



**LOHRMANN**  
INTERNATIONAL

Ref.-No.: ProOil-278



## **20,000 bpd Dismantled Oil Refinery FOR SALE AND RELOCATION**

Presented by: Lohrmann International Germany

## FACTS

The Refinery was built at 20,000 BPD by UOP/Chyoda in 1974 and mothballed in 1998.

It was at very good operational condition when it was shutdown. The plant was designed for heavy crude and was later modified to handle Arab Light.

It was regularly and thoroughly maintained and refurbished.

The refinery is dismantled and can be ready for shipping on short notice.


### **Timing**

Erection is estimated to be concluded within 12 to 14 months from date of receiving all required licenses.

### **Packaging**

Eighty Containers plus break bulk of heavy large sized machinery.

## PRODUCTS

| REFINERY PRODUCTION | BBL/Day       |  |
|---------------------|---------------|--|
| LPG                 | 503           |  |
| Premium GASOLINE    | 8,333         |  |
| DIESEL              | 9,000         |  |
| BITUMEN             | 1,500         |  |
| FUEL OIL            | 344           |  |
| <b>TOTAL</b>        | <b>19,681</b> |  |

Naphtha and Kerosene can be produced separately away from the Gasoline mix.

### Crude

The refinery was designed for Arabian Heavy Crude but later was modified to handle Arabian Light.

