:	0	0	0	1284	2736	1924	0	4666	0	11213	0	8195	m^3	30,018
Output:	0	1,756	1,078	0	0	0	2,174	0	12,718	0	10,413	0	m^3	28,140
Turnover:	2.2036													
Ave Liq Height:	30.32												ft	
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7	8	11.8	16.7	14	22.4	21	22.2	19	15.1	9.3	8.2	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	901.3925		408.87
Hexane (-n)	0.391743863		0.18
Benzene	1.901867012		0.86
Isooctane			0.00
Toluene	21.26176545		9.64
Ethylbenzene	2.804865987		1.27
Xylene (-m)	52.04353081		23.61
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	39.91152896		18.10
Cyclohexane			0.00
Methane			0.00
Unidentified Components	783.0771742		355.20

Unidentified components comprise:			
		%	Emission kg/yr
Total	355.20		
i-hexane		4.78	16.98
i-heptane		1.53	5.43
i-butene		1.11	3.94
i-pentane		26.79	95.16
propane		1.25	4.44
n butane		22.95	81.52
iso butane		9.83	34.92
t-2 butene		1.21	4.30
cis-2 butene		0.98	3.48
n pentane		8.56	30.41
1 pentene		1.02	3.62
2 methyl 1 butene		1.93	6.86
trans 2 pentene		1.61	5.72
2 methyl 2 butene		1.04	3.69
3 methyl pentane		2.34	8.31
methylcyclopentane		1.66	5.90
2,2 dimethylbutane		1.23	4.37
other		10	35.52
	Total	100	354.56

Total	
Methane	0.00
Benzene	0.86
Butene	22.27
1,2,4 -Trun	18.10
Pentene	9.34
Xylene	23.61

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 203

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0 ft	
Shell Diameter	30.8	m	101.0 ft	
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	18.4	m	60.4 ft	
Tank Volume	14,300	m^3		
Working Volume	13,658	m^3	3608075 US Gal	
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	Blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust	
	Dense Rust	
	Gunite Lining	

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	3	m	9.8424 ft	
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	7000231	1873957	1292538	7254622	1284370	1285855	8493224	4482475	16137	1,372,740	1,468,537	13,517,007	**I**	
Stock Level	7,000	1,874	1,293	7,255	1,284	1,286	8,493	4,482	16	1,373	1,469	13,517	m^3	
Stock Level	1,538,512	411,859	284,074	1,594,422	282,279	282,605	1,866,643	985,159	3,547	301,701	322,755	2,970,771	gal	
Input:	0	0	0	5962	0	1	7207	0	0	1357	96	12048	m^3	26,672
Output:	0	5,126	581	0	5,970	0	0	4,011	4,466	0	0	0	m^3	20,155
Turnover:	1.9528													
Ave Liq Height:	18.11												ft	
Chemical Name:	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.8	10.7	10.5	14.7	14.7	19.3	19.9	22.6	16.4	14.9	9.7	14.7	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	858.101889		389.24
Hexane (-n)	12.1693839		5.52
Benzene	5.916312163		2.68
Isooctane			0.00
Toluene	55.13145886		25.01
Ethylbenzene	17.14610648		7.78
Xylene (-m)	34.82109653		15.79
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	732.9175311		332.45

Unidentified components comprise:			
		%	Emission kg/yr
Total	332.45		
i-hexane		4.78	15.89
i-heptane		1.53	5.09
i-butene		1.11	3.69
i-pentane		26.79	89.06
propane		1.25	4.16
n butane		22.95	76.30
iso butane		9.83	32.68
t-2 butene		1.21	4.02
cis-2 butene		0.98	3.26
n pentane		8.56	28.46
1 pentene		1.02	3.39
2 methyl 1 butene		1.93	6.42
trans 2 pentene		1.61	5.35
2 methyl 2 butene		1.04	3.46
3 methyl pentane		2.34	7.78
methylcyclopentane		1.66	5.52
2,2 dimethylbutane		1.23	4.09
other		10	33.25
	Total	100	331.85

Total	
Methane	0.00
Benzene	2.68
Butene	20.84
1,2,4 -Trun	0.00
Pentene	8.74
Xylene	15.79

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 204

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height		19.5	m	64.0 ft
Shell Diameter		30.8	m	101.0 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		18.4	m	60.4 ft
Tank Volume		14,300	m^3	
Working Volume		13,647	m^3	3605169 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	Blue	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:	white	note 1	
	Paint Condition:	good	Good/Poor	
	Type:	Cone	Cone/Dome/Flat	
	Height (of cone/dome):	3	m	9.8424 ft
Internal Floating Roof details:				
	Self Supporting Roof:		Y/N	
	Number of Columns (supporting roof):			
	Effective Column Diameter:		m	
	Rim Seal System (select type:):			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Vapour Mounted:			
	Secondary Seal: None:			
	Shoe Mounted:			
	Rim Mounted:			
	Deck Characteristics:			
	Deck Type:		Bolted/Welded	
	Deck Fittings Category:		note 3	
External Floating Roof details:				
	Roof Type:		Pontoon/Deck	
	Roof Fitting Category:		note 3	
	Rim Seal System:			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Secondary Seal:			
	None:			
	Shoe Mounted:			
	Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid													S/M	
Multi-Component?														
Stock Level:	7108365	2938988	7340402	13559247	6828935	4645892	832719	4048	4526	3,331	1,715	13,530,226	I	
Stock Level	7,108	2,939	7,340	13,559	6,829	4,646	833	4	5	3	2	13,530	m^3	
Stock Level	1,562,278	645,931	1,613,275	2,980,054	1,500,865	1,021,075	183,015	890	995	732	377	2,973,676	gal	
Input:	0	0	4401	6219	0	0	0	0	0	0	0	13529	m^3	24,149
Output:	0	4,169	0	0	6,730	2,183	3,813	829	0	1	2	0	m^3	17,727
Turnover:	1.7696													
Ave Liq Height:	20.84												ft	
Chemical Name:	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.9	8.9	12.5	15.6	15.9	17.7	22.5	24	18.1	14.5	11.9	16.4	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Slops (Jet Kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1276.194164		578.88
	0		
Hexane (-n)	18.02664056		8.18
Benzene	8.811680218		4.00
Isooctane	0		0.00
Toluene	83.02366019		37.66
Ethylbenzene	26.13719918		11.86
Xylene (-m)	53.14277618		24.11
Isopropyl benzene	0		0.00
1,2,4 - Trimethylbenzene	0		0.00
Cyclohexane	0		0.00
Methane	0		0.00
Unidentified Components	1087.052207		493.09

Unidentified components comprise:			
		%	Emission kg/yr
Total	493.09		
i-hexane		4.78	23.57
i-heptane		1.53	7.54
i-butene		1.11	5.47
i-pentane		26.79	132.10
propane		1.25	6.16
n butane		22.95	113.16
iso butane		9.83	48.47
t-2 butene		1.21	5.97
cis-2 butene		0.98	4.83
n pentane		8.56	42.21
1 pentene		1.02	5.03
2 methyl 1 butene		1.93	9.52
trans 2 pentene		1.61	7.94
2 methyl 2 butene		1.04	5.13
3 methyl pentane		2.34	11.54
methylcyclopentane		1.66	8.19
2,2 dimethylbutane		1.23	6.06
other		10	49.31
	Total	100	492.20

Total	
Methane	0.00
Benzene	4.00
Butene	30.92
1,2,4 -Trur	0.00
Pentene	12.97
Xylene	24.11

	Kerosene											
	2022 j	f	m	a	m	j	j	a	s	o	n	
Total Emission		61.10530863	52.6926442	105.3257	129.2659	138.6475	174.5425253	212.1577	192.4921	116.1689	82.21914	11.5767
Hexane (-n)		0.920182786	0.77873494	1.521174	1.842782	1.938205	2.429274794	2.951178	2.676668	1.625874	1.174475	0.168092
Benzene		0.442075313	0.37517261	0.73603	0.894502	0.948198	1.193402597	1.4571	1.319354	0.794821	0.569784	0.081241
Isooctane												
Toluene		4.023908427	3.43389498	6.794462	8.309829	8.946204	11.35352158	14.00192	12.63595	7.488238	5.287423	0.748299
Ethylbenzene		1.219995157	1.0473953	2.091687	2.575801	2.81981	3.610657324	4.501039	4.047419	2.356583	1.636998	0.229813
Xylene (-m)		2.471924346	2.123346	4.243939	5.229455	5.733732	7.348010975	9.169455	8.242504	4.791117	3.323113	0.46618
Isopropyl benzene												
1,2,4 - Trimethylbenzene												
Cyclohexane												
Methane												
Unidentified Components		52.0272226	44.9341004	89.93841	110.4136	118.2614	148.6076581	180.077	163.5702	99.11232	70.22735	9.883079

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 205

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height		19.5	m	64.0 ft
Shell Diameter		30.8	m	101.0 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		18.4	m	60.4 ft
Tank Volume		14,300	m^3	
Working Volume		13,656	m^3	3607546 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	light yellow	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:	white	note 1	
	Paint Condition:	good	Good/Poor	
	Type:	Cone	Cone/Dome/Flat	
	Height (of cone/dome):	3	m	
Internal Floating Roof details:				
	Self Supporting Roof:		Y/N	
	Number of Columns (supporting roof):			
	Effective Column Diameter:		m	
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
		Vapour Mounted:		
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:		
	Deck Characteristics:			
	Deck Type:		Bolted/Welded	
	Deck Fittings Category:		note 3	
External Floating Roof details:				
	Roof Type:		Pontoon/Deck	
	Roof Fitting Category:		note 3	
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	13435975	905696	1408761	3023474	1483069	894550	866313	13381650	1384239	12,630,031	2,165,216	925,016	I	
Stock Level	13,436	906	1,409	3,023	1,483	895	866	13,382	1,384	12,630	2,165	925	m^3	
Stock Level	2,952,962	199,054	309,618	664,500	325,949	196,604	190,398	2,941,022	304,228	2,775,831	475,872	203,300	gal	
Input:	0	0	503	1615	0	0	0	12515	0	11246	0	0	m^3	25,879
Output:	0	12,530	0	0	1,540	589	28	0	11,997	0	10,465	1,240	m^3	38,390
Turnover:	1.8951													
Ave Liq Height:	19.27												ft	
Chemical Name:	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	Kerosene	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.3	8.1	8.6	11	12.7	16.8	20.7	23.7	14.1	16	9.7	7.9	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

2022

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	991.1617387		449.59
Hexane (-n)	14.12158717		6.41
Benzene	6.855852338		3.11
Isooctane			0.00
Toluene	63.71068738		28.90
Ethylbenzene	19.75530731		8.96
Xylene (-m)	40.10899259		18.19
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	846.6093119		384.02

Unidentified components comprise:			
		%	Emission kg/yr
Total	384.02		
i-hexane		4.78	18.36
i-heptane		1.53	5.88
i-butene		1.11	4.26
i-pentane		26.79	102.88
propane		1.25	4.80
n butane		22.95	88.13
iso butane		9.83	37.75
t-2 butene		1.21	4.65
cis-2 butene		0.98	3.76
n pentane		8.56	32.87
1 pentene		1.02	3.92
2 methyl 1 butene		1.93	7.41
trans 2 pentene		1.61	6.18
2 methyl 2 butene		1.04	3.99
3 methyl pentane		2.34	8.99
methylcyclopentane		1.66	6.37
2,2 dimethylbutane		1.23	4.72
other		10	38.40
	Total	100	383.33

Total	
Methane	0.00
Benzene	3.11
Butene	24.08
1,2,4 -Trun	0.00
Pentene	10.10
Xylene	18.19

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 206

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8 ft	
Shell Diameter	42	m	137.8 ft	
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.3	m	53.5 ft	
Tank Volume	24,000	m^3		
Working Volume	22,506	m^3	5945478 US Gal	
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	3	m	9.8424 ft	
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal:				
None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	11938495	1810514	0	0	0	2628123	20779	9959704	11617268	16,568,552	1,200,328	1,764,861	**I**	
Stock Level	11,938	1,811	0	0	0	2,628	21	9,960	11,617	16,569	1,200	1,765	m^3	
Stock Level	2,623,845	397,915	0	0	0	577,609	4,567	2,188,946	2,553,246	3,641,440	263,808	387,882	gal	
Input:	0	0	0	0	0	2628	0	9939	1658	4951	0	565	m^3	19,740
Output:	0	10,128	1,811	0	0	0	2,607	0	0	0	15,368	0	m^3	29,914
Turnover:	0.8771													
Ave Liq Height:	11.35												ft	
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.6	9.1	8.3	0	0	21.2	6.5	22.3	19.2	16.5	10.2	8.7	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1058.952554		480.34
	0		
Hexane (-n)	0.445507789		0.20
Benzene	2.179035136		0.99
Isooctane	0		0.00
Toluene	24.7314818		11.22
Ethylbenzene	3.317551619		1.50
Xylene (-m)	61.65513092		27.97
Isopropyl benzene	0		0.00
1,2,4 - Trimethylbenzene	48.38851261		21.95
Cyclohexane	0		0.00
Methane	0		0.00
Unidentified Components	918.2353344		416.51

	j	f
Total Emission	63.31244	54.28248
Hexane (-n)	0.029442	0.02468
Benzene	0.141447	0.118899
Isooctane		
Toluene	1.548871	1.309192
Ethylbenzene	0.199787	0.16989
Xylene (-m)	3.699476	3.147568
Isopropyl benzene		
1,2,4 - Trimethylbenzene	2.753056	2.361272
Cyclohexane		
Methane		
Unidentified Components	54.94	47.15098

Unidentified components comprise:			
		%	Emission kg/yr
Total	416.51		
i-hexane		4.78	19.91
i-heptane		1.53	6.37
i-butene		1.11	4.62
i-pentane		26.79	111.58
propane		1.25	5.21
n butane		22.95	95.59
iso butane		9.83	40.94
t-2 butene		1.21	5.04
cis-2 butene		0.98	4.08
n pentane		8.56	35.65
1 pentene		1.02	4.25
2 methyl 1 butene		1.93	8.04
trans 2 pentene		1.61	6.71
2 methyl 2 butene		1.04	4.33
3 methyl pentane		2.34	9.75
methylcyclopentane		1.66	6.91
2,2 dimethylbutane		1.23	5.12
other		10	41.65
	Total	100	415.76

Total	
Methane	0.00
Benzene	0.99
Butene	26.12
1,2,4 -Trun	21.95
Pentene	10.95
Xylene	27.97

