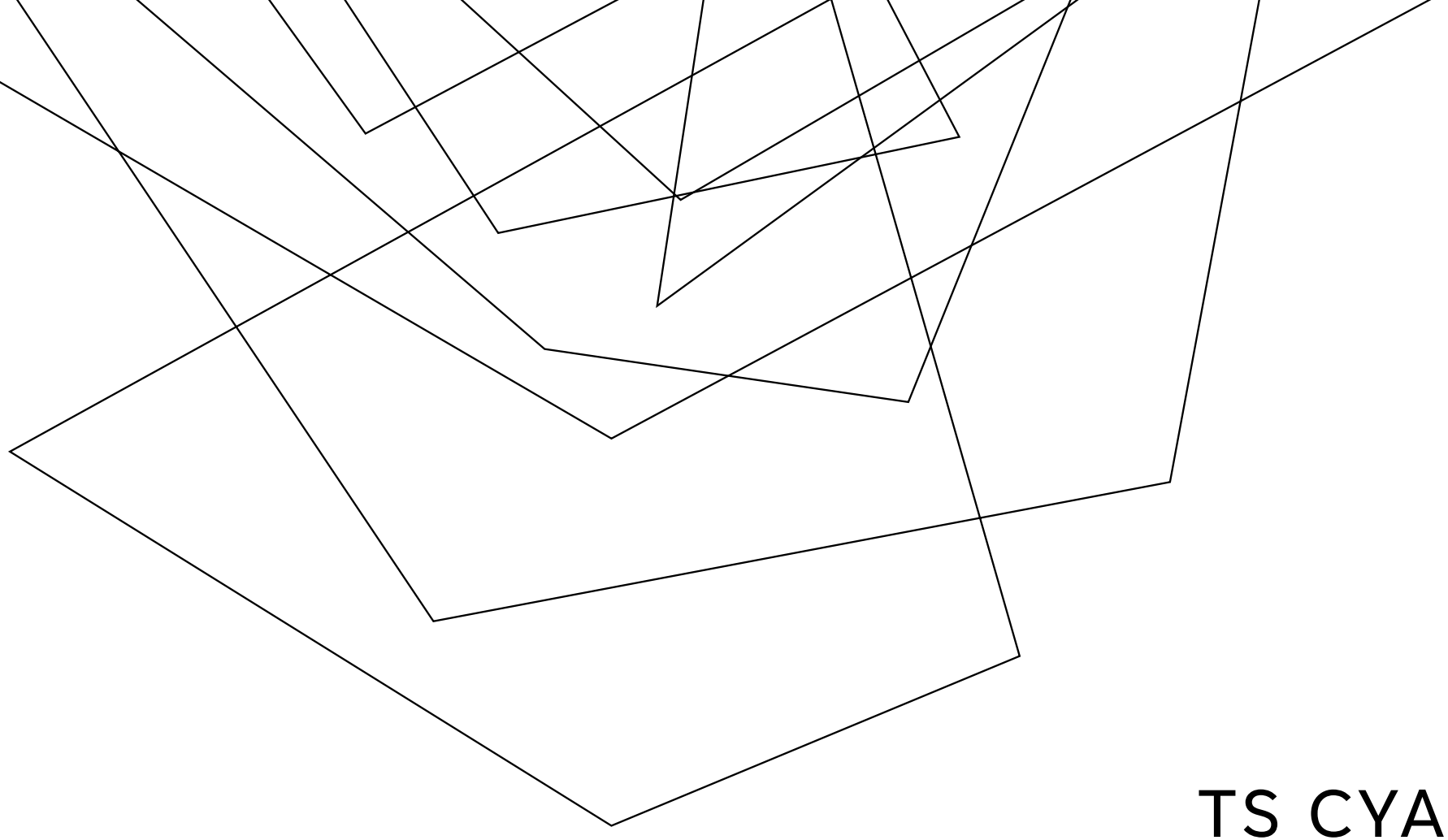


TS CYANERGY OPTIMIZER

Tableau mobile app and dashboards

INTRODUCTION

The idea was to provide the operator of the equipment a dashboard for monitoring emissions and fuel costs

Key points

- Quick to understand
- Easy to tell status and actions required
- Simple dashboard

Basic idea

- Green light means optimal configuration for low emissions and fuel costs
- Yellow light means change could improve
- Red light means inefficient condition, change needed

OPERATOR KPI MOBILE APP

The main KPI Application shows current configuration status and suggested-optimal number of engines that should be active with current engines load. KPI status is defined on the Tableau project in the [Engine Flag] variable. This variable presents values This variable is dependent on the time that current configuration lasts:

Definition:

