

**Technical Report for**

**Providence Engineering**

Valero-CAMS, Baton Rouge, LA

712-001

Accutest Job Number: JB63352

Sampling Date: 03/23/14

**Report to:**

Providence Engineering

kevincalhoun@providenceeng.com

ATTN: Kevin Calhoun

Total number of pages in report: **11**



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.



**Nancy Cole**  
Laboratory Director

**Client Service contact: Victoria Pushkova 732-329-0200**

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, 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: JB63352**

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

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JB63352-1	03/23/14	13:00 KH	03/31/14	AIR	Ambient Air Grab	CAMS 158

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

Client Sample ID:	CAMS 158	Date Sampled:	03/23/14
Lab Sample ID:	JB63352-1	Date Received:	03/31/14
Matrix:	AIR - Ambient Air Grab Summa ID: A779	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	2W41000.D	1	04/03/14	YMH	n/a	n/a	V2W1707
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	8.1	0.20	0.034	ppbv		19	0.48	0.081	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.020	ppbv		ND	0.44	0.044	ug/m3
71-43-2	78.11	Benzene	0.24	0.20	0.021	ppbv		0.77	0.64	0.067	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.025	ppbv		ND	1.3	0.17	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.022	ppbv		ND	2.1	0.23	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.017	ppbv		ND	0.78	0.066	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.014	ppbv		ND	0.87	0.061	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.025	ppbv		ND	1.0	0.13	ug/m3
75-15-0	76.14	Carbon disulfide	0.15	0.20	0.017	ppbv	J	0.47	0.62	0.053	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.025	ppbv		ND	0.92	0.12	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.020	ppbv		ND	0.53	0.053	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.019	ppbv		ND	0.98	0.093	ug/m3
74-87-3	50.49	Chloromethane	0.91	0.20	0.034	ppbv		1.9	0.41	0.070	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.028	ppbv		ND	0.63	0.088	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.020	ppbv		ND	1.0	0.10	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.099	0.20	0.011	ppbv	J	0.62	1.3	0.069	ug/m3
110-82-7	84.16	Cyclohexane	0.23	0.20	0.058	ppbv		0.79	0.69	0.20	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.016	ppbv		ND	0.81	0.065	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.016	ppbv		ND	0.81	0.065	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.040	ppbv		ND	0.92	0.18	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.060	ppbv		ND	0.72	0.22	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.60	0.20	0.015	ppbv		3.0	0.99	0.074	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.029	ppbv		ND	1.7	0.25	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.015	ppbv		ND	0.79	0.059	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.019	ppbv		ND	0.91	0.086	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.025	ppbv		ND	1.2	0.15	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.029	ppbv		ND	1.2	0.17	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.022	ppbv		ND	1.2	0.13	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.021	ppbv		ND	0.91	0.095	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

Client Sample ID:	CAMS 158	Date Sampled:	03/23/14
Lab Sample ID:	JB63352-1	Date Received:	03/31/14
Matrix:	AIR - Ambient Air Grab Summa ID: A779	Percent Solids:	n/a
Method:	TO-15		
Project:	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	3.3	0.50	0.19	ppbv		6.2	0.94	0.36	ug/m3
100-41-4	106.2	Ethylbenzene	0.10	0.20	0.020	ppbv	J	0.43	0.87	0.087	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.20	0.057	ppbv		ND	0.72	0.21	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.015	ppbv		ND	0.98	0.074	ug/m3
76-13-1	187.4	Freon 113	0.46	0.20	0.021	ppbv		3.5	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.021	ppbv		ND	1.4	0.15	ug/m3
142-82-5	100.2	Heptane	0.20	0.20	0.020	ppbv		0.82	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.063	ppbv		ND	2.1	0.67	ug/m3
110-54-3	86.17	Hexane	1.1	0.20	0.016	ppbv		3.9	0.70	0.056	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.025	ppbv		ND	0.82	0.10	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.66	0.20	0.039	ppbv		1.6	0.49	0.096	ug/m3
75-09-2	84.94	Methylene chloride	1.7	0.20	0.047	ppbv		5.9	0.69	0.16	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.1	0.20	0.058	ppbv		3.2	0.59	0.17	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.029	ppbv		ND	0.82	0.12	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.017	ppbv		ND	0.72	0.061	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.031	ppbv		ND	0.86	0.053	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.020	ppbv		ND	0.85	0.085	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.016	ppbv		ND	1.1	0.087	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv		ND	1.4	0.21	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.031	ppbv		ND	1.1	0.17	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.079	ppbv		ND	1.5	0.59	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.16	0.20	0.017	ppbv	J	0.79	0.98	0.084	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	0.074	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.60	0.20	0.021	ppbv		2.8	0.93	0.098	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.22	0.20	0.044	ppbv		0.67	0.61	0.13	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.040	0.029	ppbv		ND	0.27	0.20	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	0.60	0.20	0.020	ppbv		2.3	0.75	0.075	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.33	0.20	0.014	ppbv		1.9	1.1	0.079	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.017	ppbv		ND	0.51	0.043	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.058	ppbv		ND	0.70	0.20	ug/m3
	106.2	m,p-Xylene	0.40	0.20	0.032	ppbv		1.7	0.87	0.14	ug/m3
95-47-6	106.2	o-Xylene	0.17	0.20	0.019	ppbv	J	0.74	0.87	0.083	ug/m3
1330-20-7	106.2	Xylenes (total)	0.57	0.20	0.019	ppbv		2.5	0.87	0.083	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		65-128%

