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*Automated Report*

## Technical Report for

### Providence Engineering

Valero-CAMS, Baton Rouge, LA

712-001

SGS Job Number: JC62245

Sampling Date: 03/08/18

#### Report to:

Providence Engineering

kevincalhoun@providenceeng.com

ATTN: Kevin Calhoun

Total number of pages in report: 10



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy F. Cole'.

Nancy Cole  
Laboratory Director

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Test results relate only to samples analyzed.

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## Sample Summary

**Providence Engineering**

**Job No: JC62245**

**Valero-CAMS, Baton Rouge, LA**  
**Project No: 712-001**

| Sample Number | Collected |          | Received | Matrix |                   | Client Sample ID |
|---------------|-----------|----------|----------|--------|-------------------|------------------|
|               | Date      | Time By  |          | Code   | Type              |                  |
| JC62245-1     | 03/08/18  | 15:20 KH | 03/14/18 | AIR    | Ambient Air Comp. | CAMS 400         |

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

|                   |   |                 |          |
|-------------------|---|-----------------|----------|
| Client Sample ID: | CAMS 400                                | Date Sampled:   | 03/08/18 |
| Lab Sample ID:    | JC62245-1                               | Date Received:  | 03/14/18 |
| Matrix:           | AIR - Ambient Air Comp. Summa ID: A1167 | Percent Solids: | n/a      |
| Method:           | TO-15                                   |                 |          |
| Project:          | Valero-CAMS, Baton Rouge, LA            |                 |          |

| Run #  | File ID   | DF | Analyzed       | By  | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|-----|-----------|------------|------------------|
| Run #1 | 3W64237.D | 1  | 03/27/18 18:50 | DFT | n/a       | n/a        | V3W2449          |
| Run #2 |           |    |                |     |           |            |                  |

| Run #  | Initial Volume |
|--------|----------------|
| Run #1 | 400 ml         |
| Run #2 |                |

