



**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**21865 Copley Dr., Diamond Bar, CA 91765-4182**

**MONITORING AND ANALYSIS**  
**REPORT OF LABORATORY ANALYSIS**

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**To:** Sumner Wilson  
Monitoring Operations Manager  
Science & Technology Advancement

**Laboratory No.** 2109603-01  
**Requested By** Sumner Wilson  
**Rule No.** NA  
**ST No.** NA  
**Report Created** 04/21/2021

**Sampling Location**

Northwood High School  
4515 Portola Pkwy  
Irvine, CA

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**ANALYTICAL WORK PERFORMED, METHOD OF ANALYSIS, AND RESULTS**

**Volatile Organic Compounds (VOCs) in Ambient Air by EPA TO-15 (GC/MS)**  
**Volatile Organic Compounds (VOCs) in Ambient Air by EPA TO-15 (GC/MS) - Tentatively Identified**

**See attached results and sample information.**

**Reviewed By:** \_\_\_\_\_  
Stephen Dutz  
Principal A.Q. Chemist  
Laboratory Services

**Date Reviewed:** \_\_\_\_\_

**Approved By:** \_\_\_\_\_  
Aaron Katzenstein, Ph.D.  
Senior Manager  
Laboratory Services  
(909) 396-2219

**Date Approved:** \_\_\_\_\_



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**Laboratory No.** 2109603-01

**Sample Description** 24 Hour, SILCO Canister E0714, AA Asphalt Irvine: Northwood High School.

**Sample Date** 04/04/2021

**Received Date** 04/06/2021

**Analyzed Date** 04/07/2021

**Volatile Organic Compounds (VOCs) in Ambient Air by EPA TO-15 (GC/MS)**

| <u>Analyte, Unit</u>            | <u>Result</u> | <u>MDL</u> | <u>MRL</u> | <u>Ambient Avg</u> |
|---------------------------------|---------------|------------|------------|--------------------|
| 1,1,1-Trichloroethane, ppbv     | ND            | 0.009      | 0.03       | 0.1                |
| 1,1,2,2-Tetrachloroethane, ppbv | ND            | 0.02       | 0.07       | <0.1               |
| 1,1,2-Trichloroethane, ppbv     | ND            | 0.03       | 0.09       | <0.1               |
| 1,1-Dichloroethane, ppbv        | ND            | 0.01       | 0.04       | <0.1               |
| 1,1-Dichloroethylene, ppbv      | ND            | 0.03       | 0.09       |                    |
| 1,2,4-Trichlorobenzene, ppbv    | ND (QX)       | 0.08       | 0.2        | <0.1               |
| 1,2,4-Trimethylbenzene, ppbv    | 0.08 (LJ)     | 0.02       | 0.05       | 0.1                |
| 1,2-Dibromoethane, ppbv         | ND            | 0.02       | 0.08       |                    |
| 1,2-Dichlorobenzene, ppbv       | ND (QX)       | 0.04       | 0.1        |                    |
| 1,2-Dichloroethane, ppbv        | J (0.02)      | 0.01       | 0.04       |                    |
| 1,2-Dichloropropane, ppbv       | ND            | 0.01       | 0.03       | <0.1               |
| 1,3,5-Trimethylbenzene, ppbv    | ND            | 0.03       | 0.1        | 0.1                |
| 1,3-Butadiene, ppbv             | ND            | 0.03       | 0.08       | <0.1               |
| 1,3-Dichlorobenzene, ppbv       | ND (QX)       | 0.03       | 0.1        |                    |
| 1,4-Dichlorobenzene, ppbv       | ND (QX)       | 0.04       | 0.1        |                    |
| 1,4-Dioxane, ppbv               | ND (QX)       | 0.04       | 0.1        | <0.1               |
| 2-Butanone (MEK), ppbv          | 0.3           | 0.06       | 0.2        | 0.3                |
| 2-Hexanone (MBK), ppbv          | ND (QX)       | 0.05       | 0.1        |                    |
| 2-Propenal, ppbv                | J (0.1)       | 0.05       | 0.2        |                    |
| Acetone, ppbv                   | 4.2           | 0.3        | 0.9        | 7.7                |
| Benzene, ppbv                   | 0.1           | 0.01       | 0.03       | 0.6                |
| Benzyl chloride, ppbv           | ND (QX)       | 0.03       | 0.08       | <0.1               |
| Bromodichloromethane, ppbv      | ND            | 0.01       | 0.04       | <0.1               |
| Bromoform, ppbv                 | ND            | 0.04       | 0.1        | <0.1               |
| Bromomethane, ppbv              | ND (QX)       | 0.03       | 0.08       | <0.1               |
| Carbon disulfide, ppbv          | ND            | 0.04       | 0.1        | <0.1               |
| Carbon Tetrachloride, ppbv      | 0.09          | 0.009      | 0.03       | 0.1                |
| Chlorobenzene, ppbv             | ND            | 0.02       | 0.05       | <0.1               |
| Chloroethane, ppbv              | ND            | 0.02       | 0.06       | <0.1               |
| Chloroform, ppbv                | 0.05          | 0.008      | 0.02       | <0.1               |
| Chloromethane, ppbv             | 0.7           | 0.03       | 0.08       | 0.6                |
| cis-1,2-Dichloroethylene, ppbv  | ND            | 0.01       | 0.04       |                    |



