



Tesoro Wilmington Refinery 2016 Rule 1118 Quarterly Flare Emissions

Emission Target (Includes the combined totals from the <u>Carson Sulfur Recovery Plant</u> and Wilmington Refinery facilities)

| 2016 SOx Emissions Target (lbs) | Year-to-Date SOx Emissions (lbs) | |
|---------------------------------------|--|--------------------------------------|
| 36,000 | 5,167.9 | Tesoro, Wilmington Refinery |
| | 16.0 | Tesoro, Carson Sulfur Recovery Plant |
| | 5,183.9 | Total Combined Emissions |

Quarter 1 (January 1, 2016 - March 31, 2016):

| Flare ID | Total Gas Flow | Emissions (lbs) | | | | | |
|----------|----------------|-----------------|-------|-------|-------|---------|--|
| Flate ID | (scf) | PM-10 | NOx | ROG | CO | SOx | |
| LAR | 10,214,135 | 64.0 | 709.0 | 149.0 | 849.0 | 4,805.0 | |
| Total | 10,214,135 | 64.0 | 709.0 | 149.0 | 849.0 | 4,805.0 | |

Quarter II (April 1, 2016 - June 30, 2016):

| Flare ID | Total Gas Flow | Emissions (lbs) | | | | | |
|----------|----------------|-----------------|-------|------|-------|------|--|
| Flate ID | (scf) | PM-10 | NOx | ROG | CO | SOx | |
| LAR | 6,814,652 | 53.8 | 869.6 | 55.4 | 284.6 | 38.7 | |
| Total | 6,814,652 | 53.8 | 869.6 | 55.4 | 284.6 | 38.7 | |

Quarter Ill (July 1, 2016 - September 30, 2016):

| Flare ID | Total Gas Flow | Emissions (lbs) | | | | |
|----------|----------------|-----------------|-------|------|-------|-------|
| Flate ID | (scf) | PM-10 | NOx | ROG | CO | SOx |
| LAR | 8,030,017 | 71.3 | 985.4 | 98.1 | 515.2 | 134.9 |
| Total | 8,030,017 | 71.3 | 985.4 | 98.1 | 515.2 | 134.9 |

Quarter IV (October 1, 2016 - December 31, 2016):

| Flare ID | Total Gas Flow | Emissions (lbs) | | | | | |
|----------|----------------|-----------------|---------|-------|-------|-------|--|
| Flate ID | (scf) | PM-10 | NOx | ROG | CO | SOx | |
| LAR | 8,777,289 | 83.7 | 1,101.8 | 124.0 | 680.0 | 189.3 | |
| Total | 8,777,289 | 83.7 | 1,101.8 | 124.0 | 680.0 | 189.3 | |