

**TERRA** AIR SERVICES  
**FTIR Summary Report**

Customer: Tosco SFR  
 Address: 1380 San Pablo Avenue  
 Rodeo, CA 94572-1299

Monitoring Period  
 From: 05/01/1998 00:00:01  
 To: 05/31/1998 23:59:59

Total Hours: 744.00

**PETRIS**  
 TECHNOLOGY  
 2950 N. Loop W., Ste. 1050  
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**North Fenceline**

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	0	0	0	450	0	350	0	0.031	0.564	0.010
1,3 Butadiene	0.000	0.000	0.000	0	0	0	50	0	10	0	0.047	0.429	0.017
2,2,4-Trimethylpentane	0.000	0.000	0.000	0	0	0	0	0	0	0	2.104	29.217	0.858
Acetaldehyde	0.000	0.000	0.000	0	0	0	150	0	25	0	0.583	10.350	0.272
Ammonia	0.000	0.000	0.000	343	0	343	100	0	3	0	0.016	0.319	0.007
Butane	0.000	0.000	0.000	0	0	0	1000	0	800	0	0.283	3.378	0.071
Carbon monoxide	0.234	0.372	0.172	7222	7222	0	400	0	20	0	0.355	5.152	0.079
Carbonyl sulfide	0.000	0.000	0.000	0	0	0	10	0	1	0	0.008	0.098	0.002
Chlorodifluoromethane	0.000	0.000	0.000	0	0	0	100	0	10	0	0.018	0.327	0.008
Diethanol amine	0.000	0.000	0.000	0	0	0	6	0	0.48	0	0.572	11.154	0.265
Dimethyl sulfide	0.000	0.000	0.000	0	0	0	500	0	50	0	0.385	10.379	0.143
Ethane	0.000	0.000	0.000	0	0	0	3000	0	1000	0	0.126	1.547	0.031
Ethyl benzene	0.000	0.000	0.000	0	0	0	125	0	100	0	0.266	3.376	0.065
Ethylene	0.000	0.000	0.000	0	0	0	2700	0	1000	0	0.035	0.976	0.013
Formaldehyde	0.000	0.000	0.000	5	0	5	2	0	0.3	0	0.033	1.341	0.002
Furan	0.000	0.000	0.000	0	0	0	2300	0	230	0	2.457	11.489	1.057
Hydrogen chloride	0.000	0.000	0.000	29	0	29	20	0	1	0	0.049	1.853	0.004
Hydrogen Cyanide	0.000	0.000	0.000	0	0	0	3	0	0.3	0	0.049	0.568	0.020
Methane	1.381	1.881	1.074	7448	7448	0	5000	0	1000	0	1.217	2.501	0.250
Methyl mercaptan	0.000	0.000	0.000	0	0	0	10	0	0.005	0	1.008	19.063	0.236
Methyl tert-butyl ether	0.000	0.000	0.000	10	0	10	200	0	40	0	0.112	2.270	0.052
n-Hexane	0.000	0.000	0.000	0	0	0	75	0	50	0	0.417	6.369	0.101
n-Octane	0.000	0.000	0.000	0	0	0	375	0	75	0	0.228	3.076	0.055
Naphthalene	0.000	0.000	0.000	0	0	0	15	0	10	0	0.633	16.483	0.183

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	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	0.006	0.090	0.001
Nitrous oxide***	0.169	0.238	0.152	8068	8068	0	NONE	na	NONE	na	0.021	0.463	0.012
Ozone**	0.000	0.000	0.000	1	0	1	NONE	na	NONE	na	0.052	0.988	0.020
Phenol	0.000	0.000	0.000	13	0	13	50	0	5	0	0.087	145.132	0.003
Phosgene	0.000	0.000	0.000	14	0	14	0.2	0	0.003	0	0.007	0.070	0.003
Propane	0.000	0.000	0.000	0	0	0	2500	0	1000	0	0.176	2.192	0.040

Number of Valid Spectra Collected and Analyzed: 8313

Online %:

