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By PSTB at 4:40 pm, Feb 29, 2024

February 29, 2024

Mr. Corey Dimond
Petroleum Storage Tank Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Re: Annual groundwater monitoring event, 2023-2024 groundwater monitoring program, Halsell's Grocery site, Facility #6053, Release #287, WPID #4355, Deliverable #4355-1

Dear Corey:

John Shomaker & Associates, Inc. (JSAI) has enclosed a copy of the report for the annual groundwater monitoring event performed on January 3, 2024 at the Halsell's Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico. This annual monitoring event was performed in accordance with a workplan approved by NMED/PSTB on December 8, 2023, for one annual groundwater monitoring event with a deliverable date of January 30, 2024. On January 25, a time extension request for this deliverable was approved by NMED/PSTB, granting an updated deliverable due date of February 29, 2024. The report was prepared using NMED/PSTB form 1216, and represents Deliverable #4355-1.

Please contact me if you have any questions or comments.

Sincerely,

JOHN SHOMAKER & ASSOCIATES, INC.

A handwritten signature in dark ink that reads "Annie McCoy". The signature is written in a cursive, flowing style.

Annie M. McCoy, CPG
Senior Hydrogeologist

AMM:akm

Enc: one bound copy of report

cc + enc: PSTB.inbox@env.nm.gov

**ANNUAL GROUNDWATER
MONITORING EVENT FOR THE 2023-2024
GROUNDWATER MONITORING PROGRAM
HALSELL'S GROCERY SITE, FACILITY #6053
112 SCHOOL STREET, HATCH, NEW MEXICO
FEBRUARY 2024**

by

Annie M. McCoy, CPG

Alex Mandybur, GIT

JOHN SHOMAKER & ASSOCIATES, INC.

Water-Resource and Environmental Consultants

2611 Broadbent Parkway NE

Albuquerque, New Mexico 87107

505-345-3407

www.shomaker.com

prepared for

New Mexico Environment Department

Petroleum Storage Tank Bureau

Santa Fe, New Mexico

February 29, 2024



**ANNUAL GROUNDWATER
MONITORING EVENT FOR THE 2023-2024
GROUNDWATER MONITORING PROGRAM,
HALSELL'S GROCERY SITE, FACILITY #6053,
112 SCHOOL STREET, HATCH, NEW MEXICO,
FEBRUARY 2024**

1. Site name

Halsell's Grocery site, 112 School Street, Hatch, New Mexico.

2. Responsible party

The responsible party for this site is the NMED/PSTB.

3. Responsible party mailing address (list contact person if different)

The mailing address is 2905 Rodeo Park Drive East, Building 1, Santa Fe, NM 87505.

4. Facility number, Release ID, WPID, Deliverable ID

Facility #6053, Release ID #287, WPID #4355, Deliverable ID #4355-1

5. Address/legal description

The site address is 112 School Street, Hatch, New Mexico.

6. Author/consulting company

The authors of this report are Annie M. McCoy and Alex Mandybur with JSAI.

7. Date of report

February 29, 2024.

8. Date of confirmation of release or date USTB was notified of the release

Hydrocarbon contamination was discovered in the area of the site in November 1990. In March 1991, the New Mexico State Highway Department found USTs during a road improvement project. Petroleum hydrocarbon contamination was confirmed by USTB in an inspection report dated September 10, 1991.

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- Figure 5. Site map showing total naphthalene concentrations in monitoring wells, January 3, 2024, Halsell’s Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.

- Figure 6. Site map showing dissolved iron and manganese concentrations in monitoring wells, January 3, 2024, Halsell’s Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.

- Figure 7. Aerial photograph showing water-level elevation contours and groundwater flow direction, January 3, 2024, Halsell’s Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.

APPENDICES
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Appendix A. Copy of laboratory analytical results

Appendix B. Copy of field notes

Appendix C. Summary of measured parameters for the period of record

Appendix D. Graphs of concentrations of selected VOCs, dissolved iron, and manganese over time

JSAI

STATEMENT OF FAMILIARITY

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete to the best of my knowledge.

Signature: 

Name: Annie M. McCoy, CPG

Affiliation: John Shomaker & Associates, Inc. (JSAI)

Title: Senior Hydrogeologist

Date: February 29, 2024

DISCLAIMER

This report summarizes the groundwater monitoring event performed in January 2024 and has been prepared for the exclusive use of the New Mexico Environment Department, Petroleum Storage Tank Bureau (NMED/PSTB). Any other use of this report may be inappropriate. This report may not be copied or reproduced in whole or in part without exclusive written permission from John Shomaker & Associates, Inc. All work has been performed in accordance with generally accepted environmental site assessment practices. No warranty is expressed or implied.

The assessment results are based on investigator's observations at the time of the site visit, on reviews of publicly available information, and on information provided by persons familiar with the property and surroundings. Unless contradicted by conflicting data obtained independently during the conduct of work, all information collected has been accepted at face value. The information and conclusions in this report are subject to the accuracy, completeness, and availability of such data.

**ANNUAL GROUNDWATER
MONITORING EVENT FOR THE 2023-2024
GROUNDWATER MONITORING PROGRAM,
HALSELL'S GROCERY SITE, FACILITY #6053,
112 SCHOOL STREET, HATCH, NEW MEXICO,
FEBRUARY 2024**

I. INTRODUCTION

A. Scope of work

John Shomaker & Associates, Inc. (JSAI) performed the annual groundwater monitoring event of the 2023-2024 program on January 3, 2024 at the Halsell's Grocery site, 112 School Street, Hatch, New Mexico (Fig. 1). A site map showing the approximate locations of groundwater monitoring wells, the former underground storage tank (UST) and fuel dispenser island area, and existing structures is included as Figure 2.

The workplan for one annual groundwater monitoring event in the 2023-2024 monitoring program was approved on December 8, 2023 by the New Mexico Environment Department, Petroleum Storage Tank Bureau (NMED/PSTB). In accordance with the workplan, groundwater samples were collected from monitoring wells MW-1, MW-2, and MW-3, and submitted for laboratory analysis of for volatile organic compounds (VOCs) using EPA method 8260B, ethylene dibromide (EDB) using EPA method 504.1, and dissolved iron (Fe) and manganese (Mn) using EPA method 6010B. Prior to the January 3, 2024 monitoring event, the most recent sampling event for which records were provided to JSAI by the NMED was performed on December 6, 2021 by Souder, Miller & Associates (SMA, 2022a).

B. This period's highlights

- None of the VOCs analyzed using EPA method 8260B were detected in MW-2 or MW-3 during the January 2024 monitoring event.
- Dibromoethane (EDB) was not detected using EPA method 8011/504.1 in MW-1, MW-2, or MW-3 during the January 2024 monitoring event.
- A number of VOC constituents were detected using EPA method 8260B in MW-1 during the January 2024 monitoring event. Of these 13 constituents (summarized in Table 2), the only constituent to exceed a NMWQCC standard was total naphthalene (naphthalene plus 1-methylnaphthalene and 2-methylnaphthalene).
- Dissolved iron was detected below the NMWQCC standard of 1.0 mg/L in MW-1 and MW-2, and was below the laboratory detection limit of 0.020 mg/L in MW-3.
- Dissolved manganese was detected above the NMWQCC standard of 0.2 mg/L in MW-1, MW-2, and MW-3, at 0.38, 0.61, and 0.36 mg/L, respectively.
- The groundwater gradient was approximately 0.003 ft/ft to the southeast during the January 2024 groundwater monitoring event.

II. ACTIVITIES PERFORMED DURING THIS PERIOD**A. Brief description of remediation system and date installed**

According to Souder, Miller & Associates (SMA, 2022c), remediation activities were performed between April 25-28, 2022 in the form of injection of a 12-percent COGAC brand remediation solution containing chemically oxygenated granular activated carbon into 28 boreholes, which were distributed throughout the southwest corner of the site in the location of the former USTs and dispenser. After injection, the boreholes were backfilled with sand throughout the water column, then topped with bentonite in the vadose zone and patched with asphalt at land surface.

B. Description of activities performed to keep system operating properly including inspections, maintenance procedures, and modifications, if any

Historical reports do not indicate any remediation system requiring active operation.

C. Monitoring activities performed

Groundwater samples were collected on January 3, 2024 from site monitoring wells MW-1, MW-2, and MW-3 (Fig. 2). Samples were collected for laboratory analyses of VOCs using EPA method 8260B, EDB using EPA method 504.1, and dissolved Fe and Mn using EPA method 6010B. Water samples were collected after purging at least three well volumes from each monitoring well. Monitoring wells were sampled using dedicated, disposable bailers suspended from disposable polyethylene rope. As the monitoring wells were purged, field measurements of temperature, pH, specific conductance, and dissolved oxygen were collected using calibrated pH, conductivity, and dissolved oxygen meters.

Samples were placed on ice in a cooler immediately after collection, and were submitted to Hall Environmental Analysis Laboratory (Hall) of Albuquerque, New Mexico, within 24 hours of sampling, and within the holding time for analytes and the analytical method.

Water levels were measured in all monitoring wells on January 3, 2024 prior to purging. Depth to water was measured in all wells from the top of casing to the nearest 0.01 ft using a Geotech interface probe. Phase-separated hydrocarbon was not detected in any of the monitoring wells.

