



Odor Evaluation Report

Report Number: 2100802

Project Name: Odor Sampling

Samples Collected: 1/7/21

Samples Received: 1/8/21

Samples Evaluated: 1/8/21

Report Prepared For: Yorke Engineering, LLC
5225 Canyon Crest Drive, Suite 260
Riverside, CA 92507

Report Prepared By: St. Croix Sensory, Inc.
1150 Stillwater Boulevard North
Stillwater, MN 55082 U.S.A
1-800-879-9231
stcroix@fivesenses.com

Data Release Authorization:

Michelle Harty
Laboratory Manager

Reviewed and Approved:

Charles M. McGinley, P.E.
Technical Director

St. Croix Sensory is ISO/IEC 17025:2017 Accredited

Perry Johnson Laboratory Accreditation, Inc.
Certificate No.: L20-534

Accreditation No.: 81047
Initial Accreditation Date: 19 May 2014

Odor Evaluation Report



Client: Yorke Engineering, LLC

Report Number: 2100802

Project Name: Odor Sampling

Samples Evaluated: 1/8/21

#	Field No.	Sample Description	DT	RT	I	HT	DR	Comments
1	1	Rattlesnake	110	70	1.8	+0.1	-1.22	Sample Field Number was not provided.

Odor Detection Threshold Testing (Evaluations) conducted in compliance with and under all conditions specified or required by ASTM E679 and EN13725 unless noted in report "Comments" column. The Client Chain of Custody (COC) attached to the Odor Evaluation Report provides information that may include sampling location(s), methods, and/or environmental conditions during sampling. Client, designated agents, and/or reviewers provide interpretation of results based on sampling conditions.

DT - Detection Threshold as determined by ASTM E679 and EN13725. The Practical Detection Limit (PDL) of DT is 12, based on the nominal lowest dilution presentation ratio of 8. Result is dimensionless dilution ratio at which half the assessors detect the diluted air as different from the blank air. Odor Units (OU) or Odor Units per cubic meters (OU/m³) are commonly used as pseudo-units.

RT - Recognition Threshold as determined by ASTM E679 and EN13725. Result is dimensionless dilution ratio at which half the assessors recognize a character in the diluted odorous air. Odor Units (OU) or Odor Units per cubic meter (OU/m³) are commonly used pseudo-units.

I - Perceived odor intensity as determined by ASTM E544. Intensity is expressed as average reported scale value on 10pt n-butanol in water static scale.

HT - Hedonic Tone value. Average rating of assessors' opinion of odor pleasantness on scale of -10 (most unpleasant) to +10 (most pleasant).