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**Laboratory No.** 2109603-01 - continued  
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**Sample Date 04/04/2021** **Received Date 04/06/2021** **Analyzed Date 04/07/2021**

**Volatile Organic Compounds (VOCs) in Ambient Air by EPA TO-15 (GC/MS)**

| <u>Analyte, Unit</u>                        | <u>Result</u> | <u>MDL</u> | <u>MRL</u> | <u>Ambient Avg</u> |
|---|---------------|------------|------------|--------------------|
| cis-1,3-Dichloropropene, ppbv               | ND            | 0.03       | 0.1        |                    |
| Cyclohexane, ppbv                           | 0.04 (LJ)     | 0.01       | 0.03       | 0.1                |
| Dibromochloromethane, ppbv                  | ND            | 0.03       | 0.08       | <0.1               |
| Dichlorodifluoromethane (Freon 12), ppbv    | 0.5           | 0.03       | 0.09       | 0.5                |
| Dichlorotetrafluoroethane (Freon 114), ppbv | J (0.02)      | 0.02       | 0.06       | <0.1               |
| Ethanol, ppbv                               | 3.9 (LJ)      | 0.3        | 0.9        | 7.3                |
| Ethyl Acetate, ppbv                         | ND (QX)       | 0.08       | 0.2        | <0.1               |
| Ethylbenzene, ppbv                          | J (0.05)      | 0.02       | 0.07       | 0.2                |
| Ethylene oxide, ppbv                        | 0.06 (LJ)     | 0.02       | 0.06       |                    |
| Hexachloro-1,3-butadiene, ppbv              | ND            | 0.07       | 0.2        |                    |
| Isopropanol, ppbv                           | J (0.4)       | 0.3        | 0.9        |                    |
| m+p-Xylene, ppbv                            | J (0.08)      | 0.04       | 0.1        | 0.6                |
| Methyl Isobutyl Ketone (MIBK), ppbv         | ND            | 0.06       | 0.2        |                    |
| Methyl Methacrylate, ppbv                   | ND            | 0.05       | 0.2        |                    |
| Methyl tert-Butyl Ether (MTBE), ppbv        | ND            | 0.02       | 0.07       |                    |
| Methylene Chloride, ppbv                    | 0.1           | 0.02       | 0.07       | 0.2                |
| n-Heptane, ppbv                             | ND            | 0.04       | 0.1        | 0.2                |
| n-Hexane, ppbv                              | 0.08          | 0.01       | 0.04       | 0.1                |
| o-Xylene, ppbv                              | ND            | 0.08       | 0.2        | 0.2                |
| p-Ethyltoluene, ppbv                        | J (0.02)      | 0.02       | 0.06       |                    |
| Propylene, ppbv                             | 0.1           | 0.04       | 0.1        | 0.5                |
| Styrene, ppbv                               | 0.06          | 0.02       | 0.06       | 0.1                |
| Tetrachloroethylene, ppbv                   | ND            | 0.02       | 0.06       |                    |
| Tetrahydrofuran, ppbv                       | J (0.04)      | 0.03       | 0.1        | <0.1               |
| Toluene, ppbv                               | 0.2           | 0.03       | 0.1        | 1.6                |
| trans-1,2-Dichloroethylene, ppbv            | ND            | 0.02       | 0.05       |                    |
| trans-1,3-Dichloropropene, ppbv             | ND            | 0.03       | 0.08       |                    |
| Trichloroethylene, ppbv                     | ND            | 0.01       | 0.04       | <0.2               |
| Trichlorofluoromethane (Freon 11), ppbv     | 0.3           | 0.02       | 0.06       | 0.2                |
| Trichlorotrifluoroethane (Freon 113), ppbv  | 0.09          | 0.01       | 0.04       | 0.1                |
| Vinyl acetate, ppbv                         | J (0.1)       | 0.08       | 0.2        | <0.1               |
| Vinyl chloride, ppbv                        | ND            | 0.02       | 0.07       | <0.1               |



