



# Rompetrol Rafinare S.A.

# PRODUCTION ACTIVITY PROGRAM 2022

1. PETROMIDIA REFINERY



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#### 2022 Plan for Production activity Rompetrol Refinery

#### Petromidia Refinery

The main assumptions for production plan and sales plan 2022 Production Plan for PEM – 2022

TOTAL THROUGHPUT: 5,664,147 mt out of which: 4,967,520 mt crude oil, 696,626 mt other feedstock out of which 66,172 mt Straight Run Gasoil in Crude Unit and 275,776 mt Straight Run Gasoil in Hydrotreaters.

#### 1. Feedstock

The types of feedstock planned to be processed in 2022 (mt/year):

- REBCO: 3,606,682
- Siberian Light Crude Oil: 1,005,153
- EBCO (Iraq origin, similar quality to Kirkuk): 170,000
- CPC Crude Oil: 185,685
- Straight Run Gasoil: 66,172

Crude unit throughput: 5,033,693 mt/year (14,805 mt/day for 340 processing days).

Density and Sulphur (average value) for Crude unit throughput resulted after PIMS simulation: 0.867 g/cm3, 1.28 % wt sulphur content.

#### 2. Commercial Assumptions

#### 2.1 Structure of products

Product	domestic	export	total
Froduct	mt/year	mt/year	mt/year
Auto Gasoline	328,979	878,499	1,207,479
Auto Diesel	1,914,057	778,150	2,692,207
Jet	253,470	8,199	261,668
Fuel oil	180,657	19,254	199,911
Propylene	145,641	-	145,641



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Coke	21,344	220,293	241,638
Sulphur	-	49,125	49,125
Other products	686,973	34,500	721,473

- **2.1.1** Auto fuels for domestic market (mt/year) total 2,243,036
- 2.1.2 Auto fuels for export (mt/year)- total 1,656,649
- **2.1.3** Products to be delivered to Vega refinery (452,329 mt/year) from which:
  - 201,511 Raffinate
  - 63,018 C5-C6 cut
  - 11,800 Hydrotreated kerosene
  - 500 Slurry
  - 176,000 Fuel oil

#### **2.1.4** Others:

Jet A1-253,470 mt/year (for domestic market)

2022 White Products yield is 85.54 % wt.

Note: Regarding: raffinate, C5-C6 cut, hydrotreated kerosene, slurry and fuel oil, these products will be transfered to Vega Refinery to be processed in order to obtain valuable products.

Auto fuels are sold on domestic market to Rompetrol Downstream (Gasoline Europlus 10 ppm, Gasoline Efix 95, Gasoline Efix S 98, Gasoline RON 98, Diesel Euro 5, Efix Diesel, Efix S 55 Diesel, 55 Diesel).

The other products are sold on domestic market through: Rompetrol Gas, Rompetrol Downstream, Air BP Sales, OMV-Petrom, Heidelbergcement, Lafarge, Holcim, Mol Romania, Oscar Downstream, Socar, Lukoil.

On the export market the products are sold to: KMG Trading (Moldova, Bulgaria, Hungary, Serbia, Greece, Turkey, Georgia, Lebanon, Israel, Egypt), Rompetrol Moldova, Rompetrol Georgia, Rompetrol Bulgaria, and others.

Auto fuels are sold 57.5 % on domestic market and 42.5 % on export market.

#### 3. Unfinished products

The production plan was done without consumption/accumulation of unfinished products.

#### 4. Products Specifications / Technical Assumptions

Gasoline production for domestic market contents min. 8.0% v/v Bio-ethanol according with internal reglementation.

Diesel production for domestic market contents min. 6.5% v/v Bio-Diesel according according with internal reglementation. During Winter period will be produced Extreme Diesel 55, which is a unique product in Romania having CFPP -35 °C and 55 cetane number, the highest cetane number from Romania market.

During 17th of March and 10th of April the Refinery will be in total shut down for 25 days. In this period ISCIR activities for reauthorization of the main equipments and change of the catalyst: 122-Diesel Hydrotreater, 125-Diesel Hydrotreater, Naphtha Hydrotreater and it will be done also Platforming catalyst regeneration and Delayed Coker heater decoking

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#### 5. Operational Results

- Gross Refinery P/L: 321,800 mil\$
- Gross Refinery Margin P/L: 56.81 \$/mt

#### The table below shows a summary of 2022 PEM-production plan:

	tons/year
Total Feedstock	5,664,147
Crude oil	5,033,693
Other raw materials	630,454
<b>Finished Products</b>	5,519,140
Gasoline	1,408,989
Jet	261,668
Diesel	2,692,707
Fuel oil	199,911
Gases	246,521
Propylene	145,641
LPG	272,941
Petroleum coke	241,638
Sulphur	49,125
Total Loss	145,004

#### THE BOARD OF DIRECTORS:



**ROMPETROL RAFINARE SA** 

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# Rompetrol Rafinare S.A.