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 207

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8 ft	
Shell Diameter	42	m	137.8 ft	
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.3	m	53.5 ft	
Tank Volume	24,000	m^3		
Working Volume	22,556	m^3	5958686 US Gal	
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust	
	Dense Rust	
	Gunite Lining	

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	3	m	9.8424 ft	
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	22462976	19361217	14961095	1308722	15084562	15890	0	0	0	0	0	1,866,597	**I**	
Stock Level	22,463	19,361	14,961	1,309	15,085	16	0	0	0	0	0	1,867	m^3	
Stock Level	4,936,918	4,255,213	3,288,153	287,631	3,315,288	3,492	0	0	0	0	0	410,241	gal	
Input:	0	0	0	0	13776	0	0	0	0	0	0	1867	m^3	15,642
Output:	0	3,102	4,400	13,652	0	15,069	16	0	0	0	0	0	m^3	36,239
Turnover:	0.6935													
Ave Liq Height:	14.81												ft	
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	8.1	9.3	11.3	14.3	18.1	14.6	14.6	14.6	14.6	14.6	14.6	8.3	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	573.8872597 0		260.32
Hexane (-n)	0.24926686		0.11
Benzene	1.211256842		0.55
Isooctane	0		0.00
Toluene	13.56896626		6.15
Ethylbenzene	1.794509476		0.81
Xylene (-m)	33.3056041		15.11
Isopropyl benzene	0		0.00
1,2,4 - Trimethylbenzene	25.64194621		11.63
Cyclohexane	0		0.00
Methane	0		0.00
Unidentified Components	498.1157099		225.95

Unidentified components comprise:			
		%	Emission kg/yr
Total	225.95		
i-hexane		4.78	10.80
i-heptane		1.53	3.46
i-butene		1.11	2.51
i-pentane		26.79	60.53
propane		1.25	2.82
n butane		22.95	51.85
iso butane		9.83	22.21
t-2 butene		1.21	2.73
cis-2 butene		0.98	2.21
n pentane		8.56	19.34
1 pentene		1.02	2.30
2 methyl 1 butene		1.93	4.36
trans 2 pentene		1.61	3.64
2 methyl 2 butene		1.04	2.35
3 methyl pentane		2.34	5.29
methylcyclopentane		1.66	3.75
2,2 dimethylbutane		1.23	2.78
other		10	22.59
	Total	100	225.54

Total	
Methane	0.00
Benzene	0.55
Butene	14.17
1,2,4 -Trun	11.63
Pentene	5.94
Xylene	15.11

	j	f
Total Emission	47.32692	41.12869
Hexane (-n)	0.022009	0.018699
Benzene	0.105734	0.090087
Isooctane		
Toluene	1.157802	0.991947
Ethylbenzene	0.149343	0.128722
Xylene (-m)	2.765409	2.384846
Isopropyl benzene		
1,2,4 - Trimethylbenzene	2.057948	1.789086
Cyclohexane		
Methane		
Unidentified Components	41.06868	35.7253

m	a	m	j	d	total
81.9826	100.8681577	110.022	141.026	51.53296	573.88730
0.036241	0.043869331	0.046231	0.057879	0.024339	0.249267
0.175355	0.21294542	0.226167	0.284333	0.116635	1.211257
1.947361	2.379838983	2.567067	3.254165	1.270784	13.56897
0.255052	0.313840555	0.344239	0.440288	0.163025	1.794509
4.729318	5.82304075	6.396963	8.188734	3.017293	33.30560
3.592062	4.463536281	5.014348	6.495902	2.229064	25.641950
71.24721	87.63108641	95.42694	122.3047	44.71182	498.1157

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 208

TANK TYPE (Select one of:):	
Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:				
Shell Height		17	m	55.8 ft
Shell Diameter		42	m	137.8 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		16.3	m	53.5 ft
Tank Volume		24,000	m^3	
Working Volume		22,519	m^3	5948912 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	blue	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:					
Roof:	Colour/Shade:		white	note 1	
	Paint Condition:		good	Good/Poor	
	Type:		Cone	Cone/Dome/Flat	
	Height (of cone/dome):		3	m	9.8424 ft
Internal Floating Roof details:					
	Self Supporting Roof:			Y/N	
	Number of Columns (supporting roof):				
	Effective Column Diameter:			m	
	Rim Seal System (select type:):				
	Primary Seal:	Mechanical Shoe:			
		Liquid Mounted:			
		Vapour Mounted:			
	Secondary Seal:	None:			
		Shoe Mounted:			
		Rim Mounted:			
	Deck Characteristics:				
	Deck Type:			Bolted/Welded	
	Deck Fittings Category:			note 3	
External Floating Roof details:					
	Roof Type:			Pontoon/Deck	
	Roof Fitting Category:			note 3	
	Rim Seal System:				
	Primary Seal:	Mechanical Shoe:			
		Liquid Mounted:			
	Secondary Seal:				
		None:			
		Shoe Mounted:			
		Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	0	21690753	12504695	26665	1714859	18142412	12041484	14382943	20359425	1,742,544	2,905,320	19,410,039	**I**	
Stock Level	0	21,691	12,505	27	1,715	18,142	12,041	14,383	20,359	1,743	2,905	19,410	m^3	
Stock Level	0	4,767,198	2,748,285	5,860	376,892	3,987,343	2,646,480	3,161,086	4,474,599	382,977	638,532	4,265,943	gal	
Input:	0	21691	0	0	1688	16428	0	2341	5976	0	1163	16505	m^3	65,792
Output:	0	0	9,186	12,478	0	0	6,101	0	0	18,617	0	0	m^3	46,382
Turnover:	2.9216													
Ave Liq Height:	24.65												ft	
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	17	9.6	12	10.8	15.9	23.8	20.9	23.5	18.7	15.2	10	9.1	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Diesel

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1639.872757		743.85
	0		
Hexane (-n)	0.692823716		0.31
Benzene	3.384919187		1.54
Isooctane	0		0.00
Toluene	38.32985758		17.39
Ethylbenzene	5.12852675		2.33
Xylene (-m)	95.28722266		43.22
Isopropyl benzene	0		0.00
1,2,4 - Trimethylbenzene	74.51544646		33.80
Cyclohexane	0		0.00
Methane	0		0.00
Unidentified Components	1422.53396		645.26

Unidentified components comprise:			
		%	Emission kg/yr
Total	645.26		
i-hexane		4.78	30.84
i-heptane		1.53	9.87
i-butene		1.11	7.16
i-pentane		26.79	172.87
propane		1.25	8.07
n butane		22.95	148.09
iso butane		9.83	63.43
t-2 butene		1.21	7.81
cis-2 butene		0.98	6.32
n pentane		8.56	55.23
1 pentene		1.02	6.58
2 methyl 1 butene		1.93	12.45
trans 2 pentene		1.61	10.39
2 methyl 2 butene		1.04	6.71
3 methyl pentane		2.34	15.10
methylcyclopentane		1.66	10.71
2,2 dimethylbutane		1.23	7.94
other		10	64.53
	Total	100	644.10

Total	
Methane	0.00
Benzene	1.54
Butene	40.46
1,2,4 -Trun	33.80
Pentene	16.97
Xylene	43.22

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 209

TANK TYPE (Select one of:):	
Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:				
Shell Height		17	m	55.8 ft
Shell Diameter		42	m	137.8 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		16.3	m	53.5 ft
Tank Volume		24,000	m^3	
Working Volume		22,538	m^3	5953931 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	blue	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:				
Roof:	Colour/Shade:	white	note 1	
	Paint Condition:	good	Good/Poor	
	Type:	Cone	Cone/Dome/Flat	
	Height (of cone/dome):	3	m	9.8424 ft
Internal Floating Roof details:				
	Self Supporting Roof:		Y/N	
	Number of Columns (supporting roof):			
	Effective Column Diameter:		m	
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
		Vapour Mounted:		
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:		
	Deck Characteristics:			
	Deck Type:		Bolted/Welded	
	Deck Fittings Category:		note 3	
External Floating Roof details:				
	Roof Type:		Pontoon/Deck	
	Roof Fitting Category:		note 3	
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	17766046	17539979	20058437	9878	8888948	10205640	649778	14422877	20294394	14,191,158	14,128,719	7,372,132	I	
Stock Level	17,766	17,540	20,058	10	8,889	10,206	650	14,423	20,294	14,191	14,129	7,372	m^3	
Stock Level	3,904,625	3,854,940	4,408,448	2,171	1,953,615	2,242,998	142,808	3,169,863	4,460,306	3,118,936	3,105,213	1,620,249	gal	
Input:	0	0	2518	0	8879	1317	0	13773	5872	0	0	0	m^3	32,359
Output:	0	226	0	20,049	0	0	9,556	0	0	6,103	62	6,757	m^3	42,753
Turnover:	1.4357													
Ave Liq Height:	28.72												ft	
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.8	8.8	11.1	12	19.6	20.9	18.9	22.9	19	15.9	10.8	8.7	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Diesel

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	939.0461727		425.95
			0.00
Hexane (-n)	0.405696107		0.18
Benzene	1.972347024		0.89
Isooctane			0.00
Toluene	22.11057694		10.03
Ethylbenzene	2.925549163		1.33
Xylene (-m)	54.29764578		24.63
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	41.80652547		18.96
Cyclohexane			0.00
Methane			0.00
Unidentified Components	815.5278322		369.92

Unidentified components comprise:			
		%	Emission kg/yr
Total	369.92		
i-hexane		4.78	17.68
i-heptane		1.53	5.66
i-butene		1.11	4.11
i-pentane		26.79	99.10
propane		1.25	4.62
n butane		22.95	84.90
iso butane		9.83	36.36
t-2 butene		1.21	4.48
cis-2 butene		0.98	3.63
n pentane		8.56	31.67
1 pentene		1.02	3.77
2 methyl 1 butene		1.93	7.14
trans 2 pentene		1.61	5.96
2 methyl 2 butene		1.04	3.85
3 methyl pentane		2.34	8.66
methylcyclopentane		1.66	6.14
2,2 dimethylbutane		1.23	4.55
other		10	36.99
	Total	100	369.26

Total	
Methane	0.00
Benzene	0.89
Butene	23.19
1,2,4 -Trun	18.96
Pentene	9.73
Xylene	24.63

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 301

TANK TYPE (Select one of:):	
Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:				
Shell Height	19.5	m	64.0	ft
Shell Diameter	35.3	m	115.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	18	m	59.1	ft
Tank Volume	19,000	m^3		
Working Volume	17,562	m^3	4639406	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	Brown	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:			
Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover												
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
Distillate / Crude Oil / Organic liquid													PD/CO/OL
Multi-Component?													S/M
Stock Level:	17545741	1894762	18561	22040	8013440	14818486	6788575	16561934	17438507	17,495	17,495	3,430,260	I
Stock Level	17,546	1,895	19	22	8,013	14,818	6,789	16,562	17,439	17	17	3,430	m^3
Stock Level	3,856,207	416,431	4,079	4,844	1,761,196	3,256,810	1,491,995	3,639,985	3,832,639	3,845	3,845	753,903	gal
Input:	0	0	0	3	7991	6805	0	9773	877	0	0	3413	m^3 28,863
Output:	0	15,651	1,876	0	0	0	8,030	0	0	17,421	0	0	m^3 42,978
Turnover:	1.6435												
Ave Liq Height:	24.18												ft
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Kerosene	Diesel	Diesel	Diesel	Diesel	Kerosene	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	7.3	8.8	10.8	9.5	15.6	22.8	20.7	22.9	16.3	13.4	13.4	11	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

2022 kerosene

Component	Emission Lbs/yr		Emission kg/yr	**total**
Total Emission	14.54311736		6.60	16.18580551
	0			
Hexane (-n)	0.171380742		0.08	0.190738704
Benzene	0.084082904		0.04	0.093580317
Isooctane	0		0.00	0
Toluene	0.800356042		0.36	0.890758626
Ethylbenzene	0.256297054		0.12	0.285246565
Xylene (-m)	0.522913159		0.24	0.581977748
Isopropyl benzene	0		0.00	0
1,2,4 - Trimethylbenzene	0		0.00	0
Cyclohexane	0		0.00	0
Methane	0		0.00	0
Unidentified Components	12.70808746		5.76	14.14350355

Unidentified components comprise:			
		%	Emission kg/yr
Total	5.76		
i-hexane		4.78	0.28
i-heptane		1.53	0.09
i-butene		1.11	0.06
i-pentane		26.79	1.54
propane		1.25	0.07
n butane		22.95	1.32
iso butane		9.83	0.57
t-2 butene		1.21	0.07
cis-2 butene		0.98	0.06
n pentane		8.56	0.49
1 pentene		1.02	0.06
2 methyl 1 butene		1.93	0.11
trans 2 pentene		1.61	0.09
2 methyl 2 butene		1.04	0.06
3 methyl pentane		2.34	0.13
methylcyclopentane		1.66	0.10
2,2 dimethylbutane		1.23	0.07
other		10	0.58
	Total	100	5.75

Total	Total
Methane	0.00
Benzene	0.04
Butene	0.36
1,2,4 -Trun	0.00
Pentene	0.15
Xylene	0.24

Total	0.00
Methane	0.00
Benzene	0.04
Butene	0.36
1,2,4 -Trun	0.00
Pentene	0.15
Xylene	0.24

2022 diesel

Component	Emission Lbs/yr		Emission kg/yr	total
Total Emission	0.439857751		0.20	6.80
	0.215803226			
Hexane (-n)	0		0.00	0.08
Benzene	2.054156168		0.93	0.97
Isooctane	0.657799963		0.30	0.30
Toluene	1.342084316		0.61	0.97
Ethylbenzene	0		0.00	0.12
Xylene (-m)	0		0.00	0.24
Isopropyl benzene	0		0.00	0.00
1,2,4 - Trimethylbenzene	0		0.00	0.00
Cyclohexane	32.61597949		14.79	14.79
Methane	0		0.00	0.00
Unidentified Components	0		0.00	5.76

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.93
Butene	0.00
1,2,4 -Trumethyl	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 302

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height		19.5	m	64.0 ft
Shell Diameter		35.3	m	115.8 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		17.8	m	58.4 ft
Tank Volume		19,000	m^3	
Working Volume		17,356	m^3	4584987 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	Brown	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:		white	note 1
	Paint Condition:		good	Good/Poor
	Type:		flat	Cone/Dome/Flat
	Height (of cone/dome):			m
Internal Floating Roof details:				
	Self Supporting Roof:			Y/N
	Number of Columns (supporting roof):			
	Effective Column Diameter:			m
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
		Vapour Mounted:		
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:		
	Deck Characteristics:			
	Deck Type:			Bolted/Welded
	Deck Fittings Category:			note 3
External Floating Roof details:				
	Roof Type:		Deck	Pontoon/Deck
	Roof Fitting Category:		typical	note 3
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:	x	
		Liquid Mounted:		
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:	x	