D. System performance and effectiveness--include discussion on estimated amount of hydrocarbon removed in preceding semi-annual period and amount removed to date and provide confidence of the determination

Analytical laboratory results from December 2021, prior to the remediation injection in April 2022, did not indicate any VOC contaminants over NMWQCC standards. In January 2024, total naphthalene was detected above the NMWQCC standard at MW-1. Historical VOC data for monitoring wells MW-1 and MW-2 show large fluctuations in concentrations (particularly benzene in MW-1 and MW-2, and total naphthalene in MW-1), such that effects of the 2022 remediation injection may be difficult to evaluate at this time.

E. Statement verifying containment of release

Concentrations of VOCs, such as BTEX and total naphthalene, have historically been highest in groundwater samples collected from MW-1. During the first monitoring event for which groundwater laboratory data are available from June 1992, benzene was reported at 863 micrograms per liter ($\mu\text{g/L}$), toluene was reported at 4,423 $\mu\text{g/L}$, and ethylbenzene was reported at 1,165 $\mu\text{g/L}$ at MW-1. During the following monitoring event in February 1998, all three constituents were reported significantly lower in MW-1 compared to the 1992 event, at 84 $\mu\text{g/L}$, 15 $\mu\text{g/L}$, and 290 $\mu\text{g/L}$ for benzene, toluene, and ethylbenzene, respectively. Monitoring events between 1998 and 2024 have reported fluctuating concentrations of these three constituents at MW-1; however, concentrations appear to have decreased overall at MW-1.

Total naphthalene was reported above the NMWQCC standard in MW-1 in monitoring events in 2006, 2017, 2019, and 2024 with a maximum concentration of 669 $\mu\text{g/L}$ reported in 2017. Large fluctuations in total naphthalene concentrations at MW-1 in recent years make it difficult to identify a trend for total naphthalene concentrations at this time.

In historical monitoring events, periodically in MW-2 since 1992, benzene has been reported above the NMWQCC standard of 5 $\mu\text{g/L}$, although results have ranged from below a laboratory detection limit of 0.5 $\mu\text{g/L}$ up to 90 $\mu\text{g/L}$. Historical reports indicate that other VOCs have occasionally been detected in MW-2 but have remained below NMWQCC standards or do not have a NMWQCC standard. Although relatively low concentrations of BTEX constituents were reported at MW-3 in the June 1992 monitoring event, BTEX concentrations have been below laboratory detection limits in MW-3 since then.

During the January 2024 monitoring event at MW-1, various VOCs were detected and total naphthalene was detected above the NMWQCC standard. No VOCs were detected in MW-2 or MW-3. VOC analytical data from the January 2024 monitoring event are summarized in Table 2, and historical data are presented in Appendix C. These results suggest containment to the north and east of the site.

III. SUMMARY AND CONCLUSIONS

A. Discussion of any trends or changes noted in analytical results or site conditions

Temperature, pH, dissolved oxygen, and specific conductance measurements, taken in the field prior to sample collection, are presented in Table 1. A summary of laboratory results from the January 2024 monitoring event for VOCs that have been previously detected is presented as Table 2. Figures 3 through 6 show concentrations of selected VOCs as well as dissolved iron and manganese in the groundwater samples collected at the Halsell's Grocery site. Due to the VOC results being below laboratory detection limits in MW-2 and MW-3, concentration contours of the plume are not presented in Figures 3 through 5. The laboratory analytical report is included as Appendix A, and a copy of field notes as at MW-1 included as Appendix B. Summaries of analytical results collected at the site to-date is included in Appendix C. Graphs of selected VOCs and dissolved iron and manganese concentrations versus time for monitoring wells MW-1, MW-2, and MW-3 are included as Appendix D.

Table 1. Groundwater parameters measured in the field, January 3, 2024, Halsell's Grocery site, Hatch, New Mexico

well	date	pH	temperature, °F	specific conductance, μS/cm	dissolved oxygen, mg/L
MW-1 ^a	01/03/2024	7.15	75.6	1,271	1.94
MW-2 ^a	01/03/2024	7.33	74.5	1,295	2.28
MW-3	01/03/2024	7.25	74.8	1,597	4.14

^a hydrocarbon odor observed during purging
μS/cm - microSiemens per centimeter
mg/L - milligrams per liter

**Table 2. Summary of analytical results, January 3, 2024,
Halsell's Grocery site, Hatch, New Mexico**

	MW-1	MW-2	MW-3	NMWQCC standard
constituent	concentration, micrograms per liter (µg/L)			
benzene	1.3	<1.0	<1.0	5
toluene	<1.0	<1.0	<1.0	1,000
ethylbenzene	160	<1.0	<1.0	700
total xylenes	17	<1.5	<1.5	620
MTBE	<1.0	<1.0	<1.0	100
1,2,4-TMB	15	<1.0	<1.0	ns
1,3,5-TMB	9.8	<1.0	<1.0	ns
EDB	<0.0095	<0.0094	<0.0094	0.05
EDC	<1.0	<1.0	<1.0	5
total naphthalene ^a	135	<10.0	<10.0	30 ^a
naphthalene	60	<2.0	<2.0	
1-methylnaphthalene	51	<4.0	<4.0	
2-methylnaphthalene	24	<4.0	<4.0	
isopropylbenzene	93	<1.0	<1.0	ns
4-isopropyltoluene	3.8	<1.0	<1.0	ns
n-butylbenzene	26	<3.0	<3.0	ns
n-propylbenzene	190	<1.0	<1.0	ns
sec-butylbenzene	31	<1.0	<1.0	ns

^a sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene concentrations

NMWQCC - New Mexico Water Quality Control Commission

MTBE - methyl-tertiary-butyl-ether

1,2,4-TMB - 1,2,4-trimethylbenzene

1,3,5-TMB - 1,3,5-trimethylbenzene

EDB - 1,2-dibromoethane

EDC - 1,2-dichloroethane

ns - no standard

bold indicates above NMWQCC standard

JSAI

The following sections summarize changes in VOC, dissolved iron, and dissolved manganese concentrations, and changes in groundwater elevations at the site.

BTEX

Historically, BTEX constituents were detected at all three monitoring wells during the June 1992 monitoring event. In MW-3, BTEX constituents have remained below laboratory detection limits for each monitoring event after 1992. Benzene has been reported frequently in MW-1 and occasionally in MW-2 since June 1992, with the most recent, and the last time, detected above the NMWQCC standard of 5 µg/L at both wells in 2019. Toluene has been reported below laboratory detection limits at MW-2 since the February 1998 monitoring event, and at MW-1 since the September 2006 monitoring event. Ethylbenzene has been reported below laboratory detection limits at MW-2 since the November 2019 monitoring event, and total xylenes have been reported below laboratory detection limits at MW-2 since the August 2002 monitoring event. Ethylbenzene and total xylenes have frequently been detected at MW-1, but have remained below the NMWQCC standards in every monitoring event after June 1992. Benzene, ethylbenzene, and total xylenes were detected in MW-1 during the January 2024 monitoring event, but remained below the NMWQCC standards, and toluene in MW-1 was reported below the laboratory detection limit during the January 2024 monitoring event. BTEX concentrations were reported below laboratory detection limits for MW-2 and MW-3 during the January 2024 monitoring event.

Total Naphthalene

Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene have been reported below laboratory detection limits for every monitoring event for which data are available at MW-3. Naphthalene and 1-methylnaphthalene have been detected at MW-2; however, total naphthalene have remained below the NMWQCC standard of 30 µg/L for each event. Total naphthalene has been reported in MW-1 above the NMWQCC standard during monitoring events in 2006, 2017, and 2019, with total concentrations ranging between 59 and 669 µg/L. Although total naphthalene was reported below the NMWQCC standard in MW-1 during the December 2021 monitoring event, the January 2024 monitoring event detected total naphthalene above the NMWQCC standard of 30 µg/L at 135 µg/L.

JSAI

MTBE

MTBE has remained below laboratory detection limits in all wells for each monitoring event since March 2001.

1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

July 2017 is the first monitoring event for which results of 1,2,4-TMB and 1,3,5-TMB analysis is provided. 1,2,4-TMB was detected at MW-1 at concentration of 230 µg/L in July 2017, but has remained at or under 15 µg/L for each following event. 1,3,5-TMB was detected in MW-1 at 61 µg/L during the July 2017 monitoring event, but was below laboratory detection limits until the January 2024 monitoring event, when it was reported at 9.8 µg/L. Both 1,2,4-TMB and 1,3,5-TMB have remained below laboratory detection limits at MW-2 and MW-3 for all events for which data were provided.

1,2-dibromoethane (EDB)

1,2-dibromoethane (EDB) has remained below laboratory detection limits for all monitoring events for which data were provided. It should be noted that in the December 2021 monitoring event, as well as each event prior to January 2015, a laboratory detection limit above the NMWQCC standard of 0.05 µg/L was used.

Dissolved Iron and Manganese

Dissolved iron, which has been reported above the NMWQCC standard of 1.0 µg/L in MW-2 during two events in 2019, was below 1.0 µg/L in all three monitoring wells during the January 2024 monitoring event. Dissolved manganese was above the NMWQCC standard of 0.2 µg/L in all three wells during the January 2024 monitoring event, with concentrations of 0.38, 0.61, and 0.36 µg/L in MW-1, MW-2, and MW-3, respectively. Historical data indicate that dissolved manganese has been reported above the NMWQCC in MW-1 and MW-2 for all monitoring events since March 2001, and in MW-3 for all events since September 2006.