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

## 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

# CHAIN OF CUSTODY

## Air Sampling Field Data Sheet



2235 US Highway 130, Dayton, NJ 08810  
 V: 732.329.0200 F: 732.329.3499 www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Lab Quote #	Lab Job # <b>JB63352</b>

PAGE 1 OF 1

Client / Reporting Information				Project Information				Weather Parameters				Requested Analysis							
Company Name: <b>Providence Engr</b>				Project Name: <b>Valero Refining</b>				Temperature (Fahrenheit)				TO-15							
Address: <b>1201 Main St</b>				Street				Start: _____ Maximum: _____		Stop: _____ Minimum: _____									
City: <b>Bir</b> State: <b>CA</b> Zip: <b>70802</b>				City: <b>Meraux</b> State: <b>LA</b>				Atmospheric Pressure (Inches of Hg)											
Project Contact: <b>paul.hollis@providenceengr.com</b>				Project #: <b>712-001</b>				Start: _____ Maximum: _____		Stop: _____ Minimum: _____									
Phone #: <b>225 766-7400</b> Fax #: <b>-7400</b>				Client Purchase Order #				Other weather comment:											
Sampler(s) Name(s): <b>Kara Hudson</b>																			
Lab Sample #	Field ID / Point of Collection	Air Type			Sampling Equipment Info					Start Sampling Information					Stop Sampling Information				
		Indoor(I) Soil Vap(SV) Ambient(A)	Canister Serial #	Canister Size GL or LL	Flow Controller Serial #	Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.				
<b>-1</b>	<b>CAMS 158</b>	<b>A</b>	<b>A7796L</b>	<b>-</b>	<b>3-22</b>	<b>1300</b>	<b>0.02</b>	<b>75</b>	<b>KH</b>	<b>3-23</b>	<b>1300</b>	<b>11.19</b>	<b>75</b>	<b>KH</b>					
Sample Custody must be documented below each time samples change possession, including courier delivery.																			
Relinquished by Laboratory:		Date Time:	Received By:	Relinquished By:	Date Time:	Received By:													
1			1	2	3/27/14 12:35	2													
3			3	4	3/31/14 1010	4													
5			5																

JB63352: Chain of Custody

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Job# JB 63352  
(REQUIRED)

## Unused Summa Return Form

Client Providence Eng's Office  
Project Water Retaining

#Summas 0 #Flow Controllers 1

Summa#'s FC187  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Rec'd By BP Rec'd Date/Time 3/31/14 10:10

Rec'd via FedEx 7983 6096 1627  
(Attach any client paperwork, documentation, or airbills if available)

Notes  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Accutest Job Number:** JB63352      **Client:** \_\_\_\_\_      **Project:** \_\_\_\_\_  
**Date / Time Received:** 3/31/2014      **Delivery Method:** \_\_\_\_\_      **Airbill #s:** \_\_\_\_\_

**Cooler Temps (Initial/Adjusted):**

- |                           |  |                       |  |
|---------------------------|--|-----------------------|--|
| <b>Cooler Security</b>    | <u>Y or N</u>  |                       | <u>Y or N</u>  |
| 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"/> |

- |                              |  |
|------------------------------|--|
| <b>Cooler Temperature</b>    | <u>Y or N</u>  |
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 2. Cooler temp verification: | _____  |
| 3. Cooler media:             | _____  |
| 4. No. Coolers:              | 0  |

- |                                     |                                     |                          |                                     |            |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|------------|
| <b>Quality Control Preservation</b> | <u>Y</u>                            | <u>or</u>                | <u>N</u>                            | <u>N/A</u> |
| 1. Trip Blank present / cooler:     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |            |
| 2. Trip Blank listed on COC:        | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |            |
| 3. Samples preserved properly:      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| 4. VOCs headspace free:             | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |            |

- |   |                                     |                          |          |
|---|-------------------------------------|--------------------------|----------|
| <b>Sample Integrity - Documentation</b> | <u>Y</u>                            | <u>or</u>                | <u>N</u> |
| 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"/> |          |

- |                                     |                                     |                          |          |
|-------------------------------------|-------------------------------------|--------------------------|----------|
| <b>Sample Integrity - Condition</b> | <u>Y</u>                            | <u>or</u>                | <u>N</u> |
| 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                              |                          |          |

- |   |                                     |                                     |                          |                                     |
|---|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| <b>Sample Integrity - Instructions</b>    | <u>Y</u>                            | <u>or</u>                           | <u>N</u>                 | <u>N/A</u>                          |
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

3.1  
3

# Summa Canister and Flow Controller Log

**Job Number:** JB63352  
**Account:** PROVLABR Providence Engineering  
**Project:** Valero-CAMS, Baton Rouge, LA  
**Received:** 03/31/14

32  
3

SUMMA CANISTERS													
Shipping							Receiving						
Summa ID	L	Vac " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A779	6	29.4	01/29/14	RC	CP6750	3W38588.D	JB63352-1	03/31/14	FZ	7			1

**Accutest Bottle Order(s):**  
 VP-1/29/2014-3

**Prep Date**      **Room Temp(F)**      **Bar Pres "Hg**  
 01/29/14          70                                  29.92