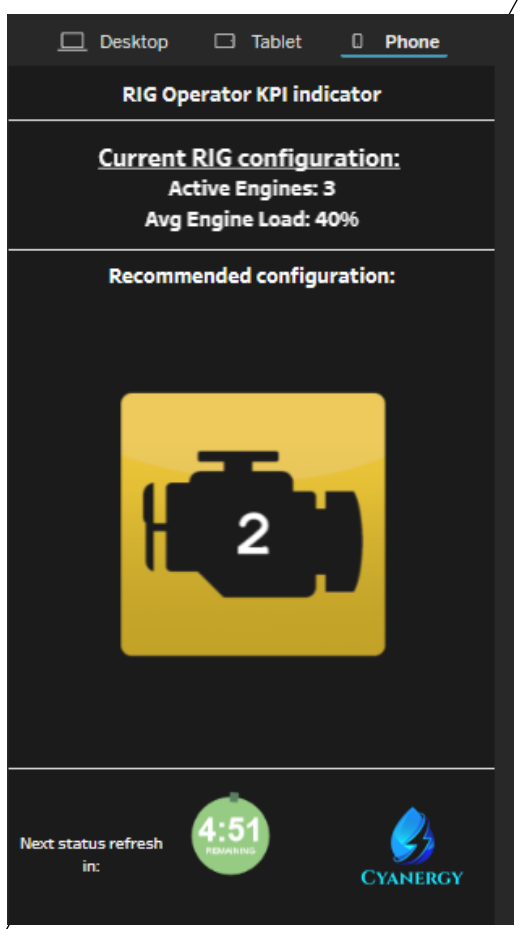
IF [Config Duration]/60<21 THEN [Config]

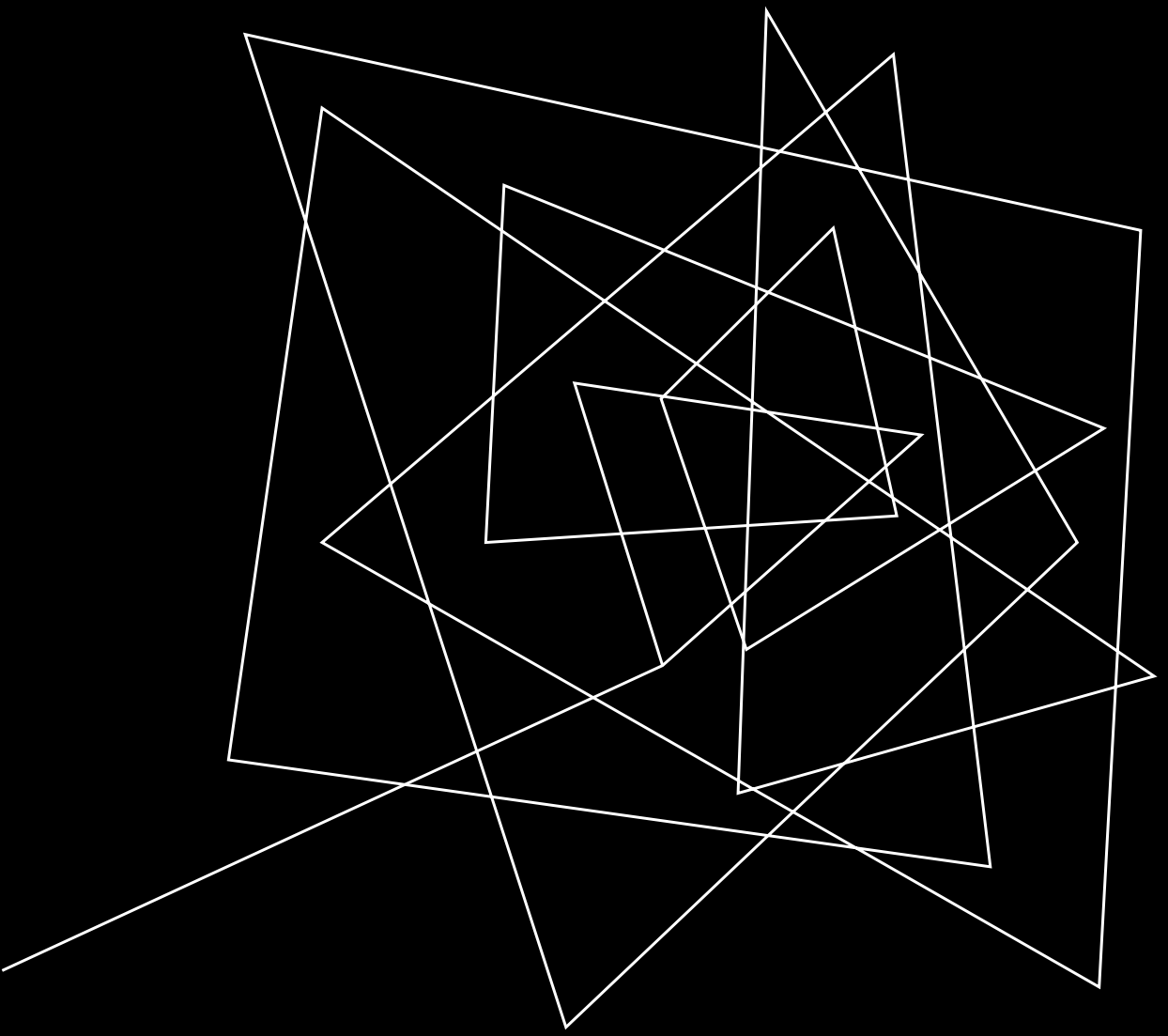
ELSEIF [Config Duration]/60>=21 AND [Config Duration]/60<41 THEN [Config21]