Groundwater Elevation

The average depth to water in groundwater monitoring wells measured on January 3, 2024 was 12.77 ft below measuring point (bmp). Compared to December 2021, groundwater levels in January 2024 ranged from 0.16 ft to 0.20 ft deeper, and 0.18 ft deeper on average. Table 3 shows a summary of groundwater elevations measured during the January 2024 monitoring event. A map showing groundwater-elevation contours and flow direction is presented as Figure 7.

Table 3. Summary of groundwater elevations measured during the January 2024 monitoring event, Halsell's Grocery, Hatch, New Mexico

monitor well	date	top of casing elevation, ^b ft amsl	fluid depth, ft bmp	fluid elevation, ft amsl	PSH thickness, ft
MW-1	1/3/2024	4,054.98	12.85	4,042.13	a
MW-2	1/3/2024	4,054.54	12.80	4,041.74	a
MW-3	1/3/2024	4,054.85	12.66	4,042.19	a

a - no measurable PSH

b - casing elevation taken from Haller & Associates 2019 monitoring report

PSH - phase-separated hydrocarbons

ft bmp - feet below measuring point

ft amsl - feet above mean sea level

The graph in Appendix D shows that water levels in all three wells declined about 6 ft overall between May 2000 and January 2024.

The groundwater-flow direction at the site during the January 2024 monitoring event was generally to the southeast (see Fig. 7). During the time of this event, the groundwater gradient was about 0.003 ft/ft. A summary of water-level information collected at the site to-date is presented in Appendix C.

B. Ongoing assessment of remediation system

Historical reports do not indicate any remediation system requiring active operation.

C. Recommendations

Although all BTEX concentrations at MW-1 were below NMWQCC standards in January 2024, benzene has historically fluctuated above and below the NMWQCC standard of 5 µg/L. Additionally at MW-1, total naphthalene remained above the NMWQCC standard of 30 µg/L during the January 2024 event. JSAI recommends additional monitoring event at MW-1, MW-2, and MW-3 on a semi-annual basis to monitor contaminant concentration trends and the effects of the 2022 remediation injection at the site.

IV. REFERENCES

- Daniel B. Stephen & Associates, Inc., 2021, Remediation Activities Halsell's Grocery, Hatch, May 3, 2021.
- D&H United Fueling Solutions, 2021, Halsell's Groc (Release ID # 287, Facility # 6053), 112 School Street, Hatch, New Mexico, May 3, 2021.
- EA Engineering, Science and Technology, Inc., 2017, Groundwater Monitoring and NAPL Recovery Report, Halsell's Grocery, PSTB Facility #6053, 112 School Street, Hatch, New Mexico, July 2017.
- ENCON International, 1992, On-Site Investigation Report, Halsell's Supermarket, 101 School Street, Hatch, NM 87937, August 7, 1992.
- Haller & Associates, Inc. 2009, Groundwater Monitoring Report, Hatch State Lead Sites, Hatch, New Mexico, June 30, 2009.
- Haller & Associates, Inc., 2019, Groundwater Monitoring Report, Halsell's Grocery, Hatch, New Mexico, October 23, 2019.
- Haller & Associates, Inc., 2019, Groundwater Monitoring Report, Halsell's Grocery, Hatch, New Mexico, December 13, 2019.
- [SMA] Souder, Miller & Associates, Inc. 2021, Quote for Remediation Activities for Halsell's Grocery (Release ID #287; Facility #6053), May 3, 2021.
- [SMA] Souder, Miller & Associates, 2022a, WPID 4222-1 Pre-Injection Groundwater Sampling Summary Letter Halsell's Grocery State-Lead Site, 112 School Street, Hatch, New Mexico, January 3, 2022.
- [SMA] Souder, Miller & Associates, 2022b, Final remediation Plan, Halsall's Grocery State-Lead Site, March 24, 2022.
- [SMA] Souder, Miller & Associates, Inc. 2022c, Injection Summary Report, Halsell's Grocery State-Lead Site, 112 School Street, Hatch, NM, May 17, 2022.

ILLUSTRATIONS



Figure 1. Aerial photograph showing location of the Halsell's Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.



Explanation	
	monitoring well
	former UST and dispenser island area

Figure 2. Site map showing approximate locations of monitoring wells, former underground storage tank and dispenser island, and structures, Halsell's Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.



Figure 3. Site map showing BTEX and MTBE concentrations in monitoring wells, January 3, 2024, Halsell's Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.



Figure 4. Site map showing 1,2,4-TMB, 1,3,5-TMB, EDB, and EDC concentrations in monitoring wells, January 3, 2024, Halsell's Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.



Figure 5. Site map showing total naphthalene concentrations in monitoring wells, January 3, 2024, Halsell's Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.

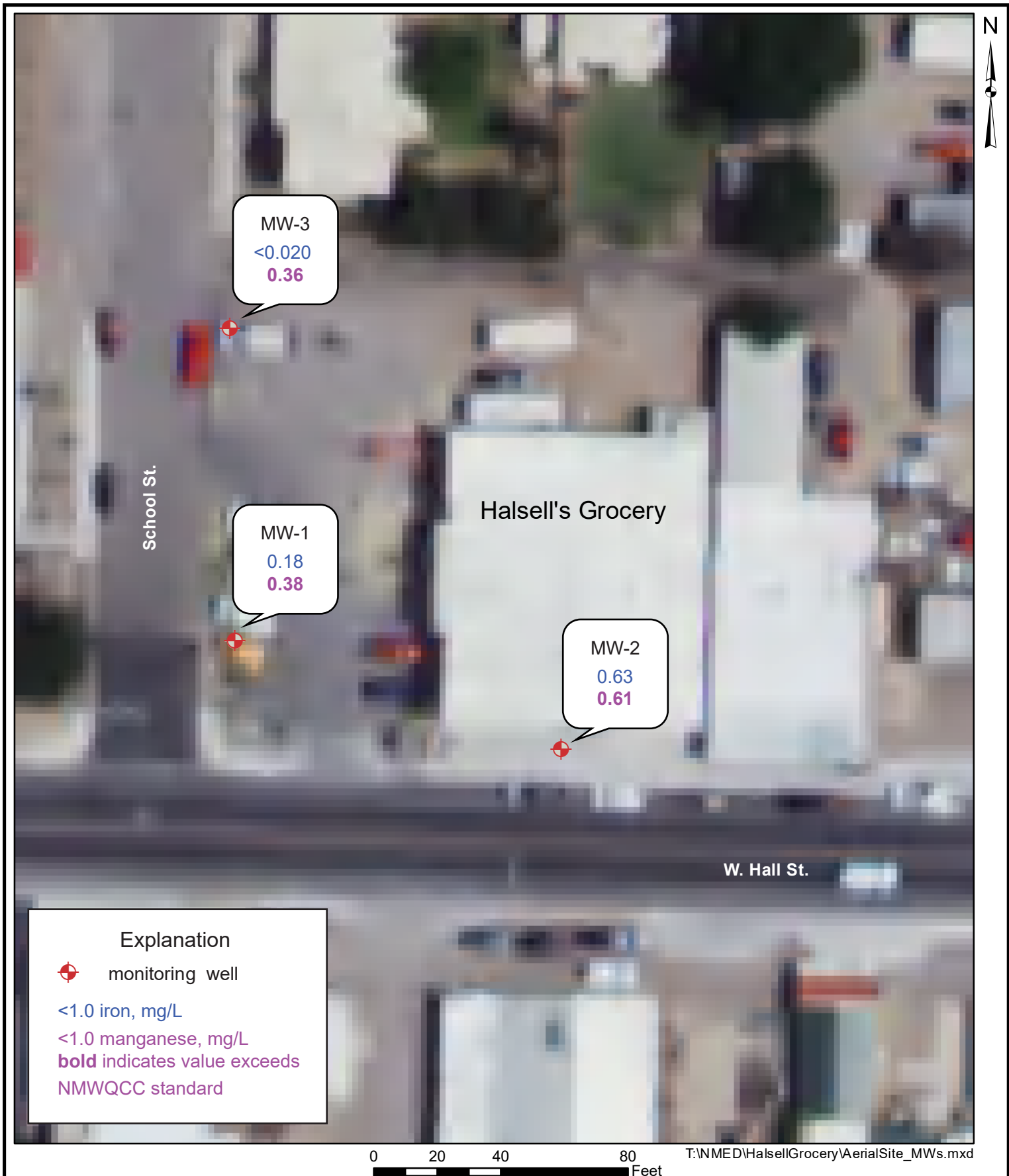


Figure 6. Site map showing dissolved iron and manganese concentrations in monitoring wells, January 3, 2024, Halsell's Grocery site, Facility #6053, 112 School Street, Hatch, New Mexico.