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	506390	506390	506390	506390	506390	506390	506390	506390	506390	506,390	506,390	506,390	I	
Stock Level	506	506	506	506	506	506	506	506	506	506	506	506	m^3	
Stock Level	111,295	111,295	111,295	111,295	111,295	111,295	111,295	111,295	111,295	111,295	111,295	111,295	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	1.70												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	12	12	12	12	12	12	12	12	12	12	12	12	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	5029.059186		2,281.18
Hexane (-n)	5.086188432		2.31
Benzene	4.659667887		2.11
Isooctane	0		0.00
Toluene	2.198280813		1.00
Ethylbenzene	0.289481623		0.13
Xylene (-m)	0.843802472		0.38
Isopropyl benzene	0.032114126		0.01
1,2,4 - Trimethylbenzene	0.045053205		0.02
Cyclohexane	5.637639032		2.56
Methane			0.00
Unidentified Components	442.0021557		200.49

Unidentified components comprise:			
		%	Emission kg/yr
Total	200.49		
i-hexane		4.78	9.58
i-heptane		1.53	3.07
i-butene		1.11	2.23
i-pentane		26.79	53.71
propane		1.25	2.51
n butane		22.95	46.01
iso butane		9.83	19.71
t-2 butene		1.21	2.43
cis-2 butene		0.98	1.96
n pentane		8.56	17.16
1 pentene		1.02	2.05
2 methyl 1 butene		1.93	3.87
trans 2 pentene		1.61	3.23
2 methyl 2 butene		1.04	2.09
3 methyl pentane		2.34	4.69
methylcyclopentane		1.66	3.33
2,2 dimethylbutane		1.23	2.47
other		10	20.05
	Total	100	200.13

Total	
Methane	0.00
Benzene	2.11
Butene	12.57
1,2,4 -Trun	0.02
Pentene	5.27
Xylene	0.38

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 303

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	35.3	m	115.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	18	m	59.1	ft
Tank Volume	19,000	m^3		
Working Volume	17,562	m^3	4639406	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	Brown	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:		white	note 1	
Paint Condition:		good	Good/Poor	
Type:		flat	Cone/Dome/Flat	
Height (of cone/dome):			m	
Internal Floating Roof details:				
Self Supporting Roof:			Y/N	
Number of Columns (supporting roof):				
Effective Column Diameter:			m	
Rim Seal System (select type:):				
Primary Seal:	Mechanical Shoe:			
	Liquid Mounted:			
	Vapour Mounted:			
Secondary Seal:	None:			
	Shoe Mounted:			
	Rim Mounted:			
Deck Characteristics:				
Deck Type:			Bolted/Welded	
Deck Fittings Category:			note 3	
External Floating Roof details:				
Roof Type:		deck	Pontoon/Deck	
Roof Fitting Category:		typical	note 3	
Rim Seal System:				
Primary Seal:	Mechanical Shoe:	x		
	Liquid Mounted:			
Secondary Seal:				
	None:			
	Shoe Mounted:			
	Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate														
Crude Oil													PD/CO/OL	
Organic liquid														
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	I	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:

		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.00
Butene	0.00
1,2,4 -Trur	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 304

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19	m	62.3 ft
Shell Diameter	30	m	98.4 ft
Tank Construction	welded	Welded/Riveted	
Maximum Liquid Height	17.5	m	57.4 ft
Tank Volume	12,700	m^3	
Working Volume	12,232	m^3	3231364 US Gal
Is Tank Heated?	N	Y/N	
Shell: External Colour/Shade:	Brown	note 1	
External Condition:	Good	Good/Poor	
Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings: Vacuum Settings:	n/a	psig	
Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
	2022 Turnover													
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	8328885	904618	3242563	1653899	219482	4825	4825	0	0	0	**I**	
Stock Level	0	0	8,329	905	3,243	1,654	219	5	5	0	0	0	m^3	
Stock Level	0	0	1,830,524	198,817	712,651	363,494	48,238	1,060	1,060	0	0	0	gal	
Input:	0	0	8329	0	2338	0	0	0	0	0	0	0	m^3	10,667
Output:	0	0	0	7,424	0	1,589	1,434	215	0	5	0	0	m^3	10,667
Turnover:	0.8720													
Ave Liq Height:	5.55												ft	
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	20.8	20.8	11.7	12.8	15.9	18.1	16.2	17.5	17.5	17.5	17.5	17.5	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Unleaded

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	21882.38029		9,925.85
	0		0.00
Hexane (-n)	98.24630781		44.56
Benzene	96.65817331		43.84
Isooctane	0.412844461		0.19
Toluene	119.8179585		54.35
Ethylbenzene	6.879322421		3.12
Xylene (-m)	49.12036995		22.28
Isopropyl benzene	2.506174516		1.14
1,2,4 - Trimethylbenzene	2.96028588		1.34
Cyclohexane	15.01645348		6.81
Methane	0		0.00
Unidentified Components	21490.7624		9,748.21

Unidentified components comprise:			
		%	Emission kg/yr
Total	9,748.21		
i-hexane		4.78	465.96
i-heptane		1.53	149.15
i-butene		1.11	108.21
i-pentane		26.79	2,611.55
propane		1.25	121.85
n butane		22.95	2,237.21
iso butane		9.83	958.25
t-2 butene		1.21	117.95
cis-2 butene		0.98	95.53
n pentane		8.56	834.45
1 pentene		1.02	99.43
2 methyl 1 butene		1.93	188.14
trans 2 pentene		1.61	156.95
2 methyl 2 butene		1.04	101.38
3 methyl pentane		2.34	228.11
methylcyclopentane		1.66	161.82
2,2 dimethylbutane		1.23	119.90
other		10	974.82
	Total	100	9,730.66

Total	
Methane	0.00
Benzene	43.84
Butene	611.21
1,2,4 -Trun	1.34
Pentene	256.38
Xylene	22.28

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 305

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height		19	m	62.3 ft
Shell Diameter		30	m	98.4 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		17.5	m	57.4 ft
Tank Volume		12,700	m^3	
Working Volume		12,275	m^3	3242724 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	Brown	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:		white	note 1
	Paint Condition:		good	Good/Poor
	Type:		flat	Cone/Dome/Flat
	Height (of cone/dome):			m
Internal Floating Roof details:				
	Self Supporting Roof:			Y/N
	Number of Columns (supporting roof):			
	Effective Column Diameter:			m
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
		Vapour Mounted:		
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:		
	Deck Characteristics:			
	Deck Type:			Bolted/Welded
	Deck Fittings Category:			note 3
External Floating Roof details:				
	Roof Type:		deck	Pontoon/Deck
	Roof Fitting Category:		typical	note 3
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:	x	
		Liquid Mounted:		
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:	x	

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate														
Crude Oil													PD/CO/OL	
Organic liquid														
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	0		0.00
Hexane (-n)	0		0.00
Benzene	0		0.00
Isooctane	0		0.00
Toluene	0		0.00
Ethylbenzene	0		0.00
Xylene (-m)	0		0.00
Isopropyl benzene	0		0.00
1,2,4 - Trimethylbenzene	0		0.00
Cyclohexane	0		0.00
Methane			0.00
Unidentified Components	0		0.00

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.00
Butene	0.00
1,2,4 -Trun	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 306

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19	m	62.3	ft
Shell Diameter	36	m	118.1	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17	m	55.8	ft
Tank Volume	19,000	m^3		
Working Volume	17,254	m^3	4558041	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	pontoon	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate														
Crude Oil													PD/CO/OL	
Organic liquid														
Multi-Component?													S/M	
Stock Level:	0	16029668	17288707	8488375	14463895	11796124	10080626	10217132	1268346	1,301,898	1,305,965	1,552,014	I	
Stock Level	0	16,030	17,289	8,488	14,464	11,796	10,081	10,217	1,268	1,302	1,306	1,552	m^3	
Stock Level	0	3,523,004	3,799,716	1,865,577	3,178,878	2,592,555	2,215,522	2,245,524	278,757	286,131	287,025	341,102	gal	
Input:	0	16030	1259	0	5976	0	0	137	0	34	4	246	m^3	23,684
Output:	0	0	0	8,800	0	2,668	1,715	0	8,949	0	0	0	m^3	22,132
Turnover:	1.3727													
Ave Liq Height:	25.19												ft	
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	9.1	9.3	12.4	13.1	16.8	18.3	20.6	20.7	13.8	13.9	9.1	8.6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

2022 Unleaded

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	39900.72870		18,098.97
Hexane (-n)	173.789597		78.83
Benzene	191.33637		86.79
Isooctane	0.39967377		0.18
Toluene	211.663865		96.01
Ethylbenzene	14.0751059		6.38
Xylene (-m)	58.7483913		26.65
Isopropyl benzene	2.26423866		1.03
1,2,4 - Trimethylbenzene	4.97047183		2.25
Cyclohexane	26.4445792		12.00
Methane	0		0.00
Unidentified Components	39217.0364		17,788.85

	f	m	a	m	j	j	a	s
Total Emission	6,646.29	3451.30988	3,171.66	3384.117	3723.259	3541.505	3060.929	2642.959
Hexane (-n)	27.5894846	14.6653174	13.76	15.24032	17.05646	16.54431	14.14699	11.75091
Benzene	30.0124339	16.0452397	15.13	16.90942	19.00234	18.51971	15.79569	12.99863
Isooctane	0.03633398	0.03633398	0.04	0.036334	0.036334	0.036334	0.036334	0.036334
Toluene	32.3855426	17.5266043	16.70	18.98865	21.51035	21.16499	17.96442	14.51708
Ethylbenzene	2.09234105	1.14977724	1.11	1.282522	1.464542	1.455747	1.230049	0.976033
Xylene (-m)	8.70499854	4.7935276	4.62	5.360646	6.125149	6.09442	5.148371	4.079542
Isopropyl benzene	0.32867134	0.18329857	0.18	0.208535	0.239269	0.239554	0.202003	0.158555
1,2,4 - Trimethylbenzene	0.70054218	0.3996889	0.39	0.462182	0.531611	0.535957	0.45222	0.352928
Cyclohexane	4.16667031	2.22287801	2.09	2.330292	2.614658	2.543716	2.171683	1.79343
Methane								
Unidentified Components	6,540.27	3394.28721	3,117.64	3323.298	3654.678	3474.37	3003.781	2596.296

Unidentified components comprise:			
		%	Emission kg/yr
Total	17,788.85		
i-hexane		4.78	850.31
i-heptane		1.53	272.17
i-butene		1.11	197.46
i-pentane		26.79	4,765.63
propane		1.25	222.36
n butane		22.95	4,082.54
iso butane		9.83	1,748.64
t-2 butene		1.21	215.25
cis-2 butene		0.98	174.33
n pentane		8.56	1,522.73
1 pentene		1.02	181.45
2 methyl 1 butene		1.93	343.32
trans 2 pentene		1.61	286.40
2 methyl 2 butene		1.04	185.00
3 methyl pentane		2.34	416.26
methylcyclopentane		1.66	295.29
2,2 dimethylbutane		1.23	218.80
other		10	1,778.88
	Total	100	17,756.83

Total	
Methane	0.00
Benzene	86.79
Butene	1,115.36
1,2,4 -Trumethy	2.25
Pentene	467.85
Xylene	26.65

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 307

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19	m	62.3 ft
Shell Diameter	36	m	118.1 ft
Tank Construction	welded	Welded/Riveted	
Maximum Liquid Height	17.1	m	56.1 ft
Tank Volume	19,000	m^3	
Working Volume	17,321	m^3	4575741 US Gal
Is Tank Heated?	N	Y/N	
Shell: External Colour/Shade:	blue	note 1	
External Condition:	Good	Good/Poor	
Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings: Vacuum Settings:	n/a	psig	
Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options: White/White, Aluminium/Specular, Aluminium/Diffuse, Grey/Light, Grey/Medium, Red/Primer

Note 2: Condition Options: Light Rust, Dense Rust, Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	pontoon	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:	x		
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

Chemical Category:	2022 Turnover Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	I	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	16	16	16	16	16	16	16	16	16	16	16	16	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil: 1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)

Petroleum Distillates:
2. Distillate Fuel Oil No.2
3. Jet Kerosene
4. Jet Naphtha (JP-4)
5. Residual Oil No.6
6. Gasoline (RVP 6)
7. Gasoline (RVP 7)
8. Gasoline (RVP 8)
9. Gasoline (RVP 9)
10. Gasoline (RVP 10)
11. Gasoline (RVP 11)
12. Gasoline (RVP 12)
13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 unleaded

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 308

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19	m	62.3 ft	
Shell Diameter	36	m	118.1 ft	
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.1	m	56.1 ft	
Tank Volume	19,000	m^3		
Working Volume	17,310	m^3	4572835 US Gal	
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White; Aluminium/Specular; Aluminium/Diffuse; Grey/Light; Grey/Medium; Red/Primer

Note 2: Condition Options: Light Rust; Dense Rust; Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	pontoon	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 unleaded

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 309

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19	m	62.3	ft
Shell Diameter	36	m	118.1	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.2	m	56.4	ft
Tank Volume	19,000	m^3		
Working Volume	17,412	m^3	4599780	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	pontoon	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal:				
None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	59779	16855966	14958372	1378204	14105968	1433083	6733583	3848438	5273738	4,041,736	4,873,931	17,493,778	**I**	
Stock Level	60	16,856	14,958	1,378	14,106	1,433	6,734	3,848	5,274	4,042	4,874	17,494	m^3	
Stock Level	13,138	3,704,608	3,287,554	302,902	3,100,213	314,963	1,479,908	845,811	1,159,063	888,294	1,071,194	3,844,786	gal	
Input:	0	16796	0	0	12728	0	5301	0	1425	0	832	12620	m^3	49,702
Output:	0	0	1,898	13,580	0	12,673	0	2,885	0	1,232	0	0	m^3	32,268
Turnover:	2.8545													
Ave Liq Height:	24.46												ft	
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.2	8.8	12.6	9.2	17.4	15.4	21.3	19.8	15.1	13.5	10	11.3	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Unle