## VOA TO15 List

| CAS No.    | MW    | Compound                   | Result | RL   | MDL   | Units | Q | Result | RL   | MDL   | Units |
|------------|-------|----------------------------|--------|------|-------|-------|---|--------|------|-------|-------|
| 67-64-1    | 58.08 | Acetone                    | 2.3    | 0.20 | 0.062 | ppbv  |   | 5.5    | 0.48 | 0.15  | ug/m3 |
| 106-99-0   | 54.09 | 1,3-Butadiene              | ND     | 0.20 | 0.028 | ppbv  |   | ND     | 0.44 | 0.062 | ug/m3 |
| 71-43-2    | 78.11 | Benzene                    | 0.13   | 0.20 | 0.026 | ppbv  | J | 0.42   | 0.64 | 0.083 | ug/m3 |
| 75-27-4    | 163.8 | Bromodichloromethane       | ND     | 0.20 | 0.029 | ppbv  |   | ND     | 1.3  | 0.19  | ug/m3 |
| 75-25-2    | 252.8 | Bromoform                  | ND     | 0.20 | 0.018 | ppbv  |   | ND     | 2.1  | 0.19  | ug/m3 |
| 74-83-9    | 94.94 | Bromomethane               | ND     | 0.20 | 0.033 | ppbv  |   | ND     | 0.78 | 0.13  | ug/m3 |
| 593-60-2   | 106.9 | Bromoethene                | ND     | 0.20 | 0.016 | ppbv  |   | ND     | 0.87 | 0.070 | ug/m3 |
| 100-44-7   | 126   | Benzyl Chloride            | ND     | 0.20 | 0.021 | ppbv  |   | ND     | 1.0  | 0.11  | ug/m3 |
| 75-15-0    | 76.14 | Carbon disulfide           | ND     | 0.20 | 0.033 | ppbv  |   | ND     | 0.62 | 0.10  | ug/m3 |
| 108-90-7   | 112.6 | Chlorobenzene              | ND     | 0.20 | 0.017 | ppbv  |   | ND     | 0.92 | 0.078 | ug/m3 |
| 75-00-3    | 64.52 | Chloroethane               | ND     | 0.20 | 0.036 | ppbv  |   | ND     | 0.53 | 0.095 | ug/m3 |
| 67-66-3    | 119.4 | Chloroform                 | ND     | 0.20 | 0.031 | ppbv  |   | ND     | 0.98 | 0.15  | ug/m3 |
| 74-87-3    | 50.49 | Chloromethane              | 0.58   | 0.20 | 0.065 | ppbv  |   | 1.2    | 0.41 | 0.13  | ug/m3 |
| 107-05-1   | 76.53 | 3-Chloropropene            | ND     | 0.20 | 0.037 | ppbv  |   | ND     | 0.63 | 0.12  | ug/m3 |
| 95-49-8    | 126.6 | 2-Chlorotoluene            | ND     | 0.20 | 0.036 | ppbv  |   | ND     | 1.0  | 0.19  | ug/m3 |
| 56-23-5    | 153.8 | Carbon tetrachloride       | ND     | 0.20 | 0.020 | ppbv  |   | ND     | 1.3  | 0.13  | ug/m3 |
| 110-82-7   | 84.16 | Cyclohexane                | ND     | 0.20 | 0.035 | ppbv  |   | ND     | 0.69 | 0.12  | ug/m3 |
| 75-34-3    | 98.96 | 1,1-Dichloroethane         | ND     | 0.20 | 0.033 | ppbv  |   | ND     | 0.81 | 0.13  | ug/m3 |
| 75-35-4    | 96.94 | 1,1-Dichloroethylene       | ND     | 0.20 | 0.033 | ppbv  |   | ND     | 0.79 | 0.13  | ug/m3 |
| 106-93-4   | 187.9 | 1,2-Dibromoethane          | ND     | 0.20 | 0.022 | ppbv  |   | ND     | 1.5  | 0.17  | ug/m3 |
| 107-06-2   | 98.96 | 1,2-Dichloroethane         | ND     | 0.20 | 0.026 | ppbv  |   | ND     | 0.81 | 0.11  | ug/m3 |
| 78-87-5    | 113   | 1,2-Dichloropropane        | ND     | 0.20 | 0.033 | ppbv  |   | ND     | 0.92 | 0.15  | ug/m3 |
| 123-91-1   | 88.12 | 1,4-Dioxane                | ND     | 0.20 | 0.047 | ppbv  |   | ND     | 0.72 | 0.17  | ug/m3 |
| 75-71-8    | 120.9 | Dichlorodifluoromethane    | 0.56   | 0.20 | 0.025 | ppbv  |   | 2.8    | 0.99 | 0.12  | ug/m3 |
| 124-48-1   | 208.3 | Dibromochloromethane       | ND     | 0.20 | 0.025 | ppbv  |   | ND     | 1.7  | 0.21  | ug/m3 |
| 156-60-5   | 96.94 | trans-1,2-Dichloroethylene | ND     | 0.20 | 0.026 | ppbv  |   | ND     | 0.79 | 0.10  | ug/m3 |
| 156-59-2   | 96.94 | cis-1,2-Dichloroethylene   | ND     | 0.20 | 0.034 | ppbv  |   | ND     | 0.79 | 0.13  | ug/m3 |
| 10061-01-5 | 111   | cis-1,3-Dichloropropene    | ND     | 0.20 | 0.023 | ppbv  |   | ND     | 0.91 | 0.10  | ug/m3 |
| 541-73-1   | 147   | m-Dichlorobenzene          | ND     | 0.20 | 0.029 | ppbv  |   | ND     | 1.2  | 0.17  | ug/m3 |
| 95-50-1    | 147   | o-Dichlorobenzene          | ND     | 0.20 | 0.028 | ppbv  |   | ND     | 1.2  | 0.17  | ug/m3 |
| 106-46-7   | 147   | p-Dichlorobenzene          | ND     | 0.20 | 0.029 | ppbv  |   | ND     | 1.2  | 0.17  | ug/m3 |
| 10061-02-6 | 111   | trans-1,3-Dichloropropene  | ND     | 0.20 | 0.029 | ppbv  |   | ND     | 0.91 | 0.13  | ug/m3 |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

### Report of Analysis

|  |                        |                                |
|--|------------------------|--------------------------------|
| <b>Client Sample ID:</b> CAMS 400            |                        |                                |
| <b>Lab Sample ID:</b> JC62245-1              |                        | <b>Date Sampled:</b> 03/08/18  |
| <b>Matrix:</b> AIR - Ambient Air Comp.       | <b>Summa ID:</b> A1167 | <b>Date Received:</b> 03/14/18 |
| <b>Method:</b> TO-15                         |                        | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Valero-CAMS, Baton Rouge, LA |                        |                                |