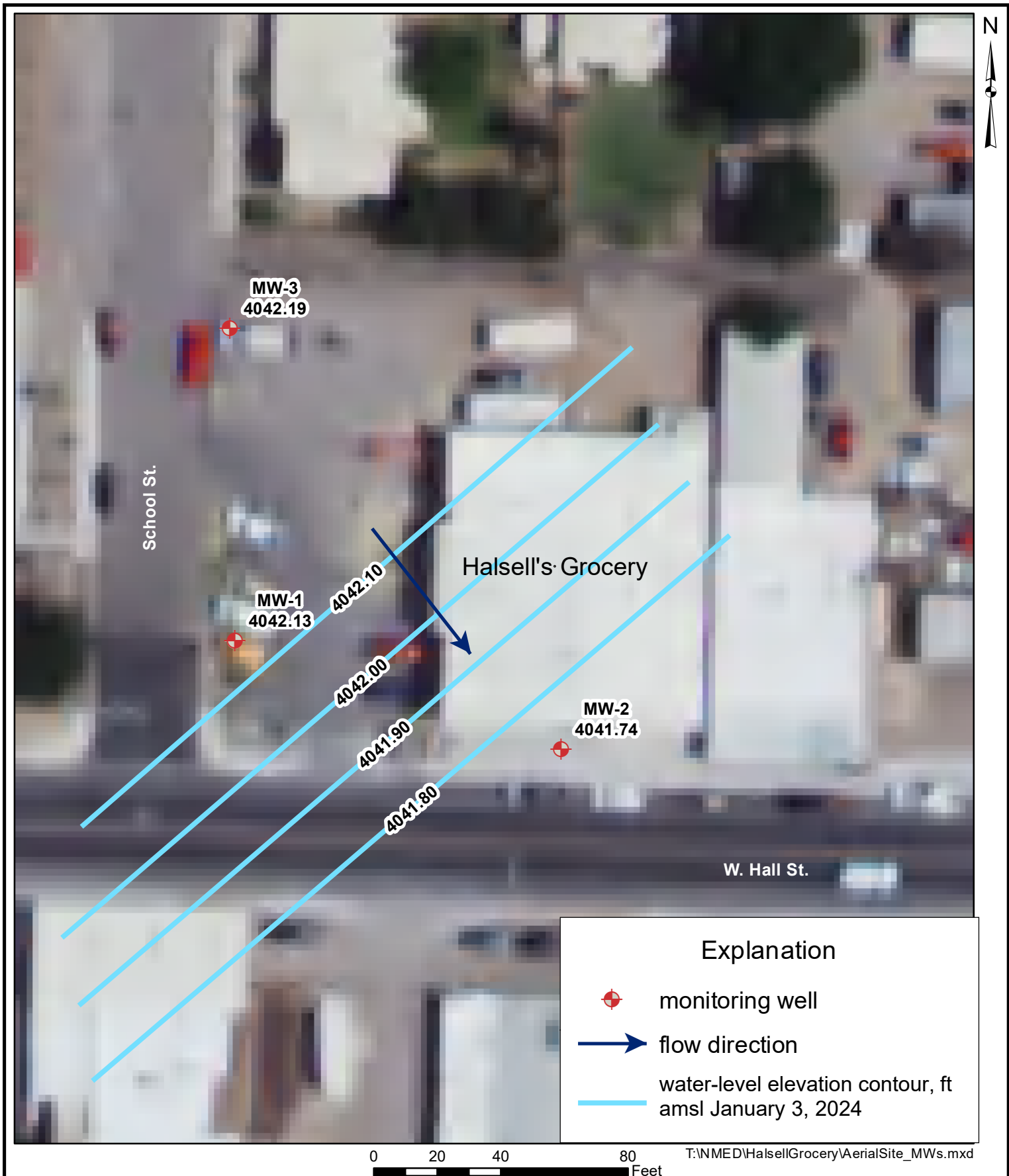


Figure 7. Aerial photograph showing water-level elevation contours and groundwater flow direction, January 3, 2024, Halsell's Grocery Site, Facility #6053, 112 School Street, Hatch, New Mexico.

APPENDICES

Appendix A

Copy of laboratory analytical results

January 18, 2024

Annie McCoy

John Shomaker & Assoc.

2611 Broadbent Parkway NE

Albuquerque, NM 87107

TEL: (505) 345-3407

FAX: (505) 345-9920

RE: Halsells Grocery

OrderNo.: 2401126

Dear Annie McCoy:

Eurofins Environment Testing South Central, LLC received 4 sample(s) on 1/3/2024 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,



Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401126

Date Reported: 1/18/2024

CLIENT: John Shomaker & Assoc.

Client Sample ID: MW-3

Project: Halsells Grocery

Collection Date: 1/3/2024 11:05:00 AM

Lab ID: 2401126-001

Matrix: AQUEOUS

Received Date: 1/3/2024 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 6010B: DISSOLVED METALS							Analyst: VP
Iron	ND	0.020		mg/L	1	1/11/2024 10:50:44 AM	A102374
Manganese	0.36	0.0020		mg/L	1	1/11/2024 10:50:44 AM	A102374
EPA METHOD 8011/504.1: EDB							Analyst: SB
1,2-Dibromoethane	ND	0.0094		µg/L	1	1/4/2024 10:26:57 PM	79712
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Toluene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Ethylbenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Naphthalene	ND	2.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1-Methylnaphthalene	ND	4.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
2-Methylnaphthalene	ND	4.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Acetone	ND	10		µg/L	1	1/9/2024 8:12:00 PM	R102324
Bromobenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Bromodichloromethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Bromoform	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Bromomethane	ND	3.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
2-Butanone	ND	10		µg/L	1	1/9/2024 8:12:00 PM	R102324
Carbon disulfide	ND	10		µg/L	1	1/9/2024 8:12:00 PM	R102324
Carbon Tetrachloride	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Chlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Chloroethane	ND	2.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Chloroform	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Chloromethane	ND	3.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
2-Chlorotoluene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
4-Chlorotoluene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
cis-1,2-DCE	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Dibromochloromethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Dibromomethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401126

Date Reported: 1/18/2024

CLIENT: John Shomaker & Assoc.

Client Sample ID: MW-3

Project: Halsells Grocery

Collection Date: 1/3/2024 11:05:00 AM

Lab ID: 2401126-001

Matrix: AQUEOUS

Received Date: 1/3/2024 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,1-Dichloroethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,1-Dichloroethene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2-Dichloropropane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,3-Dichloropropane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
2,2-Dichloropropane	ND	2.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,1-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Hexachlorobutadiene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
2-Hexanone	ND	10		µg/L	1	1/9/2024 8:12:00 PM	R102324
Isopropylbenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
4-Isopropyltoluene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
4-Methyl-2-pentanone	ND	10		µg/L	1	1/9/2024 8:12:00 PM	R102324
Methylene Chloride	ND	3.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
n-Butylbenzene	ND	3.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
n-Propylbenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
sec-Butylbenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Styrene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
tert-Butylbenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
trans-1,2-DCE	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Trichlorofluoromethane	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Vinyl chloride	ND	1.0		µg/L	1	1/9/2024 8:12:00 PM	R102324
Xylenes, Total	ND	1.5		µg/L	1	1/9/2024 8:12:00 PM	R102324
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	1/9/2024 8:12:00 PM	R102324
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	1/9/2024 8:12:00 PM	R102324
Surr: Dibromofluoromethane	102	70-130		%Rec	1	1/9/2024 8:12:00 PM	R102324
Surr: Toluene-d8	98.9	70-130		%Rec	1	1/9/2024 8:12:00 PM	R102324

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401126

Date Reported: 1/18/2024

CLIENT: John Shomaker & Assoc.

Client Sample ID: MW-2

Project: Halsells Grocery

Collection Date: 1/3/2024 11:57:00 AM

Lab ID: 2401126-002

Matrix: AQUEOUS

Received Date: 1/3/2024 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 6010B: DISSOLVED METALS							Analyst: VP
Iron	0.63	0.020		mg/L	1	1/11/2024 11:02:21 AM	A102374
Manganese	0.61	0.0020		mg/L	1	1/11/2024 11:02:21 AM	A102374
EPA METHOD 8011/504.1: EDB							Analyst: SB
1,2-Dibromoethane	ND	0.0094		µg/L	1	1/4/2024 10:43:42 PM	79712
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Toluene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Ethylbenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Naphthalene	ND	2.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1-Methylnaphthalene	ND	4.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
2-Methylnaphthalene	ND	4.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Acetone	ND	10		µg/L	1	1/9/2024 8:36:00 PM	R102324
Bromobenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Bromodichloromethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Bromoform	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Bromomethane	ND	3.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
2-Butanone	ND	10		µg/L	1	1/9/2024 8:36:00 PM	R102324
Carbon disulfide	ND	10		µg/L	1	1/9/2024 8:36:00 PM	R102324
Carbon Tetrachloride	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Chlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Chloroethane	ND	2.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Chloroform	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Chloromethane	ND	3.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
2-Chlorotoluene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
4-Chlorotoluene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
cis-1,2-DCE	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Dibromochloromethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Dibromomethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401126

Date Reported: 1/18/2024

CLIENT: John Shomaker & Assoc.

Client Sample ID: MW-2

Project: Halsells Grocery

Collection Date: 1/3/2024 11:57:00 AM

Lab ID: 2401126-002

Matrix: AQUEOUS

Received Date: 1/3/2024 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,1-Dichloroethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,1-Dichloroethene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2-Dichloropropane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,3-Dichloropropane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
2,2-Dichloropropane	ND	2.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,1-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Hexachlorobutadiene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
2-Hexanone	ND	10		µg/L	1	1/9/2024 8:36:00 PM	R102324
Isopropylbenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
4-Isopropyltoluene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
4-Methyl-2-pentanone	ND	10		µg/L	1	1/9/2024 8:36:00 PM	R102324
Methylene Chloride	ND	3.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
n-Butylbenzene	ND	3.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
n-Propylbenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
sec-Butylbenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Styrene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
tert-Butylbenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
trans-1,2-DCE	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Trichlorofluoromethane	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Vinyl chloride	ND	1.0		µg/L	1	1/9/2024 8:36:00 PM	R102324
Xylenes, Total	ND	1.5		µg/L	1	1/9/2024 8:36:00 PM	R102324
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	1/9/2024 8:36:00 PM	R102324
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	1/9/2024 8:36:00 PM	R102324
Surr: Dibromofluoromethane	103	70-130		%Rec	1	1/9/2024 8:36:00 PM	R102324
Surr: Toluene-d8	100	70-130		%Rec	1	1/9/2024 8:36:00 PM	R102324

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401126

Date Reported: 1/18/2024

CLIENT: John Shomaker & Assoc.