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	45,842.36		20,794.09
			0.00
Hexane (-n)	199.104216		90.31
Benzene	219.036051		99.35
Isooctane	0.83872365		0.38
Toluene	242.165281		109.85
Ethylbenzene	16.1417349		7.32
Xylene (-m)	67.4612712		30.60
Isopropyl benzene	2.61647537		1.19
1,2,4 - Trimethylbenzene	5.86298388		2.66
Cyclohexane	30.2846892		13.74
Methane			0.00
Unidentified Components	45,058.85		20,438.69

Unidentified components comprise:			
		%	Emission kg/yr
Total	20,438.69		
i-hexane		4.78	976.97
i-heptane		1.53	312.71
i-butene		1.11	226.87
i-pentane		26.79	5,475.53
propane		1.25	255.48
n butane		22.95	4,690.68
iso butane		9.83	2,009.12
t-2 butene		1.21	247.31
cis-2 butene		0.98	200.30
n pentane		8.56	1,749.55
1 pentene		1.02	208.47
2 methyl 1 butene		1.93	394.47
trans 2 pentene		1.61	329.06
2 methyl 2 butene		1.04	212.56
3 methyl pentane		2.34	478.27
methylcyclopentane		1.66	339.28
2,2 dimethylbutane		1.23	251.40
other		10	2,043.87
	Total	100	20,401.90

Total	
Methane	0.00
Benzene	99.35
Butene	1,281.51
1,2,4 -Trun	2.66
Pentene	537.54
Xylene	30.60

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 401

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	29	m	95.1	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.8	m	58.4	ft
Tank Volume	12,700	m^3		
Working Volume	11,899	m^3	3143395	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total	
Methane	0.00
Benzene	0.00
Butene	0.00
1,2,4 -Trun	0.00
Pentene	0.00
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 402

TANK TYPE (Select one of:):	
Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:				
Shell Height		19.5	m	64.0 ft
Shell Diameter		29	m	95.1 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		17.65	m	57.9 ft
Tank Volume		12,700	m^3	
Working Volume		11,777	m^3	3111165 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	blue	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:				
Roof:	Colour/Shade:		white	note 1
	Paint Condition:		good	Good/Poor
	Type:		flat	Cone/Dome/Flat
	Height (of cone/dome):			m
Internal Floating Roof details:				
	Self Supporting Roof:			Y/N
	Number of Columns (supporting roof):			
	Effective Column Diameter:			m
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
		Vapour Mounted:		
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:		
	Deck Characteristics:			
	Deck Type:			Bolted/Welded
	Deck Fittings Category:			note 3
External Floating Roof details:				
	Roof Type:		deck	Pontoon/Deck
	Roof Fitting Category:		typical	note 3
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:	x	
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:	x	

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate														
Crude Oil													PD/CO/OL	
Organic liquid														
Multi-Component?													S/M	
Stock Level:	20938	20938	20938	20938	20938	20938	20938	20938	20938	20,938	20,938	20,938	**I**	
Stock Level	21	21	21	21	21	21	21	21	21	21	21	21	m^3	
Stock Level	4,602	4,602	4,602	4,602	4,602	4,602	4,602	4,602	4,602	4,602	4,602	4,602	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.10												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	9	9	9	9	9	9	9	9	9	9	9	9	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	5278.592042		2,394.37
			0.00
Hexane (-n)	58.26441198		26.43
Benzene	53.37844106		24.21
Isooctane	0		0.00
Toluene	25.1822245		11.42
Ethylbenzene	3.316132854		1.50
Xylene (-m)	9.666109608		4.38
Isopropyl benzene	0.367880725		0.17
1,2,4 - Trimethylbenzene	0.516103272		0.23
Cyclohexane	64.58150883		29.29
Methane			0.00
Unidentified Components	5063.319229		2,296.72

Unidentified components comprise:			
		%	Emission kg/yr
Total	2,296.72		
i-hexane		4.78	109.78
i-heptane		1.53	35.14
i-butene		1.11	25.49
i-pentane		26.79	615.29
propane		1.25	28.71
n butane		22.95	527.10
iso butane		9.83	225.77
t-2 butene		1.21	27.79
cis-2 butene		0.98	22.51
n pentane		8.56	196.60
1 pentene		1.02	23.43
2 methyl 1 butene		1.93	44.33
trans 2 pentene		1.61	36.98
2 methyl 2 butene		1.04	23.89
3 methyl pentane		2.34	53.74
methylcyclopentane		1.66	38.13
2,2 dimethylbutane		1.23	28.25
other		10	229.67
	Total	100	2,292.59

Total	
Methane	0.00
Benzene	24.21
Butene	144.00
1,2,4 -Trun	0.23
Pentene	60.40
Xylene	4.38

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 403

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0	ft
Shell Diameter	29	m	95.1	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	17.75	m	58.2	ft
Tank Volume	12,700	m^3		
Working Volume	11,893	m^3	3141809	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White, Aluminium/Specular, Aluminium/Diffuse, Grey/Light, Grey/Medium, Red/Primer

Note 2: Condition Options: Light Rust, Dense Rust, Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	flat	Cone/Dome/Flat	
Height (of cone/dome):		m	
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:	deck	Pontoon/Deck	
Roof Fitting Category:	typical	note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:	x		
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:	x		

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	2

LIQUID DETAILS:

Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
	2022 Turnover													
Distillate														
Crude Oil													PD/CO/OL	
Organic liquid														
Multi-Component?													S/M	
Stock Level:	821	2511804	11712740	7050788	11715440	5343935	1471194	1468500	1487360	0	0	1,819,546	I	
Stock Level	1	2,512	11,713	7,051	11,715	5,344	1,471	1,469	1,487	0	0	1,820	m^3	
Stock Level	180	552,045	2,574,229	1,549,624	2,574,822	1,174,491	323,339	322,747	326,892	0	0	399,900	gal	
Input:	0	2511	9201	0	4665	0	0	0	19	0	0	1820	m^3	18,215
Output:	0	0	0	4,662	0	6,372	3,873	3	0	1,487	0	0	m^3	16,396
Turnover:	1.5316													
Ave Liq Height:	18.45												ft	
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	5.2	8	12.4	13.4	17.3	17.3	20.9	19.1	12.6	0	0	9	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

2022 Unleaded

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	33330.52218		15,118.72
	0		
Hexane (-n)	145.3178419		65.92
Benzene	160.0453857		72.60
Isooctane	0.381723841		0.17
Toluene	177.2248449		80.39
Ethylbenzene	11.8053012		5.35
Xylene (-m)	49.2921639		22.36
Isopropyl benzene	1.903488956		0.86
1,2,4 - Trimethylbenzene	4.197643182		1.90
Cyclohexane	22.11726883		10.03
Methane	0		0.00
Unidentified Components	32758.23652		14,859.14

Unidentified components comprise:			
		%	Emission kg/yr
Total	14,859.14		
i-hexane		4.78	710.27
i-heptane		1.53	227.34
i-butene		1.11	164.94
i-pentane		26.79	3,980.76
propane		1.25	185.74
n butane		22.95	3,410.17
iso butane		9.83	1,460.65
t-2 butene		1.21	179.80
cis-2 butene		0.98	145.62
n pentane		8.56	1,271.94
1 pentene		1.02	151.56
2 methyl 1 butene		1.93	286.78
trans 2 pentene		1.61	239.23
2 methyl 2 butene		1.04	154.54
3 methyl pentane		2.34	347.70
methylcyclopentane		1.66	246.66
2,2 dimethylbutane		1.23	182.77
other		10	1,485.91
	Total	100	14,832.39

Total	
Methane	0.00
Benzene	72.60
Butene	931.67
1,2,4 -Trur	1.90
Pentene	390.80
Xylene	22.36

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 404

TANK TYPE (Select one of:):	
Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	x

TANK DETAILS:				
Shell Height		19.5	m	64.0 ft
Shell Diameter		29	m	95.1 ft
Tank Construction		welded	Welded/Riveted	
Maximum Liquid Height		17.75	m	58.2 ft
Tank Volume		12,700	m^3	
Working Volume		11,839	m^3	3127544 US Gal
Is Tank Heated?		N	Y/N	
Shell:	External Colour/Shade:	blue	note 1	
	External Condition:	Good	Good/Poor	
	Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings:	Vacuum Settings:	n/a	psig	
	Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:
Light Rust
Dense Rust
Gunite Lining

ROOF DETAILS

ROOF DETAILS:				
Roof:	Colour/Shade:		white	note 1
	Paint Condition:		good	Good/Poor
	Type:		dome	Cone/Dome/Flat
	Height (of cone/dome):		4.06	m
Internal Floating Roof details:				
	Self Supporting Roof:			Y/N
	Number of Columns (supporting roof):			
	Effective Column Diameter:			m
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
		Vapour Mounted:		
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:		
	Deck Characteristics:			
	Deck Type:			Bolted/Welded
	Deck Fittings Category:			note 3
External Floating Roof details:				
	Roof Type:		deck	Pontoon/Deck
	Roof Fitting Category:		typical	note 3
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:	x	
		Liquid Mounted:		
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:	x	

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	121411	11598439	5674922	8492908	8624792	1311897	1297124	7283088	1487155	0	0	1,290,410	I	
Stock Level	121	11,598	5,675	8,493	8,625	1,312	1,297	7,283	1,487	0	0	1,290	m^3	
Stock Level	26,684	2,549,107	1,247,236	1,866,573	1,895,559	288,329	285,082	1,600,679	326,847	0	0	283,607	gal	
Input:	0	11477	0	2818	132	0	0	5986	0	0	0	1290	m^3	21,703
Output:	0	0	5,924	0	0	7,313	15	0	5,796	1,487	0	0	m^3	20,534
Turnover:	1.8332													
Ave Liq Height:	19.53												ft	
Chemical Name:	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	Unleaded	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	8	9.6	13.1	12.8	16.8	17.9	21.2	21.9	14.8	15.4	15.4	9.6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Unleaded

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1059.83854		480.74
	0		0.00
Hexane (-n)	4.79386604		2.17
Benzene	4.78988748		2.17
Isooctane	1.08873129		0.49
Toluene	5.83267878		2.65
Ethylbenzene	0.7258009		0.33
Xylene (-m)	2.13005769		0.97
Isopropyl benzene	0.60348173		0.27
1,2,4 - Trimethylbenzene	0.41289204		0.19
Cyclohexane	0.73126789		0.33
Methane	0		0.00
Unidentified Components	1038.72988		471.17

Unidentified components comprise:			
		%	Emission kg/yr
Total	471.17		
i-hexane		4.78	22.52
i-heptane		1.53	7.21
i-butene		1.11	5.23
i-pentane		26.79	126.23
propane		1.25	5.89
n butane		22.95	108.13
iso butane		9.83	46.32
t-2 butene		1.21	5.70
cis-2 butene		0.98	4.62
n pentane		8.56	40.33
1 pentene		1.02	4.81
2 methyl 1 butene		1.93	9.09
trans 2 pentene		1.61	7.59
2 methyl 2 butene		1.04	4.90
3 methyl pentane		2.34	11.03
methylcyclopentane		1.66	7.82
2,2 dimethylbutane		1.23	5.80
other		10	47.12
	Total	100	470.32

Total	
Methane	0.00
Benzene	2.17
Butene	29.54
1,2,4 -Trur	0.19
Pentene	12.39
Xylene	0.97

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 405

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	19.5	m	64.0 ft
Shell Diameter	29	m	95.1 ft
Tank Construction	welded	Welded/Riveted	
Maximum Liquid Height	17.7	m	58.1 ft
Tank Volume	12,700	m^3	
Working Volume	11,832	m^3	3125695 US Gal
Is Tank Heated?	N	Y/N	
Shell: External Colour/Shade:	blue	note 1	
External Condition:	Good	Good/Poor	
Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings: Vacuum Settings:	n/a	psig	
Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:		white	note 1
	Paint Condition:		good	Good/Poor
	Type:		flat	Cone/Dome/Flat
	Height (of cone/dome):			m
Internal Floating Roof details:				
	Self Supporting Roof:			Y/N
	Number of Columns (supporting roof):			
	Effective Column Diameter:			m
	Rim Seal System (select type:):			
	Primary Seal:	Mechanical Shoe:		
		Liquid Mounted:		
		Vapour Mounted:		
	Secondary Seal:	None:		
		Shoe Mounted:		
		Rim Mounted:		
	Deck Characteristics:			
	Deck Type:			Bolted/Welded
	Deck Fittings Category:			note 3
External Floating Roof details:				
	Roof Type:		deck	Pontoon/Deck
	Roof Fitting Category:		typical	note 3
	Rim Seal System:			
	Primary Seal:	Mechanical Shoe:	x	
		Liquid Mounted:		
	Secondary Seal:			
		None:		
		Shoe Mounted:		
		Rim Mounted:	x	

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	386306	386306	386306	386306	386306	386306	386306	386306	386306	386,306	386,306	386,306	I	
Stock Level	386	386	386	386	386	386	386	386	386	386	386	386	m^3	
Stock Level	84,902	84,902	84,902	84,902	84,902	84,902	84,902	84,902	84,902	84,902	84,902	84,902	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	1.92												ft	
Chemical Name:	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	Crude	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Crude Oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	5278.592		2,394.37
Hexane (-n)	58.264412		26.43
Benzene	53.378441		24.21
Isooctane			0.00
Toluene	25.182224		11.42
Ethylbenzene	3.3161329		1.50
Xylene (-m)	9.6661096		4.38
Isopropyl benzene	0.3678807		0.17
1,2,4 - Trimethylbenzene	0.5161033		0.23
Cyclohexane	64.581509		29.29
Methane			0.00
Unidentified Components	5063.3192		2,296.72

Unidentified components comprise:			
		%	Emission kg/yr
Total	2,296.72		
i-hexane		4.78	109.78
i-heptane		1.53	35.14
i-butene		1.11	25.49
i-pentane		26.79	615.29
propane		1.25	28.71
n butane		22.95	527.10
iso butane		9.83	225.77
t-2 butene		1.21	27.79
cis-2 butene		0.98	22.51
n pentane		8.56	196.60
1 pentene		1.02	23.43
2 methyl 1 butene		1.93	44.33
trans 2 pentene		1.61	36.98
2 methyl 2 butene		1.04	23.89
3 methyl pentane		2.34	53.74
methylcyclopentane		1.66	38.13
2,2 dimethylbutane		1.23	28.25
other		10	229.67
	Total	100	2,292.59

Total	
Methane	0.00
Benzene	24.21
Butene	144.00
1,2,4 -Trun	0.23
Pentene	60.40
Xylene	4.38

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 601

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8	ft
Shell Diameter	34.7	m	113.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.2	m	53.1	ft
Tank Volume	16,000	m^3		
Working Volume	15,321	m^3	4047395	US Gal
Is Tank Heated?	N	Y/N		