VOA TO15 List

| CAS No.   | MW     | Compound                  | Result | RL    | MDL   | Units | Q | Result | RL   | MDL   | Units |
|-----------|--------|---------------------------|--------|-------|-------|-------|---|--------|------|-------|-------|
| 64-17-5   | 46.07  | Ethanol                   | 1.8    | 0.50  | 0.095 | ppbv  |   | 3.4    | 0.94 | 0.18  | ug/m3 |
| 100-41-4  | 106.2  | Ethylbenzene              | ND     | 0.20  | 0.023 | ppbv  |   | ND     | 0.87 | 0.10  | ug/m3 |
| 141-78-6  | 88     | Ethyl Acetate             | 0.86   | 0.20  | 0.065 | ppbv  |   | 3.1    | 0.72 | 0.23  | ug/m3 |
| 622-96-8  | 120.2  | 4-Ethyltoluene            | ND     | 0.20  | 0.028 | ppbv  |   | ND     | 0.98 | 0.14  | ug/m3 |
| 76-13-1   | 187.4  | Freon 113                 | ND     | 0.20  | 0.024 | ppbv  |   | ND     | 1.5  | 0.18  | ug/m3 |
| 76-14-2   | 170.9  | Freon 114                 | ND     | 0.20  | 0.024 | ppbv  |   | ND     | 1.4  | 0.17  | ug/m3 |
| 142-82-5  | 100.2  | Heptane                   | ND     | 0.20  | 0.046 | ppbv  |   | ND     | 0.82 | 0.19  | ug/m3 |
| 87-68-3   | 260.8  | Hexachlorobutadiene       | ND     | 0.20  | 0.024 | ppbv  |   | ND     | 2.1  | 0.26  | ug/m3 |
| 110-54-3  | 86.17  | Hexane                    | ND     | 0.20  | 0.026 | ppbv  |   | ND     | 0.70 | 0.092 | ug/m3 |
| 591-78-6  | 100    | 2-Hexanone                | ND     | 0.20  | 0.041 | ppbv  |   | ND     | 0.82 | 0.17  | ug/m3 |
| 67-63-0   | 60.1   | Isopropyl Alcohol         | 0.27   | 0.20  | 0.090 | ppbv  |   | 0.66   | 0.49 | 0.22  | ug/m3 |
| 75-09-2   | 84.94  | Methylene chloride        | ND     | 0.20  | 0.033 | ppbv  |   | ND     | 0.69 | 0.11  | ug/m3 |
| 78-93-3   | 72.11  | Methyl ethyl ketone       | 0.31   | 0.20  | 0.043 | ppbv  |   | 0.91   | 0.59 | 0.13  | ug/m3 |
| 108-10-1  | 100.2  | Methyl Isobutyl Ketone    | ND     | 0.20  | 0.057 | ppbv  |   | ND     | 0.82 | 0.23  | ug/m3 |
| 1634-04-4 | 88.15  | Methyl Tert Butyl Ether   | ND     | 0.20  | 0.019 | ppbv  |   | ND     | 0.72 | 0.069 | ug/m3 |
| 80-62-6   | 100.12 | Methylmethacrylate        | ND     | 0.20  | 0.044 | ppbv  |   | ND     | 0.82 | 0.18  | ug/m3 |
| 115-07-1  | 42     | Propylene                 | ND     | 0.50  | 0.059 | ppbv  |   | ND     | 0.86 | 0.10  | ug/m3 |
| 100-42-5  | 104.1  | Styrene                   | ND     | 0.20  | 0.046 | ppbv  |   | ND     | 0.85 | 0.20  | ug/m3 |
| 71-55-6   | 133.4  | 1,1,1-Trichloroethane     | ND     | 0.20  | 0.017 | ppbv  |   | ND     | 1.1  | 0.093 | ug/m3 |
| 79-34-5   | 167.9  | 1,1,2,2-Tetrachloroethane | ND     | 0.20  | 0.036 | ppbv  |   | ND     | 1.4  | 0.25  | ug/m3 |
| 79-00-5   | 133.4  | 1,1,2-Trichloroethane     | ND     | 0.20  | 0.022 | ppbv  |   | ND     | 1.1  | 0.12  | ug/m3 |
| 120-82-1  | 181.5  | 1,2,4-Trichlorobenzene    | ND     | 0.20  | 0.038 | ppbv  |   | ND     | 1.5  | 0.28  | ug/m3 |
| 95-63-6   | 120.2  | 1,2,4-Trimethylbenzene    | ND     | 0.20  | 0.051 | ppbv  |   | ND     | 0.98 | 0.25  | ug/m3 |
| 108-67-8  | 120.2  | 1,3,5-Trimethylbenzene    | ND     | 0.20  | 0.030 | ppbv  |   | ND     | 0.98 | 0.15  | ug/m3 |
| 540-84-1  | 114.2  | 2,2,4-Trimethylpentane    | ND     | 0.20  | 0.026 | ppbv  |   | ND     | 0.93 | 0.12  | ug/m3 |
| 75-65-0   | 74.12  | Tertiary Butyl Alcohol    | ND     | 0.20  | 0.026 | ppbv  |   | ND     | 0.61 | 0.079 | ug/m3 |
| 127-18-4  | 165.8  | Tetrachloroethylene       | ND     | 0.040 | 0.016 | ppbv  |   | ND     | 0.27 | 0.11  | ug/m3 |
| 109-99-9  | 72.11  | Tetrahydrofuran           | ND     | 0.20  | 0.045 | ppbv  |   | ND     | 0.59 | 0.13  | ug/m3 |
| 108-88-3  | 92.14  | Toluene                   | 0.11   | 0.20  | 0.029 | ppbv  | J | 0.41   | 0.75 | 0.11  | ug/m3 |
| 79-01-6   | 131.4  | Trichloroethylene         | ND     | 0.040 | 0.012 | ppbv  |   | ND     | 0.21 | 0.064 | ug/m3 |
| 75-69-4   | 137.4  | Trichlorofluoromethane    | 0.26   | 0.20  | 0.015 | ppbv  |   | 1.5    | 1.1  | 0.084 | ug/m3 |
| 75-01-4   | 62.5   | Vinyl chloride            | ND     | 0.20  | 0.038 | ppbv  |   | ND     | 0.51 | 0.097 | ug/m3 |
| 108-05-4  | 86     | Vinyl Acetate             | ND     | 0.20  | 0.027 | ppbv  |   | ND     | 0.70 | 0.095 | ug/m3 |
|           | 106.2  | m,p-Xylene                | ND     | 0.20  | 0.067 | ppbv  |   | ND     | 0.87 | 0.29  | ug/m3 |
| 95-47-6   | 106.2  | o-Xylene                  | ND     | 0.20  | 0.035 | ppbv  |   | ND     | 0.87 | 0.15  | ug/m3 |
| 1330-20-7 | 106.2  | Xylenes (total)           | ND     | 0.20  | 0.035 | ppbv  |   | ND     | 0.87 | 0.15  | ug/m3 |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 460-00-4 | 4-Bromofluorobenzene | 97%    |        | 65-128% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Misc. Forms