Client Sample ID: MW-1

Project: Halsells Grocery

Collection Date: 1/3/2024 12:50:00 PM

Lab ID: 2401126-003

Matrix: AQUEOUS

Received Date: 1/3/2024 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 6010B: DISSOLVED METALS							Analyst: VP
Iron	0.18	0.020		mg/L	1	1/11/2024 11:05:22 AM	A102374
Manganese	0.38	0.0020		mg/L	1	1/11/2024 11:05:22 AM	A102374
EPA METHOD 8011/504.1: EDB							Analyst: SB
1,2-Dibromoethane	ND	0.0095		µg/L	1	1/4/2024 11:00:21 PM	79712
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	1.3	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Toluene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Ethylbenzene	160	10		µg/L	10	1/10/2024 3:13:00 PM	R102352
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2,4-Trimethylbenzene	15	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,3,5-Trimethylbenzene	9.8	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Naphthalene	60	2.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1-Methylnaphthalene	51	4.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
2-Methylnaphthalene	24	4.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Acetone	ND	10		µg/L	1	1/9/2024 9:01:00 PM	R102324
Bromobenzene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Bromodichloromethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Bromoform	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Bromomethane	ND	3.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
2-Butanone	ND	10		µg/L	1	1/9/2024 9:01:00 PM	R102324
Carbon disulfide	ND	10		µg/L	1	1/9/2024 9:01:00 PM	R102324
Carbon Tetrachloride	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Chlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Chloroethane	ND	2.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Chloroform	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Chloromethane	ND	3.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
2-Chlorotoluene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
4-Chlorotoluene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
cis-1,2-DCE	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Dibromochloromethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Dibromomethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401126

Date Reported: 1/18/2024

CLIENT: John Shomaker & Assoc.

Client Sample ID: MW-1

Project: Halsells Grocery

Collection Date: 1/3/2024 12:50:00 PM

Lab ID: 2401126-003

Matrix: AQUEOUS

Received Date: 1/3/2024 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,1-Dichloroethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,1-Dichloroethene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2-Dichloropropane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,3-Dichloropropane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
2,2-Dichloropropane	ND	2.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,1-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Hexachlorobutadiene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
2-Hexanone	ND	10		µg/L	1	1/9/2024 9:01:00 PM	R102324
Isopropylbenzene	93	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
4-Isopropyltoluene	3.8	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
4-Methyl-2-pentanone	ND	10		µg/L	1	1/9/2024 9:01:00 PM	R102324
Methylene Chloride	ND	3.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
n-Butylbenzene	26	3.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
n-Propylbenzene	190	10		µg/L	10	1/10/2024 3:13:00 PM	R102352
sec-Butylbenzene	31	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Styrene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
tert-Butylbenzene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
trans-1,2-DCE	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Trichlorofluoromethane	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Vinyl chloride	ND	1.0		µg/L	1	1/9/2024 9:01:00 PM	R102324
Xylenes, Total	17	1.5		µg/L	1	1/9/2024 9:01:00 PM	R102324
Surr: 1,2-Dichloroethane-d4	91.7	70-130		%Rec	1	1/9/2024 9:01:00 PM	R102324
Surr: 4-Bromofluorobenzene	92.7	70-130		%Rec	1	1/9/2024 9:01:00 PM	R102324
Surr: Dibromofluoromethane	99.5	70-130		%Rec	1	1/9/2024 9:01:00 PM	R102324
Surr: Toluene-d8	130	70-130	S	%Rec	1	1/9/2024 9:01:00 PM	R102324

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401126

Date Reported: 1/18/2024

CLIENT: John Shomaker & Assoc.

Client Sample ID: Trip Blank

Project: Halsells Grocery

Collection Date:

Lab ID: 2401126-004

Matrix: TRIP BLANK

Received Date: 1/3/2024 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB							Analyst: SB
1,2-Dibromoethane	ND	0.0096		µg/L	1	1/4/2024 11:17:03 PM	79712
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Toluene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Ethylbenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Naphthalene	ND	2.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1-Methylnaphthalene	5.0	4.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
2-Methylnaphthalene	ND	4.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Acetone	ND	10		µg/L	1	1/9/2024 9:25:00 PM	R102324
Bromobenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Bromodichloromethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Bromoform	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Bromomethane	ND	3.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
2-Butanone	ND	10		µg/L	1	1/9/2024 9:25:00 PM	R102324
Carbon disulfide	ND	10		µg/L	1	1/9/2024 9:25:00 PM	R102324
Carbon Tetrachloride	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Chlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Chloroethane	ND	2.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Chloroform	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Chloromethane	ND	3.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
2-Chlorotoluene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
4-Chlorotoluene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
cis-1,2-DCE	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Dibromochloromethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Dibromomethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,1-Dichloroethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,1-Dichloroethene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2-Dichloropropane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401126

Date Reported: 1/18/2024

CLIENT: John Shomaker & Assoc.

Client Sample ID: Trip Blank

Project: Halsells Grocery

Collection Date:

Lab ID: 2401126-004

Matrix: TRIP BLANK

Received Date: 1/3/2024 4:13:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
2,2-Dichloropropane	ND	2.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,1-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Hexachlorobutadiene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
2-Hexanone	ND	10		µg/L	1	1/9/2024 9:25:00 PM	R102324
Isopropylbenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
4-Isopropyltoluene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
4-Methyl-2-pentanone	ND	10		µg/L	1	1/9/2024 9:25:00 PM	R102324
Methylene Chloride	ND	3.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
n-Butylbenzene	ND	3.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
n-Propylbenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
sec-Butylbenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Styrene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
tert-Butylbenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
trans-1,2-DCE	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Trichlorofluoromethane	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Vinyl chloride	ND	1.0		µg/L	1	1/9/2024 9:25:00 PM	R102324
Xylenes, Total	ND	1.5		µg/L	1	1/9/2024 9:25:00 PM	R102324
Surr: 1,2-Dichloroethane-d4	97.2	70-130		%Rec	1	1/9/2024 9:25:00 PM	R102324
Surr: 4-Bromofluorobenzene	125	70-130		%Rec	1	1/9/2024 9:25:00 PM	R102324
Surr: Dibromofluoromethane	101	70-130		%Rec	1	1/9/2024 9:25:00 PM	R102324
Surr: Toluene-d8	95.9	70-130		%Rec	1	1/9/2024 9:25:00 PM	R102324

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2401126

18-Jan-24

Client: John Shomaker & Assoc.

Project: Halsells Grocery

Sample ID: MB-79712	SampType: MBLK	TestCode: EPA Method 8011/504.1: EDB								
Client ID: PBW	Batch ID: 79712	RunNo: 102260								
Prep Date: 1/4/2024	Analysis Date: 1/4/2024	SeqNo: 3776016	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID: LCS-79712	SampType: LCS	TestCode: EPA Method 8011/504.1: EDB								
Client ID: LCSW	Batch ID: 79712	RunNo: 102260								
Prep Date: 1/4/2024	Analysis Date: 1/4/2024	SeqNo: 3776017	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	108	70	130			

Sample ID: LCSD-79712	SampType: LCSD	TestCode: EPA Method 8011/504.1: EDB								
Client ID: LCSS02	Batch ID: 79712	RunNo: 102260								
Prep Date: 1/4/2024	Analysis Date: 1/4/2024	SeqNo: 3776018	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	109	70	130	1.08	20	

Sample ID: MB-79712	SampType: MBLK	TestCode: EPA Method 8011/504.1: EDB								
Client ID: PBW	Batch ID: 79712	RunNo: 102260								
Prep Date: 1/4/2024	Analysis Date: 1/4/2024	SeqNo: 3776019	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID: LCS-79712	SampType: LCS	TestCode: EPA Method 8011/504.1: EDB								
Client ID: LCSW	Batch ID: 79712	RunNo: 102260								
Prep Date: 1/4/2024	Analysis Date: 1/4/2024	SeqNo: 3776020	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	111	70	130			

Sample ID: LCSD-79712	SampType: LCSD	TestCode: EPA Method 8011/504.1: EDB								
Client ID: LCSS02	Batch ID: 79712	RunNo: 102260								
Prep Date: 1/4/2024	Analysis Date: 1/4/2024	SeqNo: 3776021	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.12	0.010	0.1000	0	115	70	130	3.75	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2401126

18-Jan-24

Client: John Shomaker & Assoc.

