

### Technical Report for

### Providence Engineering

Valero-CAMS, Baton Rouge, LA

712-001

SGS Accutest Job Number: JC24983

Sampling Date: 07/22/16

#### 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.

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), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, TX, VA, WV, DoD ELAP (L-A-B L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.  
Test results relate only to samples analyzed.

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## Sample Summary

**Providence Engineering**

**Job No: JC24983**

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

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC24983-1	07/22/16	13:00 KH	08/01/16	AIR	Ambient Air Grab	CAMS 300

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

Page 1 of 2

Client Sample ID:	CAMS 300	Date Sampled:	07/22/16
Lab Sample ID:	JC24983-1	Date Received:	08/01/16
Matrix:	AIR - Ambient Air Grab Summa ID: A902	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	5W19641.D	1.48	08/05/16	TCH	n/a	n/a	V5W782
Run #2							

Run #	Initial Volume
Run #1	592 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	8.0	0.20	0.036	ppbv		19	0.48	0.086	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	0.16	0.20	0.031	ppbv	J	0.51	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	0.12	0.20	0.031	ppbv	J	0.37	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	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	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.91	0.20	0.052	ppbv		1.9	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.10	0.20	0.031	ppbv	J	0.63	1.3	0.20	ug/m3
110-82-7	84.16	Cyclohexane	0.13	0.20	0.016	ppbv	J	0.45	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	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	0.042	ppbv		ND	1.5	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.63	0.20	0.019	ppbv		3.1	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	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 300		<b>Date Sampled:</b> 07/22/16
<b>Lab Sample ID:</b> JC24983-1		<b>Date Received:</b> 08/01/16
<b>Matrix:</b> AIR - Ambient Air Grab	<b>Summa ID:</b> A902	<b>Percent Solids:</b> n/a
<b>Method:</b> TO-15		
<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	10.8	0.50	0.075	ppbv		20.3	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	0.14	0.20	0.075	ppbv	J	0.50	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	0.094	0.20	0.021	ppbv	J	0.72	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	0.16	0.20	0.020	ppbv	J	0.66	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
110-54-3	86.17	Hexane	3.4	0.20	0.023	ppbv		12	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.0	0.20	0.16	ppbv		2.5	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	6.9	0.20	0.025	ppbv		24	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.65	0.20	0.048	ppbv		1.9	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	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	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	0.15	0.20	0.015	ppbv	J	0.64	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	0.096	0.20	0.056	ppbv	J	0.71	1.5	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.11	0.20	0.015	ppbv	J	0.54	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.16	0.20	0.023	ppbv	J	0.75	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.21	0.20	0.053	ppbv		0.64	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	0.16	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	0.36	0.20	0.012	ppbv		1.4	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	0.13	0.040	0.019	ppbv		0.70	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.67	0.20	0.022	ppbv		3.8	1.1	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.38	0.20	0.068	ppbv		1.7	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.11	0.20	0.051	ppbv	J	0.48	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.49	0.20	0.051	ppbv		2.1	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%		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

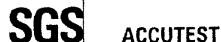
**Misc. Forms****Custody Documents and Other Forms**

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**Includes the following where applicable:**

- Chain of Custody
- Summa Canister and Flow Controller Log

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 # **6780 9735 2035**  
Lab Quote #  
Lab Job # **VF-7/6/2016-5**  
**JC24983**

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Client / Reporting Information		Project Information		Weather Parameters		Requested Analysis
Company Name <b>Providence Engr.</b>		Project Name <b>Valero Refining</b>		Temperature (Fahrenheit)		10-15
Address <b>1201 Main St</b>		Street		Start:	Maximum:	
City <b>BR</b> State <b>CA</b> Zip <b>70802</b>		City <b>Mevaux</b> State <b>LA</b>		Stop:	Minimum:	
Project Contact <b>Paul Hollis</b> Email <b>paul.hollis@providenceeng.com</b>		Project # <b>712-001</b>		Atmospheric Pressure (inches of Hg)		
Phone # <b>252-766-7400</b> Fax # <b>-7440</b>		Client Purchase Order #		Start:	Maximum:	
Sampler(s) Name(s) <b>K Hudson</b>				Stop:	Minimum:	
Other weather comment:						

Lab Sample #	Field ID / Point of Collection	Air Type			Start Sampling Information					Stop Sampling Information					
		Indoor(I) Soil Vap(SV) Ambient(A)	Canister Serial #	Canister Size 6L or 1L	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.
-1	Cams 300	A	A9026L	-	7-21	1300	0.01	75	RH	7-22	1300	1.2	75	RH	✓
[A large diagonal line is drawn across the remaining empty rows of the table.]															

Turnaround Time (Business days) <input checked="" type="checkbox"/> Standard - 15 Days <input type="checkbox"/> 10 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day <input type="checkbox"/> Other	Approved By: <b>ASSESSMENT</b> <i>HAB</i> Label: <b>VERIFICATION</b> <i>BV</i>	Data Deliverable Information All NJDEP TO-15 is mandatory Full T1 <input type="checkbox"/> Comm A <input type="checkbox"/> Comm B <input type="checkbox"/> Reduced T2 <input type="checkbox"/> Full T1 Other:	Comments / Remarks <b>COC Seal # 516</b> <b>Fed Ex</b> Sample inventory is verified upon receipt in the Laboratory <b>Sumner</b>
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Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by: <b>Paul Hollis</b>	Date/Time: <b>7/6/16 12:00</b>	Received By: <b>FedEx</b>	1	Relinquished By: <b>FedEx</b>	2	Date/Time:	Received By: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date/Time: <b>7/11/16 9:00</b>	Received By: <b>BV Asselais</b>	3	Relinquished By:	4	Date/Time:	Received By:
Relinquished by:	Date/Time:	Received By:	5	Custody Seal # <b>516 Intact</b>			

JC24983: Chain of Custody

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## SGS Accutest Sample Receipt Summary

Job Number: JC24983

Client: \_\_\_\_\_

Project: \_\_\_\_\_

Date / Time Received: 8/1/2016 9:00:00 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 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"/> |                                     |
| 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"/> |

Comments

JC24983: Chain of Custody

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# Summa Canister and Flow Controller Log

**Job Number:** JC24983  
**Account:** PROVLABR Providence Engineering  
**Project:** Valero-CAMS, Baton Rouge, LA  
**Received:** 08/01/16

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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
A902	6	29.4	07/06/16	RC	CP8570	W55817A.D	JC24983-1	08/01/16	RD	7.5			1

**SGS Accutest Bottle Order(s):**  
 VP-7/6/2016-5

**Prep Date**      **Room Temp(F)**      **Bar Pres "Hg**  
 07/06/16          70                                  29.92