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**Laboratory No.** 2109603-01 - continued  
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**Laboratory No.** 2109603-01 - continued  
**Sample Description** 24 Hour, SILCO Canister E0714, AA Asphalt Irvine: Northwood High School.  
**Sample Date 04/04/2021** **Received Date 04/06/2021** **Analyzed Date 04/15/2021**

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**Volatile Organic Compounds (VOCs) in Ambient Air by EPA TO-15 (GC/MS) - Tentatively Identified**

**--TENTATIVELY IDENTIFIED COMPOUNDS--**  
**CONCENTRATIONS ARE APPROXIMATED**

**Analyte, Unit**

**Result**

No TICs Found, ppbv

0.0



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**DEFINITIONS**

| <b>Item</b> | <b>Definition</b>  |
|-------------|--|
| MDL         | Method Detection Limit   |
| MRL         | Method Reporting Limit   |
| ND          | Non-detect; Value is below MDL.  |
| J           | Value is between method detection and reporting limits.                |
| QX          | Does not meet QC criteria.   |
| LJ          | Identification of Analyte is Acceptable; Reported Value is an Estimate |

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
SAMPLE ANALYSIS REQUEST**

- DISTRICT INFORMATION
- INVOICE SOURCE
- LAP AUDIT

LABORATORY NO 2109603

TO: SCAQMD LAB:  OTHER:  \_\_\_\_\_  
 SOURCE NAME: AAA Asphalt I.D. No. \_\_\_\_\_  
 Source Address: 4515 Portola Pkwy City: Irvine  
 Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: 92620  
 Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_ Tel: \_\_\_\_\_

Analysis Requested by: Sumner Wilson Date: 04/06/21  
 Approved by: Jason Low Office: \_\_\_\_\_ Budget #: 44716  
 REASON REQUESTED: Court/Hearing Board  Permit Pending  Hazardous/Toxic Spill   
 Suspected Violation Rule(s) \_\_\_\_\_ Other  near source monitoring

Sample Collected by: B Grant Date: 04/06/21 Time: 0945 pst

**REQUESTED ANALYSIS:**

| Location              | Can#  | Start day / time / duration | Start vac | End vac |
|-----------------------|-------|-----------------------------|-----------|---------|
| Northwood High School | E0714 | 04/04/21 / 00:00 / 1438 min | -30" Hg   | -2"Hg   |

| Relinquished by | Received by | Firm/Agency | Date     | Time |
|-----------------|-------------|-------------|----------|------|
| B Grant         | shelt       | SCAQMD Lab  | 04/06/21 | 1445 |
| Shelt           | R. Lopez    | SCAQMD Lab  | 04/06/21 | 1456 |
|                 |             |             |          |      |

**Remarks:**

SN #585 Office 274 box #3

AAA Asphalt Irvine: Northwood High School