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## Technical Report for

### Providence Engineering

Valero-CAMS, Baton Rouge, LA

712-001

SGS Job Number: JC58012

Sampling Date: 12/20/17

#### 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: JC58012**

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

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC58012-1	12/20/17	12:45 KH	12/23/17	AIR	Ambient Air Comp.	CAMS 387

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

Client Sample ID:	CAMS 387	Date Sampled:	12/20/17
Lab Sample ID:	JC58012-1	Date Received:	12/23/17
Matrix:	AIR - Ambient Air Comp. Summa ID: M023	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	6W04025.D	1	01/11/18 18:15	DFT	n/a	n/a	V6W120
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	7.6	0.20	0.062	ppbv		18	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	0.16	0.20	0.026	ppbv	J	0.51	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	1.0	0.20	0.065	ppbv		2.1	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	0.070	0.20	0.020	ppbv	J	0.44	1.3	0.13	ug/m3
110-82-7	84.16	Cyclohexane	0.23	0.20	0.035	ppbv		0.79	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	0.49	0.20	0.025	ppbv		2.4	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 387	<b>Date Sampled:</b>	12/20/17
<b>Lab Sample ID:</b>	JC58012-1	<b>Date Received:</b>	12/23/17
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: M023	<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	2.0	0.50	0.095	ppbv		3.8	0.94	0.18	ug/m3
100-41-4	106.2	Ethylbenzene	0.14	0.20	0.023	ppbv	J	0.61	0.87	0.10	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.20	0.065	ppbv		ND	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	0.21	0.20	0.046	ppbv		0.86	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	0.48	0.20	0.026	ppbv		1.7	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	0.47	0.20	0.090	ppbv		1.2	0.49	0.22	ug/m3
75-09-2	84.94	Methylene chloride	0.22	0.20	0.033	ppbv		0.76	0.69	0.11	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.98	0.20	0.043	ppbv		2.9	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	0.21	0.20	0.051	ppbv		1.0	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	0.17	0.20	0.026	ppbv	J	0.79	0.93	0.12	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.19	0.20	0.026	ppbv	J	0.58	0.61	0.079	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.048	0.040	0.016	ppbv		0.33	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	0.62	0.20	0.029	ppbv		2.3	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	0.22	0.20	0.015	ppbv		1.2	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	0.47	0.20	0.067	ppbv		2.0	0.87	0.29	ug/m3
95-47-6	106.2	o-Xylene	0.18	0.20	0.035	ppbv	J	0.78	0.87	0.15	ug/m3
1330-20-7	106.2	Xylenes (total)	0.65	0.20	0.035	ppbv		2.8	0.87	0.15	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	106%		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

Client / Reporting Information				Project Information				Weather Parameters				Requested Analysis				
Company Name: Providence Elyx				Project Name: Valero Refining				Temperature (Fahrenheit)								
Address: 1201 Main St				Street:				Start: Maximum:								
City: BR State: LA Zip: 70802				City: Meroux State: LA				Stop: Minimum:								
Project Contact: paul.hollise@providenceelyx.com				Project #: 712-001				Atmospheric Pressure (inches of Hg)				710-15				
Phone #: (225) 766-7400 Fax #: -7400				Client Purchase Order #				Start: Maximum:								
Sampler(s) Name(s): K Hudson								Stop: Minimum:								
								Other weather comment:								
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 6L or 1L	Flow Controller Serial #	Date	Time (24hr clock)	Canister Pressure (H <sub>g</sub> )	Interior Temp (F)	Sampler Init.	Date	Time (24hr clock)	Canister Pressure (H <sub>g</sub> )	Interior Temp (F)	Sampler Init.
1	Canis 387	A	M023	6L	537	12-19	1130	30	75	KH	12-20	12:45	2	75	KH	✓
INITIAL ASSESSMENT <u>4/1/17</u> LABEL VERIFICATION _____																
Turnaround Time (Business days)				Approved By: _____				Data Deliverable Information				Comments / Remarks				
Standard - 15 Days 10 Day 5 Day 3 Day 2 Day 1 Day Other				Date: _____				All NJDEP TO-15 is mandatory Full T1 Comm A Comm B Reduced T2 Full T1 Other: DKQP reporting				COC seal FEDCOX ship 12/21 Sample inventory is verified upon receipt in the Laboratory				
Sample Custody must be documented below each time samples change possession, including courier delivery.																
Relinquished to Laboratory	Date Time	Received By	Relinquished to	Date Time	Received By	Relinquished to	Date Time	Received By	Relinquished to	Date Time	Received By	Relinquished to	Date Time	Received By	Relinquished to	Date Time
1	11/20/17 12:00	FedEx	2	12/21/17 11:15	FX	3	12/20/17 10:15	1 Box	4			5				

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## SGS Accutest Sample Receipt Summary

Job Number: JC58012

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

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

Date / Time Received: 12/23/2017 10:15:00 AM

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

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

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>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"/>

<u>Cooler Temperature</u>	<u>Y</u>	<u>or</u>	<u>N</u>
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		

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
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"/>

<u>Sample Integrity - Documentation</u>	<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"/>

<u>Sample Integrity - Condition</u>	<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		

<u>Sample Integrity - Instructions</u>	<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"/>	
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

JC58012: Chain of Custody

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# Summa Canister and Flow Controller Log

**Job Number:** JC58012  
**Account:** PROVLABR Providence Engineering  
**Project:** Valero-CAMS, Baton Rouge, LA  
**Received:** 12/23/17

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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
M023	6	29.4	11/20/17	PC	CP9475	5W27883.D	JC58012-1	12/23/17	HD	.5			1

**SGS Bottle Order(s):**  
 VP-112017-205

<b>Prep Date</b>	<b>Room Temp(F)</b>	<b>Bar Pres "Hg</b>
11/20/17	70	29.92