Project: Halsells Grocery

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES								
Client ID: LCSW	Batch ID: R102324	RunNo: 102324								
Prep Date:	Analysis Date: 1/9/2024	SeqNo: 3778622	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.1	70	130			
Toluene	19	1.0	20.00	0	93.7	70	130			
Chlorobenzene	19	1.0	20.00	0	95.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.7	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R102324	RunNo: 102324								
Prep Date:	Analysis Date: 1/9/2024	SeqNo: 3778625	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	12	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2401126

18-Jan-24

Client: John Shomaker & Assoc.

Project: Halsells Grocery

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R102324	RunNo: 102324								
Prep Date:	Analysis Date: 1/9/2024	SeqNo: 3778625			Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2401126

18-Jan-24

Client: John Shomaker & Assoc.

Project: Halsells Grocery

Sample ID: MB	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R102324		RunNo: 102324							
Prep Date:	Analysis Date: 1/9/2024		SeqNo: 3778625		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID: 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R102352		RunNo: 102352							
Prep Date:	Analysis Date: 1/10/2024		SeqNo: 3779843		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	13		10.00		126	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	7.8		10.00		78.0	70	130			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R102352		RunNo: 102352							
Prep Date:	Analysis Date: 1/10/2024		SeqNo: 3780452		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.9		10.00		99.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2401126

18-Jan-24

Client: John Shomaker & Assoc.

Project: Halsells Grocery

Sample ID: MB-A	SampType: MBLK	TestCode: EPA Method 6010B: Dissolved Metals								
Client ID: PBW	Batch ID: A102374	RunNo: 102374								
Prep Date:	Analysis Date: 1/11/2024	SeqNo: 3780838	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Manganese	ND	0.0020								

Sample ID: LCS-A	SampType: LCS	TestCode: EPA Method 6010B: Dissolved Metals								
Client ID: LCSW	Batch ID: A102374	RunNo: 102374								
Prep Date:	Analysis Date: 1/11/2024	SeqNo: 3780841	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0	95.8	80	120			
Manganese	0.49	0.0020	0.5000	0	97.4	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Sample Log-In Check List

Client Name: **John Shomaker & Assoc.** Work Order Number: **2401126** RcptNo: **1**

Received By: **Nancy Proctor** 1/3/2024 4:13:00 PM

Completed By: **Cheyenne Cason** 1/3/2024 4:22:08 PM

Reviewed By: **SCM 1/3/24**

Handwritten signature

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes No NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
5. Sample(s) in proper container(s)? Yes No
6. Sufficient sample volume for indicated test(s)? Yes No
7. Are samples (except VOA and ONG) properly preserved? Yes No
8. Was preservative added to bottles? Yes No NA
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
10. Were any sample containers received broken? Yes No
11. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes No
13. Is it clear what analyses were requested? Yes No
14. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: 3
(~~2~~ or >12 unless noted)

Adjusted? No

Checked by: mg 1/3/24

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: John Shumaker 3 Associates
 Mailing Address: 2611 Broadbent Pkwy Albuquerque NM 87106
 Phone #: 505 345 3407

email or Fax#: amccoy@shumaker.com
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Az Compliance
 NELAC Other

EDD (Type) Excel's PDF
 # of Coolers: 1
 Cooler Temp (including CF): 2.5 to 0.1 = 2.4°C

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
11/3/24	11:05	AQ	MW-3	6, VACUUMS	HCl, Na2S2O3, HNO3	2401126
11/3/24	11:57	AQ	MW-2	GENERICUS	HCl, Na2S2O3, HNO3	001
11/3/24	12:50	AQ	MW-1	GENERICUS	HCl, Na2S2O3, HNO3	002
			Trip Blank			003
						004

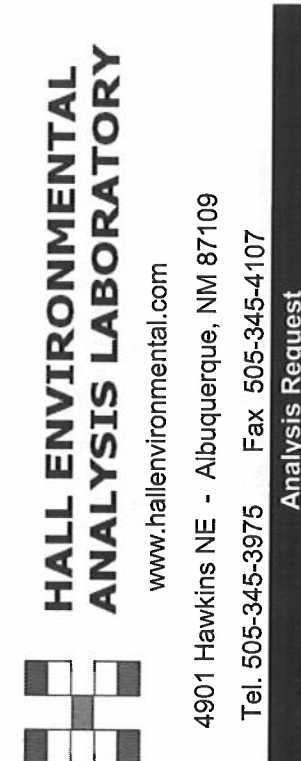
Date: 11/3/24 Time: 16:13
 Relinquished by: Alvinda Judylyn
 Date: 11/3/24 Time: 16:13
 Relinquished by: ZZZ CAO

Turn-Around Time:
 Standard Rush
 Project Name: Halsell's Grocery
 Project #:

Project Manager: Annie McCoy
 Sampler: AKM / RM
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): 2.5 to 0.1 = 2.4°C

Analysis Request	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO3, NO2, PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Ethylene diamide 504.1	Dissolved Fe 6010B	Dissolved Mn 6010B	VOA 8260B
											X	X	X	X
											X	X	X	X
											X	X	X	X

Received by: ZZZ CAO Date: 11/3/24 Time: 16:13
 Received by: ZZZ CAO Date: 11/3/24 Time: 16:13



Remarks:

Appendix B
Copy of field notes

DAILY FIELD LOG

DATE: January 3, 2024

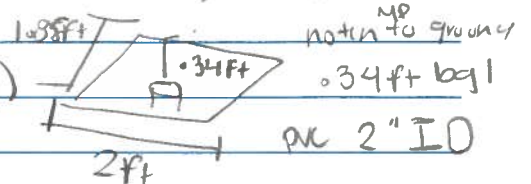
ACTIVITY: Annual groundwater monitoring

CLIENT: NMED

GEOLOGIST: AKM/IRM

PROJECT: Halsey's grape site

09:29 RM AKM arrived on site; open wellheads at MW-1, MW-2, and MW-3. Mark wells w/ cones.



09:43 MW-3: DTW = 12.66 ft bmp (notch on PVC casing)

09:45 19.91 TD = MW-3 MP = 0.34 ft bgl

No product detected using interface probe

09:52 MW-2: DTW = 12.80 ft bmp (MP = black mark on PVC casing). Tagged bottom at 20.00 ft bmp. MP = 0.22 ft bgl. Well completed in cement patio, no pad. No product detected using interface probe.

09:58 MW-1: Note: standing water in well vault, very strong hydrocarbon smell, sheen on outside fluid, only one bolt in well cover.

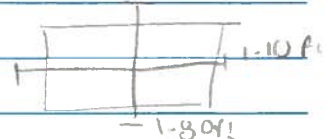
10:00 MW-1: DTW 12.85 ft bmp (MP = black notch west of PVC)

no product detected with interface probe, 2" ID PVC

MW-1: TD = 19.72 ft, MP = 0.25 ft bgl

11:05 Collect sample at MW-3 after 73 well volumes

purged and WQ stable.



11:57 Collect sample at MW-2 after 73 well volumes purged and WQ stable.

12:50 Collect sample at MW-2 after 73 well volumes purged and WQ stable. All samples stored on ice.

13:14 RM AKM off site samples in cooler; all wells closed.

WELL SAMPLING/DEVELOPMENT FORM

JOHN SHOMAKER & ASSOCIATES, INC.
 WATER-RESOURCE AND ENVIRONMENTAL CONSULTANTS

2611 BROADBENT PARKWAY NE
 ALBUQUERQUE, NEW MEXICO 87107
 (505) 345-3407, FAX (505) 345-9920
 WWW.SHOMAKER.COM

DATE: January 3, 2024
 CLIENT: NMED / PSTB
 PROJECT: Halsell's Grocery
 LOCATION: 112 School St
 GEOLOGIST: AKMIRM

Well Name/ID: NW-3 Purging Method: Bailing
 Size of casing (in.): 2 TD of Well (ft): 19.91 Water level (ft bmp): 12.66
 Water column (ft): 7.25 Well volume (gal): 1.16 x 3 purge vol. min. (gal): 3.54

Time	Volume purged (gal)	Temp (°C)	pH	Conductivity (µS/cm)	DO (ppm or mg/l)	Nature of discharge; clarity	Sheen	HC Odor	Other
10:34	0	21.8	7.06	1,581	4.32	Clear w/ black sed.	N	None	
10:41	1.25	23.1	7.22	1,601	4.03	Brown, cloudy	N	None	
10:45	2.5	23.0	7.24	1,700	3.66	"	N	None	
10:52	3.75	22.8	7.27	1,705	5.08	"	N	None	
10:57	4	22.9	7.23	1,611	3.83	"	N	None	
10:59	4.25	23.8	7.25	1,597	4.14	"	N	None	
11:05									Collect sample after 7.3 well volumes purged and WQ stable.

