

## Truck and Rail Product Allocation

The purpose of this attachment is to (1) estimate the volume of product (propane and butane) coming in to storage and leaving storage by either pipeline, rail or truck; and (2) determining how this relates to truck and rail traffic volume. The Project will store 1.5 million barrels of propane in Gallery 1 and 600,000 barrels of butane in Gallery 2.

The manner in which product will be coming into the facility and leaving the facility is as follows:

### In:

- For Propane, 90% of the product will come in by pipeline and 10% by rail.
- For Butane, 75% of the product will be brought in by pipeline and 25% by rail.

### Out:

- For Propane, 75% of the product will leave by truck, 15% by pipeline and 10% by rail.
- For Butane, 75% of the product will leave by rail and 25% will leave by truck.

### **Trucks (loaded trucks out)**

As noted above, trucks will be used to transport product out of the facility.

#### Propane

75% x 1,500,000 barrels = 1,125,000 barrels

1,125,000 barrels ÷ 345 barrels per truck<sup>1</sup> = 3,261 trucks per year

#### Butane

25% of 600,000 barrels = 150,000 barrels

150,000 barrels ÷ 345 barrels per truck = 435 trucks

3261 – Propane

+435 – Butane

3696 loaded trucks out per year

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<sup>1</sup> See Note 2.

$3696 \div 182 \text{ days}^2 = 20.3 \text{ loaded trucks/day}$

## **Rail**

### **Propane – In**

$10\% \times 1,500,000 \text{ barrels} = 150,000 \text{ barrels}$

$150,000 \text{ barrels} \div 762 \text{ barrels per car}^3 = 197 \text{ rail cars}$

### **Propane – Out**

$10\% \times 1,500,000 \text{ barrels} = 150,000 \text{ barrels}$

$150,000 \text{ barrels} \div 762 \text{ barrels per car} = 197 \text{ rail cars}$

### **Butane – In**

$25\% \times 600,000 \text{ barrels} = 150,000 \text{ barrels}$

$150,000 \text{ barrels} \div 762 \text{ barrels per car} = 197 \text{ rail cars}$

### **Butane – Out**

$75\% \times 600,000 \text{ barrels} = 450,000 \text{ barrels}$

$450,000 \text{ barrels} \div 762 = 591 \text{ rail cars}$

Total Rail Cars = 1,182

Assuming 261 weekdays in a work year, the average number of rail cars in or out per day is 4.5 cars. This is just an average and some days may come close to the maximum of 32 rail cars and some days there may be no product coming in or leaving the facility by rail. However, if a full train load of 32 cars is utilized every time, this consumes only 37 days of rail activity per year. The level of activity via rail will depend on demand and location of markets.

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<sup>2</sup> See endnote 3.

<sup>3</sup> See endnote 4.

## ENDNOTES:

1. Underground Storage Capacities  
Propane = 1,500,000 barrels  
Butane = 600,000 barrels
2. Large Truck = 14,500 gallons = 345 barrels
3. 182 days – represents the winter months from October 1 – March 31
4. Rail Car = 32,000 gallons = 762 barrels