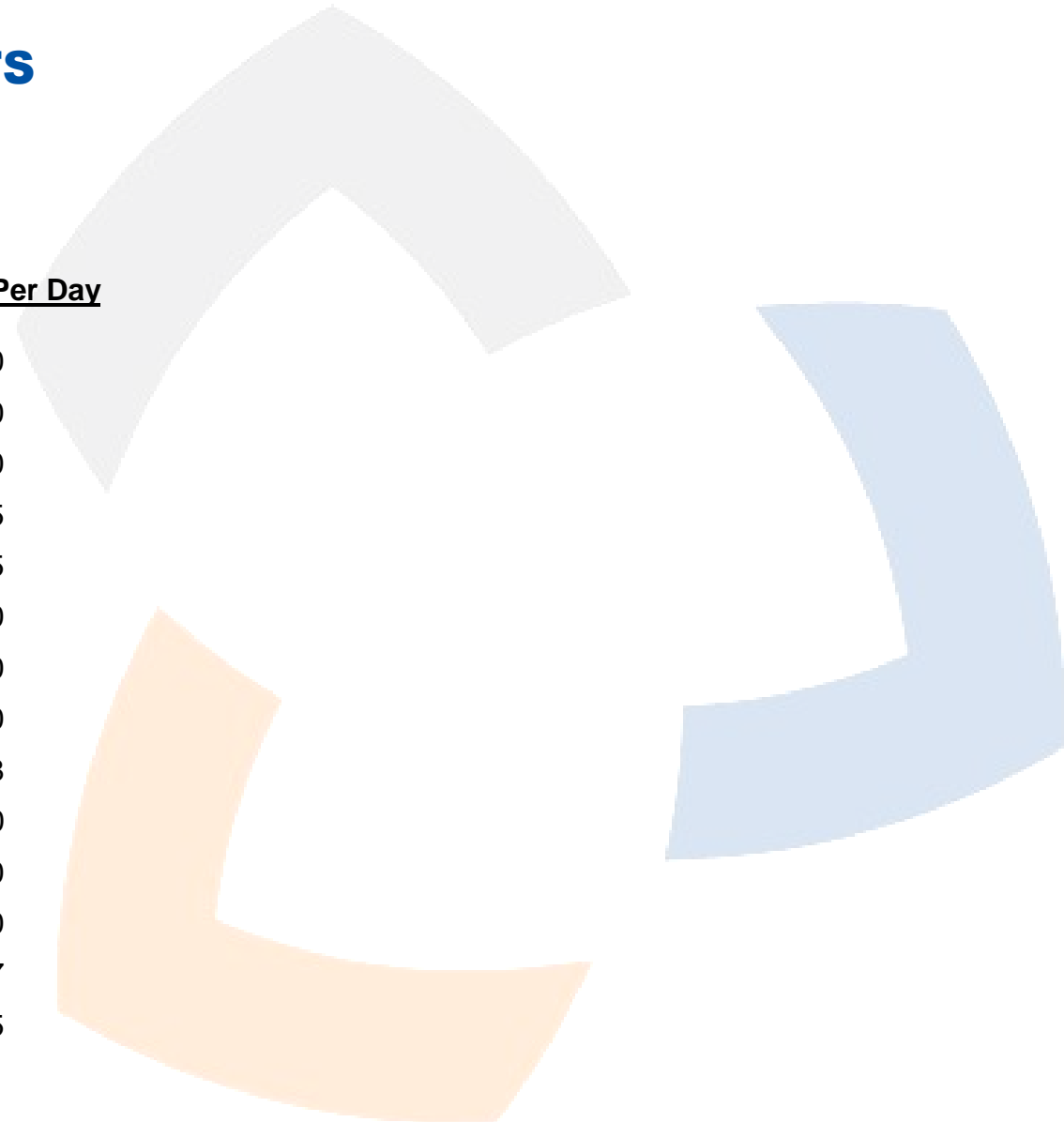
## Crude Assay Parameter Arab Light

|                                 |      |
|---------------------------------|------|
| API                             | 31.4 |
| Sulfur Wt%                      | 2.47 |
| Nitrogen ppm                    | 1350 |
| Acid No mg KOH /gm              | 0.23 |
| TBP Yields, Vol%                |      |
| Butane & Lights Vol%            | 3.0  |
| Lt Gasoline Vol%                | 6.6  |
| Lt Naphtha Vol%                 | 10.8 |
| Heavy Naphtha Vol%              | 9.6  |
| Kerosene Vol%                   | 9.2  |
| Gas Oil ( EP 3430C ) Vol%       | 13.4 |
| Atmospheric Residue Vol%        | 47.4 |
| Vacuum Gas Oil (EP 5650 C) Vol% | 27.5 |
| Vacuum Residue Vol%             | 19.9 |

## CAPACITY & COMPONENTS

The components are as follows:

| <u>Refinery Unit</u>                  | <u>Capacity</u> | <u>Barrel Per Day</u> |
|---------------------------------------|-----------------|-----------------------|
| 1 Crude Distillation Unit             |                 | 20,000                |
| 1 Vacuum Distillation Unit            |                 | 6,000                 |
| 2 Vacuum Distillation Unit            |                 | 5,000                 |
| 1 Saturate Gas Plant (Reformer)       |                 | 5,355                 |
| 1 LSR Gasoline Merox & LPG Absorber   |                 | 1,095                 |
| 1 Naphtha Unifier Unit                |                 | 2,410                 |
| 1 Platformer                          |                 | 5,660                 |
| 1 Hydrocracker Isomax                 |                 | 6,320                 |
| 1 Hydrogen Plant, NM <sup>3</sup> /hr |                 | 18,478                |
| 1 Asphalt Oxidizer                    |                 | 500                   |
| 2 Asphalt Oxidizer                    |                 | 3,600                 |
| 1 Amine Unit, Nm <sup>3</sup> /h      |                 | 2,960                 |
| 1 Waste Water Stripper                |                 | 857                   |
| Visbreaker (Idel)                     |                 | 2,805                 |



## UTILITIES

Electrical Generators 10 MW  
Instr air  
Cooling Towers  
Steam Boiler..etc

### Hydrocrakers:

DHC Isomax Reactor, LX-V1002

Isomax HC Reactor LX-V1003

Internal Pressure, PSI

2210

2215

Internal Temperature, F

875

825

Corrosion Allowance, Inch

0.125

0.125

Vessel Head Hemispherical

UOP Spec # 323 Rev 12, 9187C-326

Code ASME Section VIII

Material Includes Alloy Lining

Design Load, Lb

109500

119800



## UTILITIES

Internal Diameter, ft 7

Tangent Length, ft 52.6 63

Catalyst Bed Height after slump, ft 51.7 62

Outlet Basket:

Catalyst Support Design Press Diff, PSI 100

Catalyst Support material SS 321 or 347

Vessel Trays HP Separator

No of Bubble Trays 2 Trap

Below 2

Material

CS Diameter, Inch 4





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