Shell:	External Colour/Shade:	light grey	note 1
	External Condition:	Good	Good/Poor
	Internal Shell Condition:	Light Rust	note 2
Breather Vent Settings:	Vacuum Settings:	n/a	psig
	Pressure Settings:	n/a	psig

Note 1: Colour/Shade Options:	White/White, Aluminium/Specular, Aluminium/Diffuse, Grey/Light, Grey/Medium, Red/Primer

Note 2: Condition Options:	Light Rust, Dense Rust, Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:	white	note 1	
	Paint Condition:	good	Good/Poor	
	Type:	Cone	Cone/Dome/Flat	
	Height (of cone/dome):	3	m	9.8424 ft
Internal Floating Roof details:				
	Self Supporting Roof:		Y/N	
	Number of Columns (supporting roof):			
	Effective Column Diameter:		m	
	Rim Seal System (select type:):			
	Primary Seal: Mechanical Shoe: / Liquid Mounted: / Vapour Mounted:			
	Secondary Seal: None: / Shoe Mounted: / Rim Mounted:			
	Deck Characteristics:			
	Deck Type:		Bolted/Welded	
	Deck Fittings Category:		note 3	
External Floating Roof details:				
	Roof Type:		Pontoon/Deck	
	Roof Fitting Category:		note 3	
	Rim Seal System:			
	Primary Seal: Mechanical Shoe: / Liquid Mounted:			
	Secondary Seal: None: / Shoe Mounted: / Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Distillate / Crude Oil / Organic liquid													PD/CO/OL
Multi-Component?													S/M
Stock Level:	15166002	14890709	12062617	1483325	2173558	11511327	4218169	14777744	15229604	12,169,838	11,895,617	15,033,102	I
Stock Level	15,166	14,891	12,063	1,483	2,174	11,511	4,218	14,778	15,230	12,170	11,896	15,033	m^3
Stock Level	3,333,187	3,272,683	2,651,125	326,005	477,705	2,529,962	927,070	3,247,856	3,347,166	2,674,690	2,614,421	3,303,978	gal
Input:	0	0	0	0	690	9338	0	10560	452	0	0	3137	m^3 24,177
Output:	0	275	2,828	10,579	0	0	7,293	0	0	3,060	274	0	m^3 24,310
Turnover:	1.5780												
Ave Liq Height:	37.76												ft
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	8.2	8.7	11.8	13.4	19	22	19.6	20.5	15.9	15.6	10.8	9.6	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Die

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	808.8172723		366.88
Hexane (-n)	0.351510814		0.16
Benzene	1.706540635		0.77
Isooctane			0.00
Toluene	19.07813032		8.65
Ethylbenzene	2.516799415		1.14
Xylene (-m)	46.69853336		21.18
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	35.81251767		16.24
Cyclohexane			0.00
Methane			0.00
Unidentified Components	702.65324		318.72

Unidentified components comprise:			
		%	Emission kg/yr
Total	318.72		
i-hexane		4.78	15.23
i-heptane		1.53	4.88
i-butene		1.11	3.54
i-pentane		26.79	85.39
propane		1.25	3.98
n butane		22.95	73.15
iso butane		9.83	31.33
t-2 butene		1.21	3.86
cis-2 butene		0.98	3.12
n pentane		8.56	27.28
1 pentene		1.02	3.25
2 methyl 1 butene		1.93	6.15
trans 2 pentene		1.61	5.13
2 methyl 2 butene		1.04	3.31
3 methyl pentane		2.34	7.46
methylcyclopentane		1.66	5.29
2,2 dimethylbutane		1.23	3.92
other		10	31.87
	Total	100	318.15

Total	
Methane	0.00
Benzene	0.77
Butene	19.98
1,2,4 -Trur	16.24
Pentene	8.38
Xylene	21.18

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 602

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8	ft
Shell Diameter	34.7	m	113.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.2	m	53.1	ft
Tank Volume	16,000	m^3		
Working Volume	15,292	m^3	4039734	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	3	m	9.8424	ft
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal:				
None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	14243615	13385686	9390156	4704143	2139418	15210101	14636665	11060053	15195860	12,421,886	12,369,712	12,342,202	**I**	
Stock Level	14,244	13,386	9,390	4,704	2,139	15,210	14,637	11,060	15,196	12,422	12,370	12,342	m^3	
Stock Level	3,130,465	2,941,909	2,063,771	1,033,878	470,202	3,342,879	3,216,849	2,430,781	3,339,749	2,730,085	2,718,618	2,712,572	gal	
Input:	0	0	0	0	0	13071	0	0	4136	0	0	0	m^3	17,206
Output:	0	858	3,996	4,686	2,565	0	573	3,577	0	2,774	52	28	m^3	19,108
Turnover:	1.1252													
Ave Liq Height:	39.64												ft	
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	9.3	8.6	15.3	16.4	14.5	24.6	20.9	22.3	20.2	15.3	10.6	8.3	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2021 Diesel

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	77.8974417		35.33
Hexane (-n)	0.0292906		0.01
Benzene	0.14275415		0.06
Isooctane			0.00
Toluene	1.60973909		0.73
Ethylbenzene	0.21486601		0.10
Xylene (-m)	3.99430987		1.81
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	3.16954979		1.44
Cyclohexane			0.00
Methane			0.00
Unidentified Components	68.7369322		31.18

Unidentified components comprise:			
		%	Emission kg/yr
Total	31.18		
i-hexane		4.78	1.49
i-heptane		1.53	0.48
i-butene		1.11	0.35
i-pentane		26.79	8.35
propane		1.25	0.39
n butane		22.95	7.16
iso butane		9.83	3.06
t-2 butene		1.21	0.38
cis-2 butene		0.98	0.31
n pentane		8.56	2.67
1 pentene		1.02	0.32
2 methyl 1 butene		1.93	0.60
trans 2 pentene		1.61	0.50
2 methyl 2 butene		1.04	0.32
3 methyl pentane		2.34	0.73
methylcyclopentane		1.66	0.52
2,2 dimethylbutane		1.23	0.38
other		10	3.12
	Total	100	31.12

Total	
Methane	0.00
Benzene	0.06
Butene	1.95
1,2,4 -Trun	1.44
Pentene	0.82
Xylene	1.81

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 603

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8	ft
Shell Diameter	42.6	m	139.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.25	m	53.3	ft
Tank Volume	24,000	m^3		
Working Volume	23,190	m^3	6126172	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light green	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	**Note 2**: Condition Options:	Light Rust
	Aluminium/Specular	Grey/Medium		Dense Rust
	Aluminium/Diffuse	Red/Primer		Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	3	m	9.8424	ft
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal:				
None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

2022 Turnover														
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate														
Crude Oil													PD/CO/OL	
Organic liquid														
Multi-Component?													S/M	
Stock Level:	92590	92590	92590	92590	92590	92590	92590	92590	92590	92590	92,590	92,590	**I**	
Stock Level	93	93	93	93	93	93	93	93	93	93	93	93	m^3	
Stock Level	20,349	20,349	20,349	20,349	20,349	20,349	20,349	20,349	20,349	20,349	20,349	20,349	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.21												ft	
Chemical Name:	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2021 fuel oil (distillate fuel oil)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	2263.54036		1,026.74
Hexane (-n)	0.98373136		0.45
Benzene	4.77589159		2.17
Isooctane			0.00
Toluene	53.3916862		24.22
Ethylbenzene	7.04346613		3.19
Xylene (-m)	130.689612		59.28
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	100.224219		45.46
Cyclohexane			0.00
Methane			0.00
Unidentified Components	1966.43176		891.97

Unidentified components comprise:			
		%	Emission kg/yr
Total	891.97		
i-hexane		4.78	42.64
i-heptane		1.53	13.65
i-butene		1.11	9.90
i-pentane		26.79	238.96
propane		1.25	11.15
n butane		22.95	204.71
iso butane		9.83	87.68
t-2 butene		1.21	10.79
cis-2 butene		0.98	8.74
n pentane		8.56	76.35
1 pentene		1.02	9.10
2 methyl 1 butene		1.93	17.22
trans 2 pentene		1.61	14.36
2 methyl 2 butene		1.04	9.28
3 methyl pentane		2.34	20.87
methylcyclopentane		1.66	14.81
2,2 dimethylbutane		1.23	10.97
other		10	89.20
	Total	100	890.37

Total	
Methane	0.00
Benzene	0.00
Butene	55.93
1,2,4 -Trun	0.00
Pentene	23.46
Xylene	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 604

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8	ft
Shell Diameter	42.6	m	139.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.25	m	53.3	ft
Tank Volume	24,000	m^3		
Working Volume	23,165	m^3	6119568	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White; Aluminium/Specular; Aluminium/Diffuse; Grey/Light; Grey/Medium; Red/Primer

Note 2: Condition Options: Light Rust; Dense Rust; Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	Cone	Cone/Dome/Flat	
Height (of cone/dome):	3	m	9.8424 ft
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe: / Liquid Mounted: / Vapour Mounted:			
Secondary Seal: None: / Shoe Mounted: / Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:		Pontoon/Deck	
Roof Fitting Category:		note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe: / Liquid Mounted:			
Secondary Seal: None: / Shoe Mounted: / Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Distillate / Crude Oil / Organic liquid													PD/CO/OL
Multi-Component?													S/M
Stock Level:	206213	206213	206213	206213	206213	206213	206213	206213	206213	206213	206,213	206,213	**I**
Stock Level	206	206	206	206	206	206	206	206	206	206	206	206	m^3
Stock Level	45,322	45,322	45,322	45,322	45,322	45,322	45,322	45,322	45,322	45,322	45,322	45,322	gal
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3 0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3 0
Turnover:	0.0000												
Ave Liq Height:	0.47												ft
Chemical Name:	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 fuel oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	2263.54036		1,026.74
Hexane (-n)	0.98373136		0.45
Benzene	4.77589159		2.17
Isooctane			0.00
Toluene	53.3916862		24.22
Ethylbenzene	7.04346613		3.19
Xylene (-m)	130.689612		59.28
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	100.224219		45.46
Cyclohexane			0.00
Methane			0.00
Unidentified Components	1966.43176		891.97

Unidentified components comprise:			
		%	Emission kg/yr
Total	891.97		
i-hexane		4.78	42.64
i-heptane		1.53	13.65
i-butene		1.11	9.90
i-pentane		26.79	238.96
propane		1.25	11.15
n butane		22.95	204.71
iso butane		9.83	87.68
t-2 butene		1.21	10.79
cis-2 butene		0.98	8.74
n pentane		8.56	76.35
1 pentene		1.02	9.10
2 methyl 1 butene		1.93	17.22
trans 2 pentene		1.61	14.36
2 methyl 2 butene		1.04	9.28
3 methyl pentane		2.34	20.87
methylcyclopentane		1.66	14.81
2,2 dimethylbutane		1.23	10.97
other		10	89.20
	Total	100	890.37

Total	
Methane	0.00
Benzene	2.17
Butene	55.93
1,2,4 -Trur	45.46
Pentene	23.46
Xylene	59.28

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 605

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8	ft
Shell Diameter	42.6	m	139.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.3	m	53.5	ft
Tank Volume	24,000	m^3		
Working Volume	22,766	m^3	6014163	US Gal
Is Tank Heated?	N	Y/N		

Shell:	External Colour/Shade:	light green	note 1
	External Condition:	Good	Good/Poor
	Internal Shell Condition:	Light Rust	note 2
Breather Vent Settings:	Vacuum Settings:	n/a	psig
	Pressure Settings:	n/a	psig

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust		
	Dense Rust		
	Gunite Lining		

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:	white	note 1	
	Paint Condition:	good	Good/Poor	
	Type:	Cone	Cone/Dome/Flat	
	Height (of cone/dome):	3	m	9.8424
Internal Floating Roof details:				
	Self Supporting Roof:		Y/N	
	Number of Columns (supporting roof):			
	Effective Column Diameter:		m	
	Rim Seal System (select type:):			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Vapour Mounted:			
	Secondary Seal: None:			
	Shoe Mounted:			
	Rim Mounted:			
	Deck Characteristics:			
	Deck Type:		Bolted/Welded	
	Deck Fittings Category:		note 3	
External Floating Roof details:				
	Roof Type:		Pontoon/Deck	
	Roof Fitting Category:		note 3	
	Rim Seal System:			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Secondary Seal: None:			
	Shoe Mounted:			
	Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	158650	158650	158650	158650	158650	158650	158650	158650	158650	158650	158,650	158,650	**I**	
Stock Level	159	159	159	159	159	159	159	159	159	159	159	159	m^3	
Stock Level	34,868	34,868	34,868	34,868	34,868	34,868	34,868	34,868	34,868	34,868	34,868	34,868	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.37												ft	
Chemical Name:	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 fuel c **Component**	Emission Lbs/yr		Emission kg/yr
Total Emission	2,267.71		1,028.63
Hexane (-n)	0.98554499		0.45
Benzene	4.78469653		2.17
Isooctane			0.00
Toluene	53.4901203		24.26
Ethylbenzene	7.05645162		3.20
Xylene (-m)	130.930554		59.39
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	100.408994		45.55
Cyclohexane			0.00
Methane			0.00
Unidentified Components	1970.05711		893.62

Unidentified components comprise:			
		%	Emission kg/yr
Total	893.62		
i-hexane		4.78	42.71
i-heptane		1.53	13.67
i-butene		1.11	9.92
i-pentane		26.79	239.40
propane		1.25	11.17
n butane		22.95	205.09
iso butane		9.83	87.84
t-2 butene		1.21	10.81
cis-2 butene		0.98	8.76
n pentane		8.56	76.49
1 pentene		1.02	9.11
2 methyl 1 butene		1.93	17.25
trans 2 pentene		1.61	14.39
2 methyl 2 butene		1.04	9.29
3 methyl pentane		2.34	20.91
methylcyclopentane		1.66	14.83
2,2 dimethylbutane		1.23	10.99
other		10	89.36
	Total	100	892.01

Total	
Methane	0.00
Benzene	2.17
Butene	56.03
1,2,4 -Trun	45.55
Pentene	23.50
Xylene	59.39

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 606

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8 ft	
Shell Diameter	42.6	m	139.8 ft	
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.3	m	53.5 ft	
Tank Volume	24,000	m^3		
Working Volume	23,204	m^3	6129870 US Gal	
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light green	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White; Aluminium/Specular; Aluminium/Diffuse; Grey/Light; Grey/Medium; Red/Primer