ELSEIF [Config Duration]/60 > 41 THEN [Config41] END

Data between the KPI and data source is refreshed every 5 minutes. This is based on the Tableau Extension “Auto Refresh by Starschema. This extension is supported by Tableau:

https://extensions.tableauusercontent.com/sandbox/auto-refresh/index.html





MANAGMENT DASHBOARDS

Trends and stistics

Executives reports - efficiency

CYANERGY

Compare trend by: week

Rig Name: (All)

Monthly Comparison - Time Spent in zones

Actual month time:	8:08:06:00	3:02:51:00		1:14:14:00
Previous month time:	33:06:30:38	26:07:26:00	0:00:09:00	0:18:42:00

Trend by RIG

Rig Name				
SD Achiever	Actu: 2:08:21:00 -8.05% Prev: 2:13:17:00	Actu: 2:07:10:00 -48.43% Prev: 4:10:58:00	Actu: 0:00:00:00 0.00% Prev: 0:00:00:00	Actu: 1:02:36:00 -12.26% Prev: 1:06:19:00
SD Chaophraya	Actu: 4:05:17:00 -29.36% Prev: 5:23:23:00	Actu: 0:14:17:00 -40.36% Prev: 0:23:57:00	Actu: 0:00:00:00 -100.00% Prev: 0:00:03:00	Actu: 0:00:00:00 -100.00% Prev: 0:00:01:00

Dashboard presents trend over the monthly period of total time spent in Green/Yellow/Red and Idle status.
Green status relates to the highest efficiency - in this configuration, Rig works at its best.
Yellow status should not be maintained for a long time. In this case, the Rig is not in its highest efficiency.
Red status should be avoided. This is highly insufficient configuration of the rig.
Gray status presents idle status when engines are off.

Executive dashboard time | Executive dashboard emissions | Emissions weekly report

Executives reports - emissions

CYANERGY

Compare trend by: week

Rig Name: (All)

Monthly Comparison - Gas & Fuel emissions

Emissions for:	CO2	CO	NO2	NO	CH4	CO2e	Fuel
Actual month:	496,766	1,296	105.2	1,891		496,766	141,932
Previous month:	1,343,528	3,446	212.4	5,085		1,343,693	872,336

Trend by RIG

Rig Name	CO2	CO	NO2	NO	CH4	CO2e	Fuel
SD Achiever	0.00% cp: 0.00 pp: 0.00	0.00% cp: 0.00 pp: 0.00	0.00% cp:0.00 pp: 0.00	0.00% cp: 0.00 pp: 0.00	0.00% cp: 0.00 pp: 0.00	0.00% cp: 0.00 pp: 0.00	-53.91% cp: 49,277 pp: 106,910
SD Chaophraya	-33.25% cp: 414,143.59 pp: 620,424.29	-30.03% cp: 1,088.56 pp: 1,555.86	-19.20% cp:90.16 pp: 111.58	-47.91% cp: 1,590.15 pp: 2,335.60	0.00% cp: 0.00 pp: 0.00	-33.25% cp: 414,182.57 pp: 620,485.19	-33.31% cp: 69,934 pp: 104,863

Dashboard presents trend over the monthly period of total emission values.
Green and descending trend reflects optimal option, where the Gas/Fuel emissions are lower than in previous time period.
Yellow and plateau trend reflects to no change since previous period.
Red and growing trend should be avoided. This reflects growing gas emissions or fuel consumption.

