

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

M E M O R A N D U M

DATE: February 19, 2003
TO: Interested Parties
FROM: Barry R. Wallerstein, D.Env., Executive Officer
SUBJECT: Update on Air Sample Analysis – Beverly Hills

On Saturday, February 15, 2003, the South Coast Air Quality Management District (AQMD) took additional outdoor air samples at three locations: 1) at Beverly Hills High School; 2) on the property of Venoco; and 3) at nearby Roxbury Park.

A total of five samples were collected at the three locations. Specifically, the AQMD staff collected two 8-hr samples at the high school (from 8:00 a.m. to 4:00 p.m.), one in the middle bleacher section of the stadium and the second sample in the middle of the upper softball field. In addition, an 8-hr sampling (from 8:00 a.m. to 4:00 p.m.) was also conducted on the Venoco property near the oil well, on the side of the facility adjacent to Olympic Boulevard. Lastly, at Roxbury Park, the AQMD staff collected two samples (one sample was collected from 8:00 a.m. to 1:30 p.m. and the other sample from 12 noon to 4:00 p.m.) on the eastern edge of the lawn bowling facility. The Venoco facility was not operating (i.e., producing oil or gas) on Saturday, and the samples collected generally represent “baseline” conditions.

The attached table summarizes AQMD's laboratory analysis of the air samples collected. The table contains two sets of analysis. The concentrations reported in the top section of the table were analyzed using a gas chromatograph/mass spectrometry (GC/MS) instrument. This type of analysis provides information for specific chemical compounds found in the samples. The bottom set of concentrations were analyzed using a gas chromatograph with flame ionization detection (FID) and total combustion analysis (TCA) methods. These latter two methods provide concentrations based on the number of carbon atoms in the chemical species (e.g., C6 would represent any chemical compound with six carbons such as n-hexane, methylpentane, hexanone, cyclohexane, benzene, etc.) The use of FID and TCA provides an overall picture of the concentration levels in the sample. The GC/MS results represent a subset of the FID and TCA data since GC/MS analysis is specific to certain chemicals of concern.

The results of Saturday's sampling are consistent with the "grab" samples collected earlier this month at Beverly Hills High School by the AQMD. (A grab sample is collected by filling a canister with outdoor air in less than one minute.) The concentrations shown in the attached table indicate somewhat higher levels on Venoco's property for ethane and propane. This is expected since the sampling was conducted closest to the oil well and is typical of sampling close to petroleum sources. All of the other concentration levels are similar to levels seen in other locations in the South Coast Air Basin. **As seen in the attached table, benzene, hexane, and other air toxic levels found in the samples are NOT considered abnormal.**

In a recent news story regarding previous sampling (not conducted by AQMD) at the high school, a toxicologist is quoted as saying that "38 parts per million of hexane would be cause for concern". The AQMD staff evaluated the sample analysis that the comment appeared to be based on, and found that hexane was not specifically reported but rather the chemical compounds were reported by the number of carbons associated with the chemical compounds (i.e., C6, C6+, etc.) relative to hexane. For the C6 category, the information reported showed "ND" (not detected) and for C6+, a value of 38 parts per million was reported. The "C6" category represents all chemical compounds with six carbons, including n-hexane. The "C6+" category represents chemical compounds that have seven carbons or greater such as heptane, octane, nonane, toluene, xylene. **Upon examining the results of the AQMD samples collected on February 15, 2003, the AQMD staff did not see elevated levels of the C6 and above compounds.**

The AQMD staff will conduct another series of sampling when the Venoco facility is scheduled to be operational. The additional sampling results will be provided to the public shortly thereafter.

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Attachment