Note 2: Condition Options: Light Rust; Dense Rust; Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	3	m	9.8424	
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil: 1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)

Petroleum Distillates:
2. Distillate Fuel Oil No.2
3. Jet Kerosene
4. Jet Naphtha (JP-4)
5. Residual Oil No.6
6. Gasoline (RVP 6)
7. Gasoline (RVP 7)
8. Gasoline (RVP 8)
9. Gasoline (RVP 9)
10. Gasoline (RVP 10)
11. Gasoline (RVP 11)
12. Gasoline (RVP 12)
13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary:

Assumptions: 0% Methane in total emissions

2022

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 607

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8	ft
Shell Diameter	42.6	m	139.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.25	m	53.3	ft
Tank Volume	24,000	m^3		
Working Volume	23,139	m^3	6112699	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White, Aluminium/Specular, Aluminium/Diffuse, Grey/Light, Grey/Medium, Red/Primer

Note 2: Condition Options: Light Rust, Dense Rust, Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:		white	note 1	
	Paint Condition:		good	Good/Poor	
	Type:		Cone	Cone/Dome/Flat	
	Height (of cone/dome):		3	m	9.8424
Internal Floating Roof details:					
	Self Supporting Roof:			Y/N	
	Number of Columns (supporting roof):				
	Effective Column Diameter:			m	
	Rim Seal System (select type:):				
	Primary Seal:	Mechanical Shoe:			
		Liquid Mounted:			
		Vapour Mounted:			
	Secondary Seal:	None:			
		Shoe Mounted:			
		Rim Mounted:			
	Deck Characteristics:				
	Deck Type:			Bolted/Welded	
	Deck Fittings Category:			note 3	
External Floating Roof details:					
	Roof Type:			Pontoon/Deck	
	Roof Fitting Category:			note 3	
	Rim Seal System:				
	Primary Seal:	Mechanical Shoe:			
		Liquid Mounted:			
	Secondary Seal:				
		None:			
		Shoe Mounted:			
		Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
	2022 Turnover													
Distillate													PD/CO/OL	
Crude Oil														
Organic liquid														
Multi-Component?													S/M	
Stock Level:	1381084	1476627	1502295	1502295	1848755	1815969	1811692	1811692	1811692	1811692	1,811,692	1,811,692	I	
Stock Level	1,381	1,477	1,502	1,502	1,849	1,816	1,812	1,812	1,812	1,812	1,812	1,812	m^3	
Stock Level	303,535	324,533	330,175	330,175	406,320	399,114	398,174	398,174	398,174	398,174	398,174	398,174	gal	
Input:	0	96	26	0	346	0	0	0	0	0	0	0	m^3	468
Output:	0	0	0	0	0	33	4	0	0	0	0	0	m^3	37
Turnover:	0.0202													
Ave Liq Height:	3.91												ft	
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.7	8.3	9.7	10.0	12.6	14.8	15.6	15.6	15.6	15.6	15.6	15.6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Slops (modelled as jet kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	2933.1421		1,330.47
Hexane (-n)	41.789973		18.96
Benzene	20.288504		9.20
Isooctane			0.00
Toluene	188.53886		85.52
Ethylbenzene	58.461825		26.52
Xylene (-m)	118.69443		53.84
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	2505.3685		1,136.44

Unidentified components comprise:			
		%	Emission kg/yr
Total	1,136.44		
i-hexane		4.78	54.32
i-heptane		1.53	17.39
i-butene		1.11	12.61
i-pentane		26.79	304.45
propane		1.25	14.21
n butane		22.95	260.81
iso butane		9.83	111.71
t-2 butene		1.21	13.75
cis-2 butene		0.98	11.14
n pentane		8.56	97.28
1 pentene		1.02	11.59
2 methyl 1 butene		1.93	21.93
trans 2 pentene		1.61	18.30
2 methyl 2 butene		1.04	11.82
3 methyl pentane		2.34	26.59
methylcyclopentane		1.66	18.86
2,2 dimethylbutane		1.23	13.98
other		10	113.64
	Total	100	1,134.39

Total	
Methane	0.00
Benzene	9.20
Butene	71.25
1,2,4 -Trur	0.00
Pentene	29.89
Xylene	53.84

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 608

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8 ft	
Shell Diameter	42.6	m	139.8 ft	
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.25	m	53.3 ft	
Tank Volume	24,000	m^3		
Working Volume	23,119	m^3	6107416 US Gal	
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	light green	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	3	m	9.8424	
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	22968851	17481234	21557217	17674510	2272115	22914447	8309541	22937354	22479217	16,688,507	12,451,471	22,726,897	**I**	
Stock Level	22,969	17,481	21,557	17,675	2,272	22,914	8,310	22,937	22,479	16,689	12,451	22,727	m^3	
Stock Level	5,048,099	3,842,029	4,737,850	3,884,508	499,366	5,036,142	1,826,273	5,041,177	4,940,487	3,667,804	2,736,587	4,994,922	gal	
Input:	0	0	4076	0	0	20642	0	14628	0	0	0	10275	m^3	49,622
Output:	0	5,488	0	3,883	15,402	0	14,605	0	458	5,791	4,237	0	m^3	49,864
Turnover:	2.1464													
Ave Liq Height:	40.37												ft	
Chemical Name:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	10.3	9.2	11.2	12.1	12.7	22.6	21.3	25.1	21.3	15.8	10.7	10	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 diesel (distillate fuel oil no2)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	996.60961		452.06
Hexane (-n)	0.44143224		0.20
Benzene	2.13516118		0.97
Isooctane			0.00
Toluene	23.6952784		10.75
Ethylbenzene	3.10115373		1.41
Xylene (-m)	57.4993892		26.08
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	43.6293328		19.79
Cyclohexane			0.00
Methane			0.00
Unidentified Components	866.107863		392.87

Unidentified components comprise:			
		%	Emission kg/yr
Total	392.87		
i-hexane		4.78	18.78
i-heptane		1.53	6.01
i-butene		1.11	4.36
i-pentane		26.79	105.25
propane		1.25	4.91
n butane		22.95	90.16
iso butane		9.83	38.62
t-2 butene		1.21	4.75
cis-2 butene		0.98	3.85
n pentane		8.56	33.63
1 pentene		1.02	4.01
2 methyl 1 butene		1.93	7.58
trans 2 pentene		1.61	6.33
2 methyl 2 butene		1.04	4.09
3 methyl pentane		2.34	9.19
methylcyclopentane		1.66	6.52
2,2 dimethylbutane		1.23	4.83
other		10	39.29
	Total	100	392.16

Total	
Methane	0.00
Benzene	0.97
Butene	24.63
1,2,4 -Trun	19.79
Pentene	10.33
Xylene	26.08

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 609

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8	ft
Shell Diameter	42	m	137.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.3	m	53.5	ft
Tank Volume	24,000	m^3		
Working Volume	22,546	m^3	5956044	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	3	m	9.8424	
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	453300	453300	453300	453300	453300	453300	453300	453300	453300	453,300	453,300	453,300	**I**	
Stock Level	453	453	453	453	453	453	453	453	453	453	453	453	m^3	
Stock Level	99,626	99,626	99,626	99,626	99,626	99,626	99,626	99,626	99,626	99,626	99,626	99,626	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	1.07												ft	
Chemical Name:	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 fuel oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1632.09195		740.32
Hexane (-n)	0.72290895		0.33
Benzene	3.49663433		1.59
Isooctane			0.00
Toluene	38.8044353		17.60
Ethylbenzene	5.07858643		2.30
Xylene (-m)	94.1635414		42.71
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	71.449324		32.41
Cyclohexane			0.00
Methane			0.00
Unidentified Components	1418.37652		643.38

Unidentified components comprise:			
		%	Emission kg/yr
Total	643.38		
i-hexane		4.78	30.75
i-heptane		1.53	9.84
i-butene		1.11	7.14
i-pentane		26.79	172.36
propane		1.25	8.04
n butane		22.95	147.65
iso butane		9.83	63.24
t-2 butene		1.21	7.78
cis-2 butene		0.98	6.31
n pentane		8.56	55.07
1 pentene		1.02	6.56
2 methyl 1 butene		1.93	12.42
trans 2 pentene		1.61	10.36
2 methyl 2 butene		1.04	6.69
3 methyl pentane		2.34	15.05
methylcyclopentane		1.66	10.68
2,2 dimethylbutane		1.23	7.91
other		10	64.34
	Total	100	642.22

Total	
Methane	0.00
Benzene	1.59
Butene	40.34
1,2,4 -Trun	32.41
Pentene	16.92
Xylene	42.71

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 610

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8	ft
Shell Diameter	42	m	137.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	16.3	m	53.5	ft
Tank Volume	24,000	m^3		
Working Volume	22,466	m^3	5934911	US Gal
Is Tank Heated?	N	Y/N		

Shell:	External Colour/Shade:	blue	note 1
	External Condition:	Good	Good/Poor
	Internal Shell Condition:	Light Rust	note 2
Breather Vent Settings:	Vacuum Settings:	n/a	psig
	Pressure Settings:	n/a	psig

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:	white	note 1	
	Paint Condition:	good	Good/Poor	
	Type:	Cone	Cone/Dome/Flat	
	Height (of cone/dome):	3	m	9.8424
Internal Floating Roof details:				
	Self Supporting Roof:		Y/N	
	Number of Columns (supporting roof):			
	Effective Column Diameter:		m	
	Rim Seal System (select type:):			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Vapour Mounted:			
	Secondary Seal: None:			
	Shoe Mounted:			
	Rim Mounted:			
	Deck Characteristics:			
	Deck Type:		Bolted/Welded	
	Deck Fittings Category:		note 3	
External Floating Roof details:				
	Roof Type:		Pontoon/Deck	
	Roof Fitting Category:		note 3	
	Rim Seal System:			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Secondary Seal: None:			
	Shoe Mounted:			
	Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	244406	244406	244406	244406	244406	244406	244406	244406	244406	244406	244,406	244,406	**I**	
Stock Level	244	244	244	244	244	244	244	244	244	244	244	244	m^3	
Stock Level	53,716	53,716	53,716	53,716	53,716	53,716	53,716	53,716	53,716	53,716	53,716	53,716	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.58												ft	
Chemical Name:	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	Fuel Oil	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 fuel oil

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1645.6501		746.47
Hexane (-n)	0.72891432		0.33
Benzene	3.52568164		1.60
Isooctane			0.00
Toluene	39.1267922		17.75
Ethylbenzene	5.12077536		2.32
Xylene (-m)	94.9457786		43.07
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene	72.0428691		32.68
Cyclohexane			0.00
Methane			0.00
Unidentified Components	1430.15928		648.72

Unidentified components comprise:			
		%	Emission kg/yr
Total	648.72		
i-hexane		4.78	31.01
i-heptane		1.53	9.93
i-butene		1.11	7.20
i-pentane		26.79	173.79
propane		1.25	8.11
n butane		22.95	148.88
iso butane		9.83	63.77
t-2 butene		1.21	7.85
cis-2 butene		0.98	6.36
n pentane		8.56	55.53
1 pentene		1.02	6.62
2 methyl 1 butene		1.93	12.52
trans 2 pentene		1.61	10.44
2 methyl 2 butene		1.04	6.75
3 methyl pentane		2.34	15.18
methylcyclopentane		1.66	10.77
2,2 dimethylbutane		1.23	7.98
other		10	64.87
	Total	100	647.55

Total	
Methane	0.00
Benzene	1.60
Butene	40.67
1,2,4 -Trun	32.68
Pentene	17.06
Xylene	43.07

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 702

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	17	m	55.8 ft	
Shell Diameter	17	m	55.8 ft	
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	13.6	m	44.6 ft	
Tank Volume	3,200	m^3		
Working Volume	3,107	m^3	820786 US Gal	
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	grey	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	Cone	Cone/Dome/Flat		
Height (of cone/dome):	1.5	m	4.9212	
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal:				
None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover												
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
Distillate / Crude Oil / Organic liquid													PD/CO/OL
Multi-Component?													S/M
Stock Level:	225445	225445	225445	225445	225445	225445	225445	225445	225445	225445	225,445	225,445	**I**
Stock Level	225	225	225	225	225	225	225	225	225	225	225	225	m^3
Stock Level	49,548	49,548	49,548	49,548	49,548	49,548	49,548	49,548	49,548	49,548	49,548	49,548	gal
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3 0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3 0
Turnover:	0.0000												
Ave Liq Height:	3.26												ft
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	8	8	8	8	8	8	8	8	8	8	8	8	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)		
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Slops (modelled as jet kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	443.1199		201.00
Hexane (-n)	6.313355		2.86
Benzene	3.065054		1.39
Isooctane			0.00
Toluene	28.48322		12.92
Ethylbenzene	8.83203		4.01
Xylene (-m)	17.93158		8.13
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	378.4947		171.69

Unidentified components comprise:			
		%	Emission kg/yr
Total	171.69		
i-hexane		4.78	8.21
i-heptane		1.53	2.63
i-butene		1.11	1.91
i-pentane		26.79	45.99
propane		1.25	2.15
n butane		22.95	39.40
iso butane		9.83	16.88
t-2 butene		1.21	2.08
cis-2 butene		0.98	1.68
n pentane		8.56	14.70
1 pentene		1.02	1.75
2 methyl 1 butene		1.93	3.31
trans 2 pentene		1.61	2.76
2 methyl 2 butene		1.04	1.79
3 methyl pentane		2.34	4.02
methylcyclopentane		1.66	2.85
2,2 dimethylbutane		1.23	2.11
other		10	17.17
	Total	100	171.38

Total	
Methane	0.00
Benzene	1.39
Butene	10.76
1,2,4 -Trun	0.00
Pentene	4.52
Xylene	8.13

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 703

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	11	m	36.1 ft
Shell Diameter	10.6	m	34.8 ft
Tank Construction	welded	Welded/Riveted	
Maximum Liquid Height	9.78	m	32.1 ft
Tank Volume	971	m^3	
Working Volume	871	m^3	230095 US Gal
Is Tank Heated?	N	Y/N	
Shell: External Colour/Shade:	blue	note 1	
External Condition:	Good	Good/Poor	
Internal Shell Condition:	Light Rust	note 2	
Breather Vent Settings: Vacuum Settings:	n/a	psig	
Pressure Settings:	n/a	psig	

