

**FTIR Summary Report**

**TERRA AIR SERVICES**

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Customer: Tosco SFR Monitoring Period Total Hours: 744.00  
 Location: North Fenceline From: 08/01/1997 00:00:01 Online %: 85.0  
 Address: 1380 San Pablo Avenue To: 08/31/1997 23:59:59 Offline %: 15.0  
 Rodeo, CA 94572-1299 Number of Valid Spectra Collected and Analyzed: 7436

| Compound                | Path - Average Conc. (ppm) |       |       | Detections |           |                | Alarms           |   |                 |   | Path - MDL (ppm) |                  |                  |
|-------------------------|----------------------------|-------|-------|------------|-----------|----------------|------------------|---|-----------------|---|------------------|------------------|------------------|
|                         | Avg.*                      | Max*  | Min*  | Number     | Confirmed | False Positive | High Level (ppm) | # | Low Level (ppm) | # | Avg Detect Limit | Max Detect Limit | Min Detect Limit |
| 1,1,1 Trichloroethane   | 0.000                      | 0.000 | 0.000 | 3          | 0         | 3              | 450              | 0 | 350             | 0 | 0.033            | 0.626            | 0.015            |
| 1,3 Butadiene           | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 50               | 0 | 10              | 0 | 0.050            | 1.018            | 0.023            |
| 2,2,4-Trimethylpentane  | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 0                | 0 | 0               | 0 | 2.625            | 41.500           | 1.087            |
| Acetaldehyde            | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 150              | 0 | 25              | 0 | 0.557            | 10.973           | 0.227            |
| Ammonia                 | 0.015                      | 0.053 | 0.009 | 214        | 214       | 0              | 100              | 0 | 3               | 0 | 0.017            | 0.287            | 0.008            |
| Butane                  | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 1000             | 0 | 800             | 0 | 0.363            | 75.787           | 0.144            |
| Carbon monoxide         | 0.207                      | 0.583 | 0.117 | 585        | 585       | 0              | 400              | 0 | 20              | 0 | 0.311            | 17.184           | 0.115            |
| Carbonyl sulfide        | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 10               | 0 | 1               | 0 | 0.010            | 0.288            | 0.002            |
| Chlorodifluoromethane   | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 100              | 0 | 10              | 0 | 0.011            | 0.218            | 0.005            |
| Diethanol amine         | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 6                | 0 | 0.46            | 0 | 0.070            | 1.666            | 0.043            |
| Dimethyl sulfide        | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 500              | 0 | 50              | 0 | 0.398            | 6.054            | 0.199            |
| Ethane                  | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 3000             | 0 | 1000            | 0 | 0.161            | 37.613           | 0.064            |
| Ethyl benzene           | 0.000                      | 0.000 | 0.000 | 2          | 0         | 2              | 125              | 0 | 100             | 0 | 0.313            | 2.289            | 0.196            |
| Ethylene                | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 2700             | 0 | 1000            | 0 | 0.036            | 1.076            | 0.018            |
| Formaldehyde            | 0.000                      | 0.000 | 0.000 | 1          | 0         | 1              | 2                | 0 | 0.3             | 0 | 0.042            | 1.028            | 0.006            |
| Furan                   | 0.000                      | 0.000 | 0.000 | 1          | 0         | 1              | 2300             | 0 | 230             | 0 | 6.170            | 32.053           | 0.134            |
| Hydrogen chloride       | 0.000                      | 0.000 | 0.000 | 11         | 0         | 11             | 20               | 0 | 1               | 0 | 0.061            | 1.842            | 0.005            |
| Hydrogen Cyanide        | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 3                | 0 | 0.3             | 0 | 0.114            | 1.889            | 0.060            |
| Methane                 | 1.225                      | 1.613 | 0.859 | 6740       | 6740      | 0              | 5000             | 0 | 1000            | 0 | 1.708            | 5.093            | 0.859            |
| Methyl mercaptan        | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 10               | 0 | 0.005           | 0 | 1.276            | 246.050          | 0.503            |
| Methyl tert-butyl ether | 0.220                      | 0.964 | 0.041 | 54         | 54        | 0              | 200              | 0 | 40              | 0 | 0.056            | 1.007            | 0.023            |
| n-Hexane                | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 75               | 0 | 50              | 0 | 0.536            | 122.463          | 0.211            |
| n-Octane                | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 375              | 0 | 75              | 0 | 0.294            | 66.821           | 0.116            |
| Naphthalene             | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 15               | 0 | 10              | 0 | 0.681            | 10.877           | 0.284            |

| Compound         | Path - Average Conc. (ppm) |       |       | Detections |           |                | Alarms           |     |                 |     | Path - MDL (ppm) |                  |                  |
|------------------|----------------------------|-------|-------|------------|-----------|----------------|------------------|-----|-----------------|-----|------------------|------------------|------------------|
|                  | Avg.*                      | Max*  | Min*  | Number     | Confirmed | False Positive | High Level (ppm) | #   | Low Level (ppm) | #   | Avg Detect Limit | Max Detect Limit | Min Detect Limit |
| Nickel carbonyl  | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 0.16             | 0   | 0.09            | 0   | 0.008            | 0.230            | 0.002            |
| Nitrous oxide*** | 0.263                      | 0.758 | 0.230 | 7348       | 7347      | 1              | NONE             | N/A | NONE            | N/A | 0.426            | 0.901            | 0.195            |
| Ozone**          | 0.051                      | 0.111 | 0.029 | 458        | 458       | 0              | NONE             | N/A | NONE            | N/A | 0.054            | 0.834            | 0.024            |
| Phenol           | 0.000                      | 0.000 | 0.000 | 26         | 0         | 26             | 50               | 0   | 5               | 0   | 0.094            | 28.289           | 0.003            |
| Phosgene         | 0.000                      | 0.000 | 0.000 | 4          | 0         | 4              | 0.2              | 0   | 0.003           | 0   | 0.008            | 0.147            | 0.004            |
| Propane          | 0.000                      | 0.000 | 0.000 | 0          | 0         | 0              | 2500             | 0   | 1000            | 0   | 0.230            | 47.628           | 0.087            |

\* Zero (0.000) values indicate all concentrations less than the minimum detection limit (<MDL)

\*\* Included as an interfering compound

\*\*\* Included as an ambient quality assurance check compound