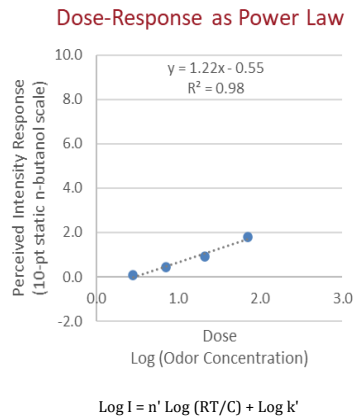
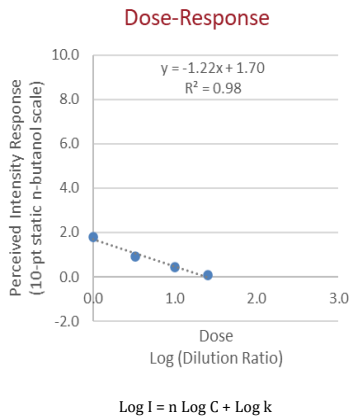
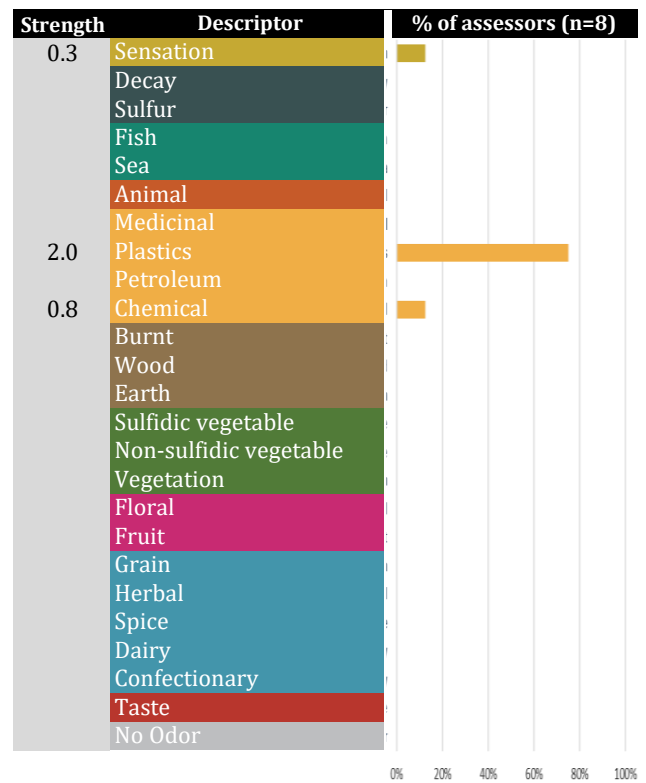
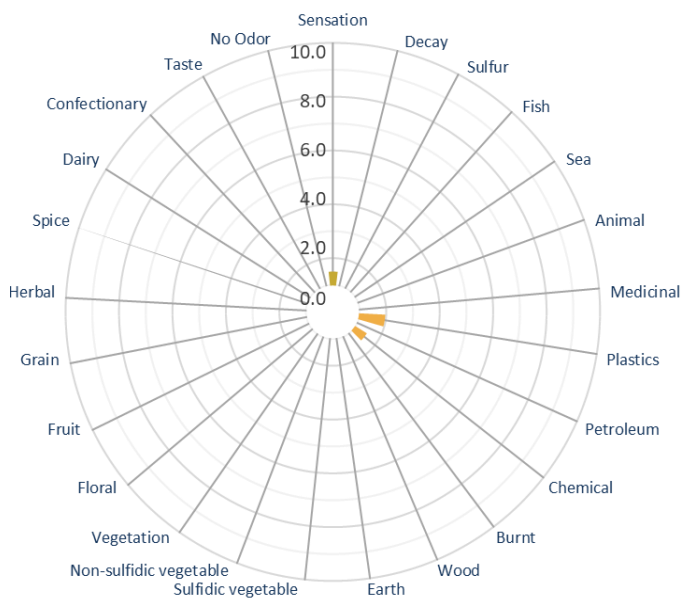
DR - the slope of the dose-response relationship of odor intensity with dilution (persistence of odor).

Field No: 1
Description: Rattlesnake

DT: 110
RT: 70
I: 1.8
HT: +0.1
DR: -1.22

Comments:
 Sample Field Number was not provided.

Odor Descriptors



DT - Detection Threshold as determined by ASTM E679 and EN13725.
RT - Recognition Threshold as determined by ASTM E679 and EN13725.
I - Perceived odor intensity as determined by ASTM E544.
HT - Hedonic Tone value (pleasantness rating).
DR - The slope of the dose-response (dilution-intensity) relationship.
C - Dilution ratio of the odor sample presentation.
n, k, n', and k' - computed constants for the specific odor sample.

Attachments

St. Croix Sensory, Inc.

CHAIN OF CUSTODY RECORD FOR ODOR SAMPLES



Client: <i>Yonke Engineering</i>		Sampled By: <i>Bipul Saraf</i>		Odor Evaluations Requested: (X)				Page <u>1</u> of <u>1</u>	
Project Name: <i>Odor Sampling</i>		Sampling Date: <i>1/8/21</i>						For Laboratory use Only	
Comments: <i>Rattle noise</i>								Odor Evaluation Report No. <i>2100802</i>	
Line No.	Field No.	Sample Description	Sample Time	Field H ₂ S (ppm)	Odor Concentration* <small>(Detection & Recognition Threshold)</small>	Odor Intensity* <small>(PPM 1-Butano)</small>	Odor Characterization <small>(Hedonic Tone & Descriptors)</small>	Odor Persistence <small>("Dose-Response")</small>	
1		<i>Rattle noise</i>	<i>1505</i>	<i>—</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2									
3									
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12									

Transmittal		Relinquished By	Date	Time	Accepted By	Date	Time	Comments & Exceptions Noted
Number of Shipping Boxes <u>1</u>		<i>[Signature]</i>	<i>1/8/21</i>	<i>15:58</i>	<i>[Signature]</i>	<i>1/8/21</i>	<i>10:00 AM</i>	
		<small>Received at St. Croix Sensory Laboratory</small>						

*Odor Concentration: ASTM E679-04 & EN13725:2003 and Odor Intensity: ASTM E544-10
 St. Croix Sensory, Inc. • 1150 Stillwater Blvd. N. • Stillwater, MN 55082 U.S.A. • Tel: 800-879-9251 • Fax: 651-439-1065 • Email: reports@fivesenses.com • Web: www.fivesenses.com
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