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	blue	note 1	
Paint Condition:	good	Good/Poor	
Type:	Cone	Cone/Dome/Flat	
Height (of cone/dome):	1.5	m	4.9212
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:		Pontoon/Deck	
Roof Fitting Category:		note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:	
Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	442779	443136	443582	443047	443047	443314	442601	442511	442690	442690	442,690	439,032	**I**	
Stock Level	443	443	444	443	443	443	443	443	443	443	443	439	m^3	
Stock Level	97,314	97,393	97,491	97,373	97,373	97,432	97,275	97,255	97,295	97,295	97,295	96,491	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	1
Output:	0	0	0	1	0	0	1	0	0	0	0	4	m^3	5
Turnover:	0.0014													
Ave Liq Height:	16.45												ft	
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	7.1	8.6	10.5	10.8	10.8	18.4	20.8	21.3	16.3	16	12	9.8	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:
1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)

Petroleum Distillates:

2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022

Slops (modelled as jet kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	104.5802		47.44
Hexane (-n)	1.464989		0.66
Benzene	0.715807		0.32
Isooctane			0.00
Toluene	6.737004		3.06
Ethylbenzene	2.117857		0.96
Xylene (-m)	4.30533		1.95
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	89.23924		40.48

Unidentified components comprise:			
		%	Emission kg/yr
Total	40.48		
i-hexane		4.78	1.93
i-heptane		1.53	0.62
i-butene		1.11	0.45
i-pentane		26.79	10.84
propane		1.25	0.51
n butane		22.95	9.29
iso butane		9.83	3.98
t-2 butene		1.21	0.49
cis-2 butene		0.98	0.40
n pentane		8.56	3.46
1 pentene		1.02	0.41
2 methyl 1 butene		1.93	0.78
trans 2 pentene		1.61	0.65
2 methyl 2 butene		1.04	0.42
3 methyl pentane		2.34	0.95
methylcyclopentane		1.66	0.67
2,2 dimethylbutane		1.23	0.50
other		10	4.05
	Total	100	40.41

Total	
Methane	0.00
Benzene	0.32
Butene	2.54
1,2,4 -Trur	0.00
Pentene	1.06
Xylene	1.95

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 704

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	11	m	36.1	ft
Shell Diameter	10.6	m	34.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	9.93	m	32.6	ft
Tank Volume	971	m^3		
Working Volume	884	m^3	233529	US Gal
Is Tank Heated?	N	Y/N		

Shell:	External Colour/Shade:	blue	note 1
	External Condition:	Good	Good/Poor
	Internal Shell Condition:	Light Rust	note 2
Breather Vent Settings:	Vacuum Settings:	n/a	psig
	Pressure Settings:	n/a	psig

Note 1: Colour/Shade Options: White/White, Aluminium/Specular, Aluminium/Diffuse, Grey/Light, Grey/Medium, Red/Primer

Note 2: Condition Options: Light Rust, Dense Rust, Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof:	Colour/Shade:	blue	note 1	
	Paint Condition:	good	Good/Poor	
	Type:	Cone	Cone/Dome/Flat	
	Height (of cone/dome):	1.5	m	4.9212
Internal Floating Roof details:				
	Self Supporting Roof:		Y/N	
	Number of Columns (supporting roof):			
	Effective Column Diameter:		m	
	Rim Seal System (select type:):			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Vapour Mounted:			
	Secondary Seal: None:			
	Shoe Mounted:			
	Rim Mounted:			
	Deck Characteristics:			
	Deck Type:		Bolted/Welded	
	Deck Fittings Category:		note 3	
External Floating Roof details:				
	Roof Type:		Pontoon/Deck	
	Roof Fitting Category:		note 3	
	Rim Seal System:			
	Primary Seal: Mechanical Shoe:			
	Liquid Mounted:			
	Secondary Seal:			
	None:			
	Shoe Mounted:			
	Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year: 1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate														
Crude Oil													PD/CO/OL	
Organic liquid														
Multi-Component?													S/M	
Stock Level:	112603	112603	112514	197145	326997	482335	517925	559937	522474	312,115	434,387	499,372	I	
Stock Level	113	113	113	197	327	482	518	560	522	312	434	499	m^3	
Stock Level	24,748	24,748	24,728	43,329	71,867	106,008	113,830	123,063	114,829	68,597	95,470	109,752	gal	
Input:	0	0	0	85	130	155	36	42	0	0	122	65	m^3	635
Output:	0	0	0	0	0	0	0	0	37	210	0	0	m^3	248
Turnover:	0.7180													
Ave Liq Height:	12.98												ft	
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	6.9	9.2	12	13.1	14.8	18.3	20.8	19.5	14.8	15.2	9.5	8.5	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)		
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 slops (modelled as jet kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	171.0877		77.61
Hexane (-n)	2.396644		1.09
Benzene	1.171021		0.53
Isooctane			0.00
Toluene	11.02138		5.00
Ethylbenzene	3.464701		1.57
Xylene (-m)	7.043289		3.19
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	145.9906		66.22

Unidentified components comprise:			
		%	Emission kg/yr
Total	66.22		
i-hexane		4.78	3.17
i-heptane		1.53	1.01
i-butene		1.11	0.74
i-pentane		26.79	17.74
propane		1.25	0.83
n butane		22.95	15.20
iso butane		9.83	6.51
t-2 butene		1.21	0.80
cis-2 butene		0.98	0.65
n pentane		8.56	5.67
1 pentene		1.02	0.68
2 methyl 1 butene		1.93	1.28
trans 2 pentene		1.61	1.07
2 methyl 2 butene		1.04	0.69
3 methyl pentane		2.34	1.55
methylcyclopentane		1.66	1.10
2,2 dimethylbutane		1.23	0.81
other		10	6.62
	Total	100	66.10

Total	
Methane	0.00
Benzene	0.53
Butene	4.15
1,2,4 -Trun	0.00
Pentene	1.74
Xylene	3.19

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 705

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	12.2	m	40.0	ft
Shell Diameter	29	m	95.1	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	9.86	m	32.3	ft
Tank Volume	8,058	m^3		
Working Volume	6,606	m^3	1745127	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	white	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White; Aluminium/Specular; Aluminium/Diffuse; Grey/Light; Grey/Medium; Red/Primer

Note 2: Condition Options: Light Rust; Dense Rust; Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	Cone	Cone/Dome/Flat	
Height (of cone/dome):	1.5	m	4.9212
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe: / Liquid Mounted: / Vapour Mounted:			
Secondary Seal: None: / Shoe Mounted: / Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:		Pontoon/Deck	
Roof Fitting Category:		note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe: / Liquid Mounted:			
Secondary Seal: None: / Shoe Mounted: / Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

2022 Turnover	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Chemical Category: Distillate / Crude Oil / Organic liquid													PD/CO/OL
Multi-Component?													S/M
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3
Turnover:	0.0000												
Ave Liq Height:	0.00												ft
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	0	0	0	0	0	0	0	0	0	0	0	0	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil:
1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)

Petroleum Distillates:
2. Distillate Fuel Oil No.2
3. Jet Kerosene
4. Jet Naphtha (JP-4)
5. Residual Oil No.6
6. Gasoline (RVP 6)
7. Gasoline (RVP 7)
8. Gasoline (RVP 8)
9. Gasoline (RVP 9)
10. Gasoline (RVP 10)
11. Gasoline (RVP 11)
12. Gasoline (RVP 12)
13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			0.00
Benzene			0.00
Isooctane			0.00
Toluene			0.00
Ethylbenzene			0.00
Xylene (-m)			0.00
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components			0.00

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

TOTAL FOR TANK:

Total emissions	0.00 kg/yr
Hexane (-n)	0.00
Benzene	0.00
Isooctane	0.00
Toluene	0.00
Ethylbenzene	0.00
Xylene (-m)	0.00
Isopropyl benzene	0.00
1,2,4 - Trimethylbenze	0.00
Cyclohexane	0.00
Methane	0.00
Unidentified Compone	0.00

Unidentified components compris	kg/yr
i-hexane	0.00
i-heptane	0.00
i-butene	0.00
i-pentane	0.00
propane	0.00
n butane	0.00
iso butane	0.00
t-2 butene	0.00
cis-2 butene	0.00
n pentane	0.00
1 pentene	0.00
2 methyl 1 butene	0.00
trans 2 pentene	0.00
2 methyl 2 butene	0.00
3 methyl pentane	0.00
methylcyclopentane	0.00
2,2 dimethylbutane	0.00
other	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 706

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	12.2	m	40.0	ft
Shell Diameter	29	m	95.1	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	9.86	m	32.3	ft
Tank Volume	8,058	m^3		
Working Volume	6,606	m^3	1745127	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	white	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options: White/White; Aluminium/Specular; Aluminium/Diffuse; Grey/Light; Grey/Medium; Red/Primer

Note 2: Condition Options: Light Rust; Dense Rust; Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1	
Paint Condition:	good	Good/Poor	
Type:	Cone	Cone/Dome/Flat	
Height (of cone/dome):	1.5	m	4.9212
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe: / Liquid Mounted: / Vapour Mounted:			
Secondary Seal: None: / Shoe Mounted: / Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:		Pontoon/Deck	
Roof Fitting Category:		note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe: / Liquid Mounted:			
Secondary Seal: None: / Shoe Mounted: / Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	557481	560167	564866	561509	0	0	0	0	0	0	0	0	I	
Stock Level	557	560	565	562	0	0	0	0	0	0	0	0	m^3	
Stock Level	122,523	123,114	124,146	123,409	0	0	0	0	0	0	0	0	gal	
Input:	0	3	5	0	0	0	0	0	0	0	0	0	m^3	7
Output:	0	0	0	3	562	0	0	0	0	0	0	0	m^3	565
Turnover:	0.0011													
Ave Liq Height:	0.93												ft	
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	20.3	20.3	20.3	20.3	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:
1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)

Petroleum Distillates:
2. Distillate Fuel Oil No.2
3. Jet Kerosene
4. Jet Naphtha (JP-4)
5. Residual Oil No.6
6. Gasoline (RVP 6)
7. Gasoline (RVP 7)
8. Gasoline (RVP 8)
9. Gasoline (RVP 9)
10. Gasoline (RVP 10)
11. Gasoline (RVP 11)
12. Gasoline (RVP 12)
13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 slops (modelled as jet kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	195.25520		88.57
Hexane (-n)	2.910065		1.32
Benzene	1.400115		0.64
Isooctane	0		0.00
Toluene	12.78156		5.80
Ethylbenzene	3.887615		1.76
Xylene (-m)	7.879257		3.57
Isopropyl benzene	0		0.00
1,2,4 - Trimethylbenzene	0		0.00
Cyclohexane	0		0.00
Methane	0		0.00
Unidentified Components	166.3965		75.48

Unidentified components comprise:			
		%	Emission kg/yr
Total	75.48		
i-hexane		4.78	3.61
i-heptane		1.53	1.15
i-butene		1.11	0.84
i-pentane		26.79	20.22
propane		1.25	0.94
n butane		22.95	17.32
iso butane		9.83	7.42
t-2 butene		1.21	0.91
cis-2 butene		0.98	0.74
n pentane		8.56	6.46
1 pentene		1.02	0.77
2 methyl 1 butene		1.93	1.46
trans 2 pentene		1.61	1.22
2 methyl 2 butene		1.04	0.78
3 methyl pentane		2.34	1.77
methylcyclopentane		1.66	1.25
2,2 dimethylbutane		1.23	0.93
other		10	7.55
	Total	100	75.34

Total	
Methane	0.00
Benzene	0.64
Butene	4.73
1,2,4 -Trun	0.00
Pentene	1.99
Xylene	3.57

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 713

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	x
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	14.6	m	47.9 ft	
Shell Diameter	17	m	55.8 ft	
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	12.6	m	41.3 ft	
Tank Volume	3,050	m^3		
Working Volume	2,766	m^3	730703 US Gal	
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:
Light Rust
Dense Rust
Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	white	note 1		
Paint Condition:	good	Good/Poor		
Type:	flat	Cone/Dome/Flat		
Height (of cone/dome):		m		
Internal Floating Roof details:				
Self Supporting Roof:		Y/N		
Number of Columns (supporting roof):				
Effective Column Diameter:		m		
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Vapour Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				
Deck Characteristics:				
Deck Type:		Bolted/Welded		
Deck Fittings Category:		note 3		
External Floating Roof details:				
Roof Type:	deck	Pontoon/Deck		
Roof Fitting Category:	typical	note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:	x			
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:	x			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	0	0	0	0	0	0	0	0	0	0	0	0	**I**	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	m^3	
Stock Level	0	0	0	0	0	0	0	0	0	0	0	0	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.00												ft	
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)		
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 **Slops (entered as Jet Kerosene)**

Component	Emission Lbs/yr		Emission kg/yr
Total Emission			0.00
Hexane (-n)			
Benzene			
Isooctane			
Toluene			
Ethylbenzene			
Xylene (-m)			
Isopropyl benzene			
1,2,4 - Trimethylbenzene			
Cyclohexane			
Methane			
Unidentified Components			

Unidentified components comprise:			
		%	Emission kg/yr
Total	0.00		
i-hexane		4.78	0.00
i-heptane		1.53	0.00
i-butene		1.11	0.00
i-pentane		26.79	0.00
propane		1.25	0.00
n butane		22.95	0.00
iso butane		9.83	0.00
t-2 butene		1.21	0.00
cis-2 butene		0.98	0.00
n pentane		8.56	0.00
1 pentene		1.02	0.00
2 methyl 1 butene		1.93	0.00
trans 2 pentene		1.61	0.00
2 methyl 2 butene		1.04	0.00
3 methyl pentane		2.34	0.00
methylcyclopentane		1.66	0.00
2,2 dimethylbutane		1.23	0.00
other		10	0.00
	Total	100	0.00

Total emissions	0.00 kg/yr
Hexane (-n)	0.00
Benzene	0.00
Isooctane	0.00
Toluene	0.00
Ethylbenzene	0.00
Xylene (-m)	0.00
Isopropyl benzene	0.00
1,2,4 - Trimethylbenzer	0.00
Cyclohexane	0.00
Methane	0.00
Unidentified Componen	0.00

Unidentified components comprise	kg/yr
i-hexane	0.00
i-heptane	0.00
i-butene	0.00
i-pentane	0.00
propane	0.00
n butane	0.00
iso butane	0.00
t-2 butene	0.00
cis-2 butene	0.00
n pentane	0.00
1 pentene	0.00
2 methyl 1 butene	0.00
trans 2 pentene	0.00
2 methyl 2 butene	0.00
3 methyl pentane	0.00
methylcyclopentane	0.00
2,2 dimethylbutane	0.00
other	0.00

