

January 12, 2026

Mr. Michael Smith, P.E.
Land Quality Bureau
Iowa Department of Natural Resources
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321



**RE: Notification Letter - Alternate Source of Carbon Disulfide
Marshall County Sanitary Landfill 64-SDP-02-75P**

Dear Mr. Smith:

The laboratory Analytical Reports for the water testing at MW-49 and MW-81 reported the detection of carbon disulfide in samples collected October 6, 2025. The wells are in the monitoring system for the facility.

The reported carbon disulfide detections were noted to be anomalous compared to historic water quality at the site, as carbon disulfide had never been verified at any well at the facility. Identification of an alternate source of carbon disulfide was warranted.

The source of carbon disulfide has been documented to be two (2) new brands of latex gloves utilized during field sampling in the fall of 2025. The information in Attachment A supports the identification of the alternate source. Use of the latex gloves (by make and manufacturer) in the field by HLW personnel ceased immediately upon discovery.

The reported carbon disulfide concentrations reported October 6, 2025, are dismissed and are not considered to be part of the site's water quality record.

Please feel free to contact our office at (515) 733-4144 with any questions you may have.

Sincerely,
HLW Engineering Group

A handwritten signature in blue ink, appearing to read "Todd Whipple", is written over the company name.

Todd Whipple, CPG
Project Manager

cc: Mr. Don Ballalatak, Director

Attachment A

Carbon Disulfide Alternate Source Determination (Latex Gloves)



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11L0435

HLW Engineering

Project Name: Environmental Testing

Todd Whipple
204 West Broad St
Story City, IA 50248

Project / PO Number: N/A
Received: 12/03/2025
Reported: 12/05/2025

Analytical Testing Parameters

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (Distilled Water, Aqueous, 11L0435-01, etc.)

Table with 8 columns: Determination of Volatile Organic Compounds, Result, RL, Units, Note, Prepared, Analyzed, Analyst. Includes EPA 5030B/EPA 8260D data for Carbon Disulfide and various surrogates.

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (Vinyl Gloves, Aqueous, 11L0435-02, etc.)

Table with 8 columns: Determination of Volatile Organic Compounds, Result, RL, Units, Note, Prepared, Analyzed, Analyst. Includes EPA 5030B/EPA 8260D data for Carbon Disulfide and various surrogates.

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (Latex 1 Gloves, Aqueous, 11L0435-03, etc.)

Table with 8 columns: Determination of Volatile Organic Compounds, Result, RL, Units, Note, Prepared, Analyzed, Analyst. Includes EPA 5030B/EPA 8260D data for Carbon Disulfide and various surrogates.



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11L0435

Client Sample ID:	Latex 2 Gloves	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	12/03/2025 9:15
Lab Sample ID:	11L0435-04		

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Carbon Disulfide	154	1.0	ug/L		12/04/25 0000	12/04/25 1741	RAF
Surrogate: Dibromofluoromethane	102	Limit: 57-128	% Rec		12/04/25 0000	12/04/25 1741	RAF
Surrogate: 1,2-Dichloroethane-d4	83.2	Limit: 49-135	% Rec		12/04/25 0000	12/04/25 1741	RAF
Surrogate: Toluene-d8	102	Limit: 82-116	% Rec		12/04/25 0000	12/04/25 1741	RAF
Surrogate: 4-Bromofluorobenzene	97.5	Limit: 77-114	% Rec		12/04/25 0000	12/04/25 1741	RAF

Definitions

RL: Reporting Limit

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <<https://www.microbac.com/standard-terms-conditions>>.

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
12/05/25 16:40

Keystone

LABORATORIES, INC.

600 E. 17th St. S.
 Newton, IA 50208
 Phone: 641-792-8451
 Fax: 641-792-7989

1 I L O 4 3 5

HLW Engineering
 PM: Heather Murphy

205 E VanBuren St
 Centerville, IA 52544
 Phone: 641-437-7023
 Fax: 641-437-7040

PAGE 1 OF 1

PRINT OR TYPE INFORMATION BELOW

SAMPLER: T. WHIPPLE
 SITE NAME: _____
 ADDRESS: _____
 CITY/ST/ZIP: _____
 PHONE: _____

REPORT TO:
 NAME: T. WHIPPLE / Jim Eggers
 COMPANY NAME: HLW / Microbac
 ADDRESS: _____
 CITY/ST/ZIP: Story City / Newton
 PHONE: _____
 FAX: _____

BILL TO:
 NAME: _____
 COMPANY NAME: _____
 ADDRESS: _____
 CITY/ST/ZIP: _____
 PHONE: _____
 Keystone Quote No: _____
 (If Applicable)