Emissions weekly report

CYANERGY

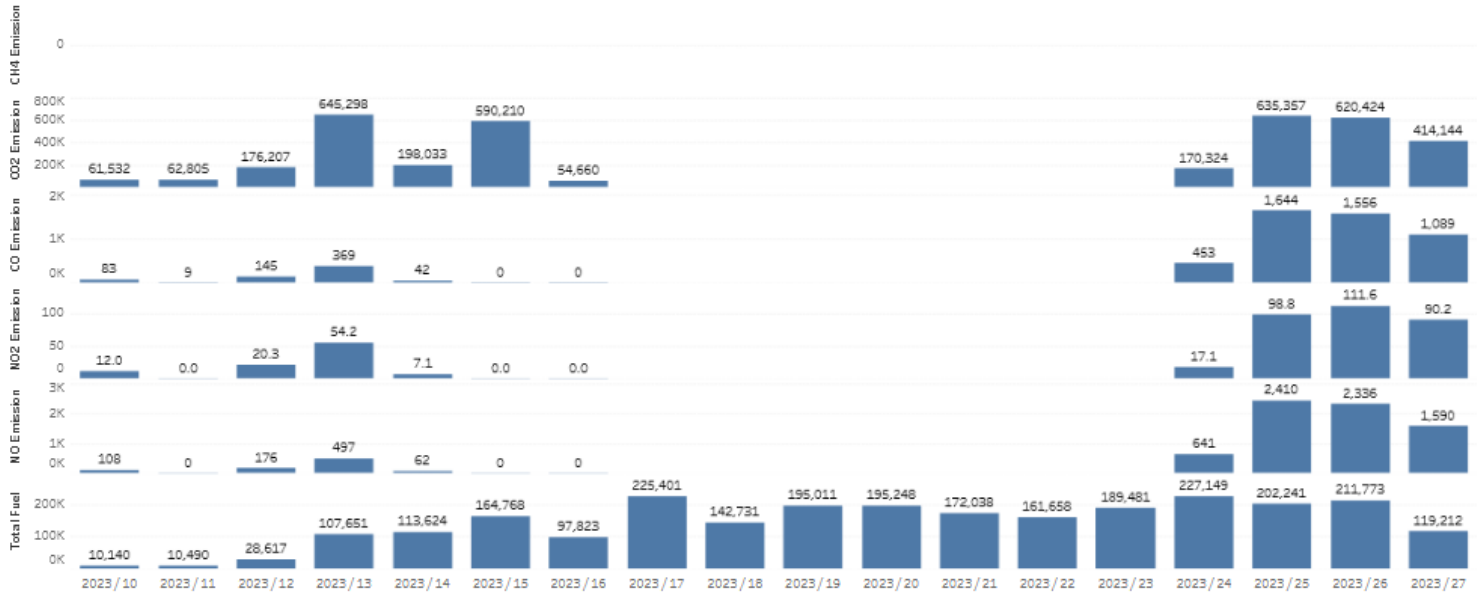
Year/Week: (All)

Rig Name: (All)

Weelky emissions Table

Year/Week	CO2 Emission	CO Emission	CH4 Emission	NO Emission	NO2 Emission	Total Fuel
2023/27	414,143.59	1,088.56		1,590.15	90.16	119,212
2023/26	620,424.29	1,555.86		2,335.60	111.58	211,773
2023/25	635,357.17	1,644.42		2,409.89	98.75	202,241
2023/24	170,323.85	452.78		640.90	17.12	227,149
2023/23						189,481
2023/22						161,658
2023/21						172,038
2023/20						195,248
2023/19						195,011
2023/18						142,731
2023/17						225,401
2023/16	54,660.02	0.00		0.00	0.00	97,823
2023/15	590,210.18	0.00		0.00	0.00	164,768
2023/14	198,033.19	42.04		62.05	7.05	113,624
2023/13	645,297.94	369.39		497.00	54.18	107,651
2023/12	176,207.03	144.59		175.67	20.30	28,617
2023/11	62,805.10	8.50		0.00	0.00	10,490
2023/10	61,532.02	82.80		108.37	11.97	10,140

Weekly emissions Chart View



Gas Emissions Dashboard | Gas Emission Details | Gas Emissions by RIG

CO2 Gas Emissions

CYANERGY

Analysis Period: This month | RIG No. Chaophraya | Comparison date by date: week

Gas Emissions by RIG | Main Page

Total Emissions	Emisssions Previous Period	Emisssions Current Period
496,721	620,424	414,144

Gas Emissions

July 6, 2023	0:0:0	58.00	0.01%
	0:1:0	70.13	0.01%
	0:2:0	54.40	0.01%
	0:3:0	53.57	0.01%
	0:4:0	69.68	0.01%
	0:5:0	52.25	0.01%
	0:6:0	49.59	0.01%
	0:7:0	71.87	0.01%
	0:8:0	54.58	0.01%
	0:9:0	51.33	0.01%
	0:10:0	77.29	0.02%
	0:11:0	51.93	0.01%
	0:12:0	51.31	0.01%

Trend do date