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### Custody Documents and Other Forms

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**Includes the following where applicable:**

- Chain of Custody
- Summa Canister and Flow Controller Log



ACCUTEST

AIR

AIR CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #
4077 3096 4600

Bottle Control #
VP-02118-37
Lab Job #
JC62245

PAGE 1 OF 1

Form containing Client/Reporting Information, Project Information, Weather Parameters, Sampler(s) Name(s), Turnaround Time, Data Deliverable Information, and Relinquished/Received logs.

JC62245: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: JC62245

Client: PROVIDENCE ENG

Project: PROVIDENCE - CAMS

Date / Time Received: 3/14/2018 9:45:00 AM

Delivery Method: \_\_\_\_\_

Airbill #s: \_\_\_\_\_

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

**Cooler Security**

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Cooler Temperature**

Y or N

- |                              |                          |                          |
|------------------------------|--------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | N/A                      |                          |
| 3. Cooler media:             | N/A                      |                          |
| 4. No. Coolers:              | N/A                      |                          |

**Quality Control Preservation**

Y or N

N/A

- |                                 |                                     |                                     |                                     |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Sample Integrity - Documentation**

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Sample Integrity - Condition**

Y or N

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

**Sample Integrity - Instructions**

Y or N N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Test Strip Lot #s:      pH 1-12: 216017      pH 12+: 208717      Other: (Specify) \_\_\_\_\_

Comments

SM089-03  
Rev. Date 12/7/17

JC62245: Chain of Custody

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# Summa Canister and Flow Controller Log

**Job Number:** JC62245  
**Account:** PROVLABR Providence Engineering  
**Project:** Valero-CAMS, Baton Rouge, LA  
**Received:** 03/14/18

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| SUMMA CANISTERS |       |           |          |    |           |            |               |          |    |          |           |            |          |
|-----------------|-------|-----------|----------|----|-----------|------------|---------------|----------|----|----------|-----------|------------|----------|
| Shipping        |       |           |          |    |           |            | Receiving     |          |    |          |           |            |          |
| Summa ID        | Vac L | Date " Hg | Date Out | By | SCC Batch | SCC FileID | Sample Number | Date In  | By | Vac " Hg | Pres psig | Final psig | Dil Fact |
| A1167           | 6     | 29.4      | 03/05/18 | JT | CP9674    | 6W04993.D  | JC62245-1     | 03/22/18 | JT | 6        |           |            | 1        |

**SGS Bottle Order(s):**  
 VP-03118-13

**Prep Date**      **Room Temp(F)**      **Bar Pres "Hg**  
 03/05/18          70                                  29.92