HLW - Todd Whipple
204 west Broad Street
Story City, IA 50248

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED	LAB USE ONLY	
								LABORATORY WORK ORDER NO.	LABORATORY SAMPLE NUMBER
<u>DISTILLED WATER</u>	<u>12/3/25</u>	<u>9:12</u>	<u>Source Study Carbon Disulfide</u>	<u>3</u>	<u>W G</u>	<u>G</u>	<u>Carbon Disulfide</u>	<u>1TL0435</u>	<u>01</u>
<u>Vinyl Gloves *</u>	<u>12/3/25</u>	<u>9:13</u>		<u>3</u>	<u>W G</u>	<u>G</u>			<u>02</u>
<u>Latex 1 Gloves *</u>	<u>12/3/25</u>	<u>9:14</u>		<u>3</u>	<u>W G</u>	<u>G</u>			<u>03</u>
<u>Latex 2 Gloves *</u>	<u>12/3/25</u>	<u>9:15</u>		<u>3</u>	<u>W G</u>	<u>G</u>			<u>04</u>

SAMPLE TEMPERATURE UPON RECEIPT: 4.6 °C

Relinquished by: (Signature) [Signature] Date 12/3/25 Time _____

Relinquished by: (Signature) [Signature] Date _____ Time _____

Received by: (Signature) _____ Date _____ Time _____

Received for Lab by: (Signature) [Signature] Date 12-3-25 Time 9:40

Turn-Around: Standard Rush

Contact Lab Prior to Submission _____

Remarks: Placed 4 gloves in 1000 ml plastic non-preserved container. Add distilled water to container neck. Let stand 3 minutes. Poured

Shamrock®

Latex Examination Gloves

Gloves are available in the following:

SIZE	ITEM#
X-Small	10110
Small	10111
Medium	10112
Large	10113
X-Large	10114



www.smcgloves.com



Manufactured For:



Chino, CA 91710

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Gloves are produced from materials which comply with FDA 21CFR 177 - 199 for food contact

LATEX 1 Gloves

CAUTION:

This product contains natural rubber latex which may cause allergic reactions. Other components used in the gloves may cause allergic reactions in some people. If redness or irritation occurs, stop using these gloves. If you have skin allergies or suspect you may be sensitized to natural rubber latex, do not use these gloves. Consult with a dermatologist or physician. Exclude from latex Free areas.

Storage: Store in a dry, ventilated area. Avoid direct sunlight, fluorescent lighting, heat and moisture. Do not store above 100°F(37°C).

The Right Glove for the Right Person at the Right Price®

For Other Shamrock Gloves, Please Visit Our Website.



Lot # : 21-12-121-58-8

Batch # : 21108392HJL

6 4193210113 9

Made in Indonesia

Powder Free Latex Examination Gloves LATEX 2 Gloves PHANTOM[®]

by **ADENNA**

Warning: Isolated cases of allergic reactions to rubber latex or powder have been reported. If you experience a reaction to this product, discontinue use immediately and consult your physician. Reactions may include such phenomena as watery eyes, wheezing, hives, rashes, welts, redness, dryness, tingling, or other skin irritations; hay fever-like symptoms such as sneezing, running nose, itching throat or nose; or tightness of the chest.

Storage: Avoid excessive heat. Open box should be shielded from exposure to direct sunlight or fluorescent lighting.

Advertencia: Han sido reportados casos aislados de reacciones alérgicas al caucho o al polvo. Si usted experimenta una reacción a este producto, discontinúe su uso inmediatamente y consulte a un doctor. Las reacciones quizá incluyan ojos irritados, rascos, rociolos, enrojecimiento de la piel, resaca y otras irritaciones de la piel; otros síntomas como estornudos, flujo nasal, picazón en la garganta y la nariz o presión en el pecho.

Almacenamiento: Evite el calor excesivo. Una vez abierto el envase, éste no debe exponer a los rayos directos del sol ni a la iluminación fluorescente.

Avertissement : Des cas isolés de réactions allergiques au latex d'élastomère-caoutchouc ou à la poudre ont été rapportés. Si vous réagissez à ce produit, arrêtez de l'utiliser et consultez immédiatement votre médecin. Parmi les réactions possibles, citons le larmoiement, la respiration sifflante, l'urticaire, les éruptions ou traces cutanées, les rougeurs, la sécheresse, les fourmillements, ou autres irritations. On rapporte aussi des symptômes semblables à ceux du rhume des foins : éternuements, nez qui coule, irritation du nez ou de la gorge ou encore une oppression respiratoire.

Stockage : Évitez la chaleur excessive. Les boîtes ouvertes doivent être protégées de l'exposition directe au soleil et de l'éclairage fluorescent.

- X-Small PHM910
- Small PHM912
- Medium PHM915
- Large PHM916
- X-Large PHM918

Manufactured for / Fabricados por / Fabriqués pour



Adenna LLC | Ontario, CA 91761, USA
www.adenna.com

LOT NO: 0280530625

MFG:

JUN-2025



Made in Malaysia / Hecho en Malasia / Fabriqué en Malaisie