Sample
 Time: 11:05 Volume purged (gal): 4.25
 Number x volume (ml): ^{3 x 100A (HCl)} 2 x 40 ml (Sodium Thiosulfate) Preservative type: HCl, Sodium thiosulfate, HNO₃
 Filter Size: 0.45 µm ^{1 x 125 ml (HNO₃, filtered)} How stored (ice/blue ice/specify): Ice

Appendix C

Summary tables of measured parameters for the period of record

Table C1. Summary of analytical results for organic analyses for monitoring wells at Halsell's Grocery site, Hatch, New Mexico

Table C2. Summary of analytical results for inorganic analyses for monitoring wells at Halsell's Grocery site, Hatch, New Mexico

Table C3. Summary of water-level data from monitoring wells at the Halsell's Grocery site, Hatch, New Mexico

Table C1. Summary of analytical results for organic analyses for monitoring wells at Halsell's Grocery site, Hatch, New Mexico

well	sample date	benzene	toluene	ethylbenzene	total xylenes	MTBE	1,2,4 TMB	1,3,5 TMB	EDB	EDC	total naphthalene	naphthalene	1-methylnaphthalene	2-methylnaphthalene	isopropylbenzene	4-isopropyltoluene	n-butylbenzene	n-propylbenzene	sec-butylbenzene		
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
MW-1	6/3/1992	863	4,423	1,165	<2.0	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--	--	
	2/2/1998	84	15	290	98	<25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	1/26/2000	<5.0	<5.0	170	15	<5.0	--	--	<5.0	--	14	--	--	--	--	--	--	--	--	--	
	5/2/2000	7.4	2.1	130	20	<2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/27/2000	13	2.3	120	19	7.8	--	--	<2.0	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2001	23	<5.0	180	44	<25	--	--	<10	--	--	--	--	--	--	--	--	--	--	--	
	6/15/2001	8.1	1.4	67	13	<2.5	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--	
	9/12/2001	14	2.5	150	33	<2.5	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--	
	5/15/2002	22	<1.0	4.1	<4.5	<1.0	--	--	<1.0	--	<3.0	--	--	--	--	--	--	--	--	--	
	8/15/2002	20	<5.0	110	16	<25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	11/26/2002	3.8	2	88	16	<2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	2/19/2003	7.1	7.5	110	26	<25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/12/2006	81	<10	220	130	<15	--	--	<10	--	78	--	--	--	--	--	--	--	--	--	
	11/22/2011	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	6/19/2012	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	1/8/2015	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	4/28/2015	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	7/29/2015	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	10/14/2015	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	1/18/2017	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7/5/2017	36	<5.0	470	99	<5.0	230	61	<0.0092	<5.0	669	360	220	89	41	9.5	<15	29	16			
9/5/2019	7	<5.0	300	14	<5.0	15	<5.0	<0.0094	<5.0	< 75	28	27	<20	50	<5.0	<15	95	10			
11/21/2019	13	<5.0	330	16	<5.0	12	<5.0	<0.0093	<5.0	59	25	34	<20	57	<5.0	<15	100	8.7			
12/6/2021	<2.0	<2.0	24	<5.0	<5.0	3.3	<2.0	<2.0	<2.0	<27	7	<10	<10	14	<2.0	<7.5	28	4.4			
1/3/2024	1.3	<1.0	160	17	<1.0	15	9.8	<0.0095	<1.0	135	60	51	24	93	3.8	26	190	31			

Table C1. Summary of analytical results for organic analyses for monitoring wells at Halsell's Grocery site, Hatch, New Mexico

well	sample date	benzene	toluene	ethylbenzene	total xylenes	MTBE	1,2,4 TMB	1,3,5 TMB	EDB	EDC	total naphthalene	naphthalene	1-methylnaphthalene	2-methylnaphthalene	isopropylbenzene	4-isopropyltoluene	n-butylbenzene	n-propylbenzene	sec-butylbenzene	
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-2	6/3/1992	5.5	26	6.1	27	--	--	--	--	<0.1	--	--	--	--	--	--	--	--	--	--
	2/2/1998	<0.5	<0.5	2.1	0.6	<2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/26/2000	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	<1.0	--	--	<2.0	--	--	--	--	--	--	--	--
	5/2/2000	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/2000	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--
	3/14/2001	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--
	6/15/2001	<0.5	<0.5	2.2	1	<2.5	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--
	9/12/2001	0.6	<0.5	<0.5	1.3	<2.5	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--
	5/15/2002	1.1	<0.5	8.3	3.6	<2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/2002	3.4	<2.5	<2.5	<5.0	<13	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/19/2003	<0.5	<0.5	<0.5	<1.0	<2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/12/2006	90	<1.0	5	<3.0	<1.5	--	--	<1.0	--	--	3.9	--	--	--	--	--	--	--	--
	11/22/2011	1.3	<1.0	1.1	<1.5	<1.0	--	--	<1.0	<1.0	<10.0	<2.0	<4.0	<4.0	--	--	--	--	--	--
	6/19/2012	5.6	<1.0	<1.0	<1.5	<1.0	--	--	<1.0	<1.0	<10.0	<2.0	<4.0	<4.0	--	--	--	--	--	--
	1/8/2015	<1.0	<1.0	<1.0	<1.5	<1.0	--	--	<0.010	<1.0	<10.0	<2.0	<4.0	<4.0	--	--	--	--	--	--
	4/28/2015	<2.0	<2.0	<2.0	<3.0	<2.0	--	--	<0.010	<2.0	<20.0	<4.0	<8.0	<8.0	--	--	--	--	--	--
	7/29/2015	<1.0	<1.0	<1.0	<1.5	<1.0	--	--	<0.010	<1.0	<10.0	<2.0	<4.0	<4.0	--	--	--	--	--	--
	10/14/2015	<1.0	<1.0	<1.0	<1.5	<1.0	--	--	<0.010	<1.0	<10.0	<2.0	<4.0	<4.0	--	--	--	--	--	--
	1/18/2017	<1.0	<1.0	<1.0	<1.5	<1.0	--	--	<0.010	<1.0	<10.5	<2.0	4.5	<4.0	--	--	--	--	--	--
	9/5/2019	9.4	<1.0	1	<1.5	<1.0	<1.0	<1.0	<0.0094	<1.0	<17.3	3.3	10	<4.0	24	<1.0	<3.0	10	5.4	
11/21/2019	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<0.0094	<1.0	<10.0	<2.0	<4.0	<4.0	<1.0	<1.0	<3.0	<1.0	<1.0		
12/6/2021	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<2.0	<4.0	<4.0	4.2	<1.0	<3.0	<1.0	<1.0		
1/3/2024	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<0.0094	<1.0	<10.0	<2.0	<4.0	<4.0	<1.0	<1.0	<3.0	<1.0	<1.0		

Table C1. Summary of analytical results for organic analyses for monitoring wells at Halsell's Grocery site, Hatch, New Mexico

well	sample date	benzene	toluene	ethylbenzene	total xylenes	MTBE	1,2,4 TMB	1,3,5 TMB	EDB	EDC	total naphthalene	naphthalene	1-methylnaphthalene	2-methylnaphthalene	isopropylbenzene	4-isopropyltoluene	n-butylbenzene	n-propylbenzene	sec-butylbenzene	
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-3	6/3/1992	0.1	1.6	0.5	2	---	---	---	<0.1	<0.1	---	---	---	---	---	---	---	---	---	---
	2/2/1998	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/26/2000	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	<1.0	---	<2.0	---	---	---	---	---	---	---	---	---
	5/2/2000	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	7/27/2000	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	<1.0	---	---	---	---	---	---	---	---	---	---	---
	3/14/2001	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	<1.0	---	---	---	---	---	---	---	---	---	---	---
	6/15/2001	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	<1.0	---	---	---	---	---	---	---	---	---	---	---
	9/12/2001	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	<1.0	---	---	---	---	---	---	---	---	---	---	---
	5/15/2002	<0.5	<0.5	<0.5	<1.0	<2.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	8/15/2002	<0.5	<0.5	<0.5	<1.0	<2.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/19/2003	<0.5	<0.5	<0.5	<1.0	<2.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	9/12/2006	<1.0	<1.0	<1.0	<3.0	<1.5	---	---	<1.0	---	<2.0	---	---	---	---	---	---	---	---	---
	11/22/2011	<1.0	<1.0	<1.0	<1.5	<1.0	---	---	<1.0	---	<2.0	---	---	---	---	---	---	---	---	---
	6/19/2012	<1.0	<1.0	<1.0	<1.5	<1.0	---	---	<1.0	---	<2.0	---	---	---	---	---	---	---	---	---
	1/8/2015	<1.0	<1.0	<1.0	<1.5	<1.0	---	---	<0.010	---	<2.0	---	---	---	---	---	---	---	---	---
9/5/2019	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<0.0095	<2.0	<10.0	<2.0	<4.0	<4.0	<1.0	<1.0	<3.0	<1.0	<1.0		
11/21/2019	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<0.0094	<1.0	<10.0	<2.0	<4.0	<4.0	<1.0	<1.0	<3.0	<1.0	<1.0		
12/6/2021	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<2.0	<4.0	<4.0	<1.0	<1.0	<3.0	<1.0	<1.0		
1/3/2024	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<0.0094	<1.0	<10.0	<2.0	<4.0	<4.0	<1.0	<1.0	<3.0	<1.0	<1.0		
NMWQCC standards	5	1,000	700	620	100	ns	ns	0.05	5	30 ^a			ns	ns	ns	ns	ns	ns		

Note: prior to 2024, a laboratory detection above the NMWQCC standard for EBD was used in some events.