95.0

Offline %:

5.0

**South Fenceline**

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	0	0	0	450	0	350	0	0.030	0.052	0.013
1,3 Butadiene	0.000	0.000	0.000	0	0	0	50	0	10	0	0.042	0.060	0.021
2,2,4-Trimethylpentane	0.000	0.000	0.000	0	0	0	0	0	0	0	5.140	20.932	1.108
Acetaldehyde	0.000	0.000	0.000	0	0	0	150	0	25	0	0.683	1.488	0.229
Ammonia	0.000	0.000	0.000	538	0	538	100	0	3	0	0.015	0.023	0.008
Butane	0.000	0.000	0.000	0	0	0	1000	0	800	0	0.578	1.687	0.049
Carbon monoxide	0.337	0.447	0.237	2551	2551	0	400	0	20	0	0.274	3.244	0.137
Carbonyl sulfide	0.000	0.000	0.000	0	0	0	10	0	1	0	0.020	0.121	0.002
Chlorodifluoromethane	0.000	0.000	0.000	0	0	0	100	0	10	0	0.021	0.047	0.007
Diethanol amine	0.000	0.000	0.000	0	0	0	6	0	0.46	0	0.676	1.495	0.225
Dimethyl sulfide	0.000	0.000	0.000	0	0	0	500	0	50	0	0.352	0.525	0.165
Ethane	0.000	0.000	0.000	0	0	0	3000	0	1000	0	0.255	0.687	0.021
Ethyl benzene	0.000	0.000	0.000	0	0	0	125	0	100	0	0.510	1.004	0.044
Ethylene	0.000	0.000	0.000	0	0	0	2700	0	1000	0	0.032	0.048	0.015
Formaldehyde	0.000	0.000	0.000	37	0	37	2	0	0.3	0	0.042	0.116	0.001
Furan	0.000	0.000	0.000	0	0	0	2300	0	230	0	3.747	11.634	1.457
Hydrogen chloride	0.000	0.000	0.000	5	0	5	20	0	1	0	0.060	0.173	0.003
Hydrogen Cyanide	0.000	0.000	0.000	0	0	0	3	0	0.3	0	0.073	0.223	0.028
Methane	1.142	1.558	0.739	3708	3708	0	5000	0	1000	0	1.298	2.215	0.277

**South Fenceline**

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	Avg.*	Max*	Min*	Number	Confirmed	False Positive	High Level (ppm)	#	Low Level (ppm)	#	Avg Detect Limit	Max Detect Limit	Min Detect Limit
Methyl mercaptan	0.000	0.000	0.000	0	0	0	10	0	0.005	0	2.102	6.275	0.163
Methyl tert-butyl ether	0.000	0.000	0.000	0	0	0	200	0	40	0	0.133	0.292	0.044
n-Hexane	0.000	0.000	0.000	0	0	0	75	0	50	0	0.858	2.478	0.070
n-Octane	0.000	0.000	0.000	0	0	0	375	0	75	0	0.468	1.330	0.038
Naphthalene	0.000	0.000	0.000	0	0	0	15	0	10	0	0.575	1.106	0.182
Nickel carbonyl	0.000	0.000	0.000	0	0	0	0.16	0	0.09	0	0.016	0.112	0.001
Nitrous oxide***	0.236	0.497	0.167	4864	4864	0	NONE	na	NONE	na	0.025	0.027	0.021
Ozone**	0.045	0.053	0.039	3	3	0	NONE	na	NONE	na	0.049	0.074	0.022
Phenol	0.000	0.000	0.000	49	0	49	50	0	5	0	0.147	61.563	0.005
Phosgene	0.000	0.000	0.000	0	0	0	0.2	0	0.003	0	0.006	0.009	0.003
Propane	0.000	0.000	0.000	0	0	0	2500	0	1000	0	0.341	1.041	0.028

Number of Valid Spectra Collected and Analyzed: 4874

Online %:

56.4

Offline %:

43.6

\* 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