# **PRODUCTION ACTIVITY PROGRAM 2022**

2. VEGA REFINERY

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# Production Plan 2022 Rompetrol Rafination

### **Vega Refinery**

### The main assumptions for production plan and sales plan 2022

#### 1. Feedstock

Vega refinery will process raw material from Petromidia Refinery. The total feedstock for 2022 will be **452,847** tonnes in the following structure:

- $\circ$  C5-C6 cut 63,018 tonnes
- $\circ$  raffinate 201,511 tonnes
- $\circ$  hydrotreated kerosene 11,800 tonnes
- $\circ$  slurry 500 tonnes
- $\circ$  fuel oil 176,000 tonnes
- marker (OMM Blue) 18 tonnes

### 2. Structure of products

	domestic	export	TOTAL
FINITE PRODUCTS	,000 mt/year	,000 mt/year	,000 mt/year
Ecological solvents	0.525	40.760	41.285
n-Hexane	3.651	86.989	90.640
Naphtha gasoline	30.048	100.763	130.811
White spirit	2.750	3.367	6.117
Heating oil	8.911	-	8.911
Fuel oil	31.757	-	31.757
Bitumen	140.245	-	140.245
TOTAL	217.887	231.879	449.766



Vega refinery is the only east European producer of N-hexane, used in polypropylene production and extraction of vegetable oils in food industry.

Vega refinery is also the only romanian producer of Ecological Solvents – Rompetrol SE, products with lower sulphur and aromatics content and lower toxicity level.

Total volume of petroleum products estimated to be delivered in 2022 is 449,766 tonnes, out of which:

- 48.44% domestic market;

- 51.56% export market.

On the export market the products are sold in India, Turkey, Ukraine, Moldovia, Serbia, Kazahstan, Uzbekistan, Hungary, Germany, France, Italy, Belarus, Bulgary, Poland, Bosnia, Czech Republic, Slovakia and Rusia.

#### 3. Products Specifications

The finished products for Vega Refinery are produced according to Quality Specific Standards that are in use at the moment and comply with the internal and international standards for these products.

The table below shows a summary of 2022 VEGA-production plan:

Raw materials	452.847
Crude oil	-
Other feedstock	452.847
Finite products	449.766
Ecological solvents	41.285
n-Hexane	90.640
Naphtha gasoline	130.811
White spirit	6.117
Gasoil	4.114
Light liquid fuel	4.797
Fuel oil	31.757
Bitumen	140.245
Consumption	3.081



- 4. Operational results
- Gross Refinery P/L: 58,560 k\$
- Gross Refinery Margin : 129.3 \$/mt

# THE BOARD OF DIRECTORS:

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# Rompetrol Rafinare S.A.

# **PRODUCTION ACTIVITY PROGRAM 2022**

3. PETROCHEMICALS DIVISION

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# 2022 Plan for Production activity Rompetrol Refinery

# PETROCHEMICALS AREA

The main assumptions for production plan and sales plan 2022

# **Production Plan for PETROCHEMICALS AREA – 2022**

# **POLYMERS PRODUCTION: 161,350 mt, out of which:**

# - PP : 87,100 mt,

## - LDPE : 74,250 mt,

# **PROPYLENE TYPE P PRODUCTION: 26,937 mt**

## 1. Feedstock

Raw materials planned to be processed in 2022 (mt/year):

- Propane-propylene mixture : 145,641 mt from FCC
- Ethylene : 75,958 mt
  - 2. Sales (mt/year)

Polymers Sale	161,350	Dom	estic	Exp	oort
PP	87,100	44,682	51.3%	42,418	48.7%
LDPE	74,250	37,868	51.0%	36,383	49.0%
Propylene type P sale	26,000	26,000	100%		



# The table below shows a summary of 2021 PETROCHEMICAL AREA-production plan:

Production Budget\_2022

tone/year

Total Feedstock	221,598
Propane-propylene mixture	145,641
Ethylene	75,958
Polymers production	161,350
PP	87,100
LDPE	74,250
Propylene type P production	26,937

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