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 256

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	x
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	11.4	m	37.4	ft
Shell Diameter	4	m	13.1	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	10.75	m	35.3	ft
Tank Volume	143	m^3		
Working Volume	129	m^3	34078	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	Aluminium/Diffuse	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light	
	Aluminium/Specular	Grey/Medium	
	Aluminium/Diffuse	Red/Primer	

Note 2: Condition Options:	Light Rust	
	Dense Rust	
	Gunite Lining	

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	aluminium diffuse	note 1	
Paint Condition:	Good	Good/Poor	
Type:	cone	Cone/Dome/Flat	
Height (of cone/dome):	0.5	m	
Internal Floating Roof details:			
Self Supporting Roof:	Y	Y/N	Get info from Richard in terms of why we're saying it's
Number of Columns (supporting roof):	3		emissions that would be created in similar way) - Roof
Effective Column Diameter:	0.2	m	for stilling well, sampling well, etc.
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:	x		if can only have one option then go with mechanical sl
Liquid Mounted:			all other floating roof tanks (internal and external)
Vapour Mounted:	x		
Secondary Seal: None:	n/a		
Shoe Mounted:	n/a		
Rim Mounted:	n/a		
Deck Characteristics:			
Deck Type:	welded	Bolted/Welded	
Deck Fittings Category:	typical	note 3	
External Floating Roof details:			
Roof Type:		Pontoon/Deck	
Roof Fitting Category:		note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1	Ethanol

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	76165	52665	52627	52702	52765	52740	52790	52715	52,313	52,251	51,887	51,899	I	
Stock Level	76	53	53	53	53	53	53	53	52	52	52	52	m^3	
Stock Level	16,740	11,575	11,566	11,583	11,597	11,591	11,602	11,586	11,497	11,484	11,404	11,406	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	24	0	0	0	0	0	0	0	0	0	0	m^3	24
Turnover:	0.0016													
Ave Liq Height:	14.22												ft	
Chemical Name:	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	8.8	8.8	11.6	13.3	15.8	16.9	19.9	20.6	14.5	14.7	9.1	10	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)		
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 ethanol (modelled as RVP 12)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1771.434		803.52
Hexane (-n)	7.639392		3.47
Benzene	8.38539		3.80
Isooctane	3.14E-05		0.00
Toluene	9.201966		4.17
Ethylbenzene	0.603864		0.27
Xylene (-m)	2.513778		1.14
Isopropyl benzene	0.095472		0.04
1,2,4 - Trimethylbenzene	0.202467		0.09
Cyclohexane	1.160147		0.53
Methane			0.00
Unidentified Components	1741.631		790.00

Unidentified components comprise:			
		%	Emission kg/yr
Total	790.00		
i-hexane		4.78	37.76
i-heptane		1.53	12.09
i-butene		1.11	8.77
i-pentane		26.79	211.64
propane		1.25	9.88
n butane		22.95	181.31
iso butane		9.83	77.66
t-2 butene		1.21	9.56
cis-2 butene		0.98	7.74
n pentane		8.56	67.62
1 pentene		1.02	8.06
2 methyl 1 butene		1.93	15.25
trans 2 pentene		1.61	12.72
2 methyl 2 butene		1.04	8.22
3 methyl pentane		2.34	18.49
methylcyclopentane		1.66	13.11
2,2 dimethylbutane		1.23	9.72
other		10	79.00
	Total	100	788.58

Total	
Methane	0.00
Benzene	3.80
Butene	49.53
1,2,4 -Trur	0.09
Pentene	20.78
Xylene	1.14

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 257

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	
Internal Floating Roof Tank (fixed roof, floating deck)	x
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	11.4	m	37.4	ft
Shell Diameter	4	m	13.1	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	10.75	m	35.3	ft
Tank Volume	143	m^3		
Working Volume	129	m^3	34078	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	Aluminium/Diffuse	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:	White/White	Grey/Light		
	Aluminium/Specular	Grey/Medium		
	Aluminium/Diffuse	Red/Primer		

Note 2: Condition Options:	Light Rust	
	Dense Rust	
	Gunite Lining	

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	aluminium diffuse	note 1		
Paint Condition:	Good	Good/Poor		
Type:	cone	Cone/Dome/Flat		
Height (of cone/dome):	0.5	m		
Internal Floating Roof details:				
Self Supporting Roof:	Y	Y/N	Get info from Richard in terms of why we're	
Number of Columns (supporting roof):	3		emissions that would be created in similar wa	
Effective Column Diameter:	0.2	m	deck for stilling well, sampling well, etc.	
Rim Seal System (select type:):				
Primary Seal: Mechanical Shoe:	x		see note on 256	
Liquid Mounted:				
Vapour Mounted:	x			
Secondary Seal: None:	n/a			
Shoe Mounted:	n/a			
Rim Mounted:	n/a			
Deck Characteristics:				
Deck Type:	welded	Bolted/Welded		
Deck Fittings Category:	typical	note 3		
External Floating Roof details:				
Roof Type:		Pontoon/Deck		
Roof Fitting Category:		note 3		
Rim Seal System:				
Primary Seal: Mechanical Shoe:				
Liquid Mounted:				
Secondary Seal: None:				
Shoe Mounted:				
Rim Mounted:				

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1	Ethanol

LIQUID DETAILS:

	2022 Turnover												
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
Distillate / Crude Oil / Organic liquid													PD/CO/OL
Multi-Component?													S/M
Stock Level:	0	24023	23822	23922	23922	23860	23809	23596	23,483	23,421	23245	23245	I
Stock Level	0	24	24	24	24	24	24	24	23	23	23	23	m^3
Stock Level	0	5,280	5,236	5,258	5,258	5,244	5,233	5,186	5,161	5,147	5,109	5,109	gal
Input:	0	24	0	0	0	0	0	0	0	0	0	0	m^3 24
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3 1
Turnover:	0.1870												
Ave Liq Height:	5.66												ft
Chemical Name:	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	note 4
CAS Number:													
Ave Surface Temp:													C
Min Surface Temp:													C
Max Surface. Temp:													C
Bulk Liquid Temp:	8	8.7	10.5	14.8	16.6	17.3	19.8	21.2	14.6	14.6	9.1	10.1	C
Vapour Pressure:													psia
Liquid Mol Wt:													
Vapour Mol Wt:													

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5) : (note RVP = Reid Vapour Pressure)		
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Ethanol (modelled as RVP 12) (oxygenated with ethanol) speciation profile)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	1653.7320		750.13
Hexane (-n)	7.190413		3.26
Benzene	7.911131		3.59
Isooctane	0.00367		0.00
Toluene	8.728624		3.96
Ethylbenzene	0.576921		0.26
Xylene (-m)	2.404099		1.09
Isopropyl benzene	0.091866		0.04
1,2,4 - Trimethylbenzene	0.197035		0.09
Cyclohexane	1.093582		0.50
Methane	0		0.00
Unidentified Components	1625.529		737.34

Unidentified components comprise:			
		%	Emission kg/yr
Total	737.34		
i-hexane		4.78	35.24
i-heptane		1.53	11.28
i-butene		1.11	8.18
i-pentane		26.79	197.53
propane		1.25	9.22
n butane		22.95	169.22
iso butane		9.83	72.48
t-2 butene		1.21	8.92
cis-2 butene		0.98	7.23
n pentane		8.56	63.12
1 pentene		1.02	7.52
2 methyl 1 butene		1.93	14.23
trans 2 pentene		1.61	11.87
2 methyl 2 butene		1.04	7.67
3 methyl pentane		2.34	17.25
methylcyclopentane		1.66	12.24
2,2 dimethylbutane		1.23	9.07
other		10	73.73
	Total	100	736.01

Total	
Methane	0.00
Benzene	3.59
Butene	46.23
1,2,4 -Trun	0.09
Pentene	19.39
Xylene	1.09

DATA FOR CALCULATION OF FUGITIVE EMISSIONS
STORAGE TANK DETAILS

TANK REFERENCE:	Tank 803

TANK TYPE (Select one of:):

Horizontal Tank	
Vertical Fixed Roof Tank	x
Internal Floating Roof Tank (fixed roof, floating deck)	
External Floating Roof Tank (roof floats on the liquid)	
Domed External Floating Roof Tank (external floating roof tank retrofit with fixed roof)	

TANK DETAILS:

Shell Height	11.8	m	38.7	ft
Shell Diameter	10.6	m	34.8	ft
Tank Construction	welded	Welded/Riveted		
Maximum Liquid Height	6.5	m	21.3	ft
Tank Volume	970	m^3		
Working Volume	475	m^3	125482	US Gal
Is Tank Heated?	N	Y/N		
Shell: External Colour/Shade:	blue	note 1		
External Condition:	Good	Good/Poor		
Internal Shell Condition:	Light Rust	note 2		
Breather Vent Settings: Vacuum Settings:	n/a	psig		
Pressure Settings:	n/a	psig		

Note 1: Colour/Shade Options:		
	White/White	Grey/Light
	Aluminium/Specular	Grey/Medium
	Aluminium/Diffuse	Red/Primer

Note 2: Condition Options:	
	Light Rust
	Dense Rust
	Gunite Lining

ROOF DETAILS

ROOF DETAILS:

Roof: Colour/Shade:	blue	note 1	
Paint Condition:	good	Good/Poor	
Type:	Cone	Cone/Dome/Flat	
Height (of cone/dome):	1.5	m	4.9212
Internal Floating Roof details:			
Self Supporting Roof:		Y/N	
Number of Columns (supporting roof):			
Effective Column Diameter:		m	
Rim Seal System (select type:):			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Vapour Mounted:			
Secondary Seal: None:			
Shoe Mounted:			
Rim Mounted:			
Deck Characteristics:			
Deck Type:		Bolted/Welded	
Deck Fittings Category:		note 3	
External Floating Roof details:			
Roof Type:		Pontoon/Deck	
Roof Fitting Category:		note 3	
Rim Seal System:			
Primary Seal: Mechanical Shoe:			
Liquid Mounted:			
Secondary Seal:			
None:			
Shoe Mounted:			
Rim Mounted:			

Note 3: enter either Typical or Detail. If Detail is entered then attach information on tank connections, entries, etc.

DETAILS ON THE LIQUIDS STORED

TANK CONTENTS:

Number of Liquids stored during the year:	1

LIQUID DETAILS:

	2022 Turnover													
Chemical Category:	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
Distillate / Crude Oil / Organic liquid													PD/CO/OL	
Multi-Component?													S/M	
Stock Level:	13436	13436	13436	13436	13436	13436	13436	13436	13436	13436	13,436	13,436	**I**	
Stock Level	13	13	13	13	13	13	13	13	13	13	13	13	m^3	
Stock Level	2,953	2,953	2,953	2,953	2,953	2,953	2,953	2,953	2,953	2,953	2,953	2,953	gal	
Input:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Output:	0	0	0	0	0	0	0	0	0	0	0	0	m^3	0
Turnover:	0.0000													
Ave Liq Height:	0.50												ft	
Chemical Name:	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	Slops	note 4	
CAS Number:														
Ave Surface Temp:													C	
Min Surface Temp:													C	
Max Surface. Temp:													C	
Bulk Liquid Temp:	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	C	
Vapour Pressure:													psia	
Liquid Mol Wt:														
Vapour Mol Wt:														

Note 4: AP42 default liquids:

Crude Oil:	1. Crude Oil (RVP 5)	: (note RVP = Reid Vapour Pressure)	
Petroleum Distillates:	2. Distillate Fuel Oil No.2	6. Gasoline (RVP 6)	10. Gasoline (RVP 10)
	3. Jet Kerosene	7. Gasoline (RVP 7)	11. Gasoline (RVP 11)
	4. Jet Naphtha (JP-4)	8. Gasoline (RVP 8)	12. Gasoline (RVP 12)
	5. Residual Oil No.6	9. Gasoline (RVP 9)	13. Gasoline (RVP 13)

Tanks 4.09d Fugitive Emissions Summary: Assumptions: 0% Methane in total emissions

2022 Slops (modelled as jet kerosene)

Component	Emission Lbs/yr		Emission kg/yr
Total Emission	188.854422		85.66
Hexane (-n)	2.64552582		1.20
Benzene	1.29262708		0.59
Isooctane			0.00
Toluene	12.1659032		5.52
Ethylbenzene	3.82449655		1.73
Xylene (-m)	7.77470638		3.53
Isopropyl benzene			0.00
1,2,4 - Trimethylbenzene			0.00
Cyclohexane			0.00
Methane			0.00
Unidentified Components	161.151163		73.10

Unidentified components comprise:			
		%	Emission kg/yr
Total	73.10		
i-hexane		4.78	3.49
i-heptane		1.53	1.12
i-butene		1.11	0.81
i-pentane		26.79	19.58
propane		1.25	0.91
n butane		22.95	16.78
iso butane		9.83	7.19
t-2 butene		1.21	0.88
cis-2 butene		0.98	0.72
n pentane		8.56	6.26
1 pentene		1.02	0.75
2 methyl 1 butene		1.93	1.41
trans 2 pentene		1.61	1.18
2 methyl 2 butene		1.04	0.76
3 methyl pentane		2.34	1.71
methylcyclopentane		1.66	1.21
2,2 dimethylbutane		1.23	0.90
other		10	7.31
	Total	100	72.97

Total	
Methane	0.00
Benzene	0.59
Butene	4.58
1,2,4 -Trur	0.00
Pentene	1.92
Xylene	3.53

FUGIVE EMISSIONS FROM STORAGE TANKS (EXPRESSED AS TOTAL TOC)

AP42 CALCULATIONS

data provided by PUMA

Turnover
Av Liquid Height

AP42 Methods Tanks 4.09b Calculations	kg/yr
Total Emissions	**98,461.68**
comprising:	
Hexane (-n)	98,461.7
Benzene	543.6
Isooctane	1.4
Toluene	868.5
Ethylbenzene	135.4
Xylene (-m)	742.1
Isopropyl benzene	
2,4 - Trimethylbenzene	353.9
Cyclohexane	272.5
Methane	0.0
nidentified Components	92,904.5

450/2-90-001a Methods	kg/yr
d components comprise:	
i-hexane	0.0
i-heptane	0.0
i-butene	0.0
i-pentane	0.0
propane	0.0
n butane	0.0
iso butane	0.0
t-2 butene	0.0
cis-2 butene	0.0
n pentane	0.0
1 pentene	0.0
2 methyl 1 butene	0.0
trans 2 pentene	0.0
2 methyl 2 butene	0.0
3 methyl pentane	0.0
methylcyclopentane	0.0
2,2 dimethylbutane	0.0

Total
Methane
Benzene
Butene
1,2,4 -Trumethylbenzene
Pentene
Xylene