^a sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene concentrations

* not sampled due to presence of LNAPL

bold at or exceeds NMWQCC standard

MTBE - methyl-tertiary-butyl-ether

NMWQCC - New Mexico Water Quality Control Commission

1,2,4-TMB - 1,2,4-trimethylbenzene

1,3,5-TMB - 1,3,5-trimethylbenzene

EDB- 1,2-dibromoethane

EDC- 1,2-dichloroethane

µg/L - micrograms per liter

ns - no standard

Table C2. Summary of analytical results for inorganic analyses for monitoring wells at Halsell's Grocery site, Hatch, New Mexico

well	date	dissolved iron	dissolved manganese
		mg/L	mg/L
MW-1	3/14/2001	<0.02	0.488
	6/14/2001	0.03	0.319
	5/15/2002	<0.5	0.35
	8/15/2002	0.09	0.28
	9/12/2006	---	0.29
	9/5/2019	0.36	0.45
	11/21/2019	0.22	0.29
	1/3/2024	0.18	0.38
MW-2	3/14/2001	<0.02	0.734
	6/14/2001	0.08	0.938
	5/15/2002	<0.5	0.92
	8/15/2002	0.04	0.89
	9/12/2006	---	0.36
	9/5/2019	2.1	1.2
	11/21/2019	2	0.86
	1/3/2024	0.63	0.61
MW-3	3/14/2001	<0.02	0.048
	6/14/2001	<0.02	0.1
	5/15/2002	<0.5	<0.063
	8/15/2002	0.02	0.09
	9/12/2006	---	0.22
	9/5/2019	0.37	0.97
	11/21/2019	0.33	0.98
	1/3/2024	<0.020	0.36
NMWQCC standard		1	0.2

bold at or exceeds NMWQCC standard
 NMWQCC - New Mexico Water Quality Control Commission
 mg/L - milligrams per liter
 --- - not reported

Table C3. Summary of water-level data from monitoring wells at the Halsell's Grocery site, Hatch, New Mexico

date	NAPL thickness (ft)	depth to water (ft btoc)	groundwater elevation (ft amsl)
MW-1 (top of casing = 4,054.98 ft amsl)			
5/4/2000	---	6.64	4,048.34
7/26/2000	---	5.11	4,049.87
3/14/2001	---	7.41	4,047.57
6/14/2001	---	6.06	4,048.92
9/12/2001	---	6.03	4,048.95
5/15/2002	---	7.17	4,047.81
8/15/2002	---	6.73	4,048.25
11/26/2002	---	7.44	4,047.54
2/19/2003	---	8.09	4,046.89
9/12/2006	---	5.81	4,049.17
6/2/2009	---	7.94	4,047.04
11/22/2011	0.02	13.21	4,041.77
5/31/2012	1.5	14.20	4,040.78
6/19/2012	0.88	13.29	4,041.69
1/8/2015	1.27	14.78	4,040.20
4/28/2015	1.69	16.28	4,038.70
7/29/2015	0.08	13.42	4,041.56
10/14/2015	sheen	13.04	4,041.94
1/18/2017	sheen	11.47	4,043.51
7/5/2017	sheen	10.27	4,044.71
9/5/2019	---	10.40	4,044.58
11/21/2019	---	10.60	4,044.38
12/6/2021	0	12.67	4,042.31
1/3/2024	0	12.85	4,042.13
MW-2 (top of casing = 4,054.54 ft amsl)			
5/4/2000	---	6.26	4,048.28
7/26/2000	---	1.70	4,052.84
3/14/2001	---	7.04	4,047.50
6/14/2001	---	5.62	4,048.92
9/12/2001	---	5.64	4,048.90
5/15/2002	---	6.76	4,047.78
8/15/2002	---	5.77	4,048.77
2/19/2003	---	7.72	4,046.82
9/12/2006	---	5.46	4,049.08
6/2/2009	---	7.58	4,046.96
11/22/2011	---	12.15	4,042.39
5/31/2012	---	12.72	4,041.82
6/19/2012	---	12.30	4,042.24
1/8/2015	---	13.89	4,040.65
4/28/2015	---	14.73	4,039.81

Table C3. Summary of water-level data from monitoring wells at the Halsell's Grocery site, Hatch, New Mexico

date	NAPL thickness (ft)	depth to water (ft btoc)	groundwater elevation (ft amsl)
MW-2, continued			
7/29/2015	---	13.07	4,041.47
10/14/2015	---	12.75	4,041.79
1/18/2017	---	11.13	4,043.41
7/5/2017	---	9.89	4,044.65
9/5/2019	---	10.02	4,044.52
11/21/2019	---	10.21	4,044.33
12/6/2021	0	12.60	4,041.94
1/3/2024	0	12.80	4,041.74
MW-3 (top of casing = 4,054.85 ft amsl)			
5/4/2000	---	6.48	4,048.37
7/26/2000	---	4.92	4,049.93
3/14/2001	---	7.31	4,047.54
6/14/2001	---	5.90	4,048.95
9/12/2001	---	5.91	4,048.94
5/15/2002	---	7.06	4,047.79
8/15/2002	---	6.58	4,048.27
2/19/2003	---	7.94	4,046.91
9/12/2006	---	5.64	4,049.21
6/2/2009	---	7.71	4,047.14
11/22/2011	---	12.28	4,042.57
5/31/2012	---	12.83	4,042.02
6/19/2012	---	12.39	4,042.46
1/8/2015	---	14.02	4,040.83
4/28/2015	---	14.80	4,040.05
7/29/2015	---	13.19	4,041.66
10/14/2015	---	12.83	4,042.02
1/18/2017	---	11.30	4,043.55
7/5/2017	---	10.06	4,044.79
9/5/2019	---	10.19	4,044.66
11/21/2019	---	10.40	4,044.45
12/6/2021	0	12.50	4,042.35
1/3/2024	0	12.66	4,042.19

Sources: Top of casing elevation reference from Haller & Associates, Inc., Dec. 2019

Data prior to 2024 compiled from consultants' reports provided by NMED/PSTB.

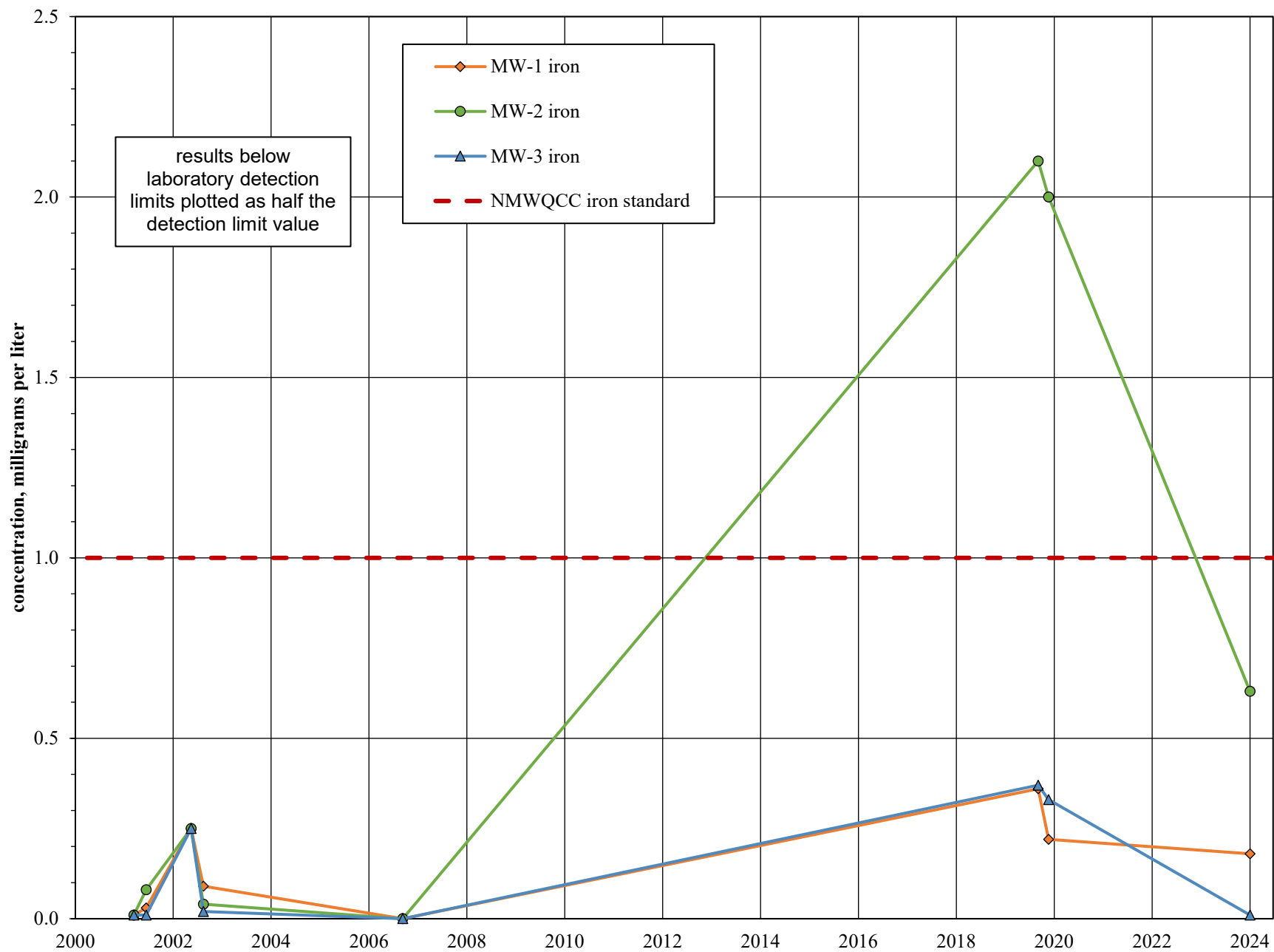
NAPL - non-aqueous phase liquid

ft btoc - feet below top of casing

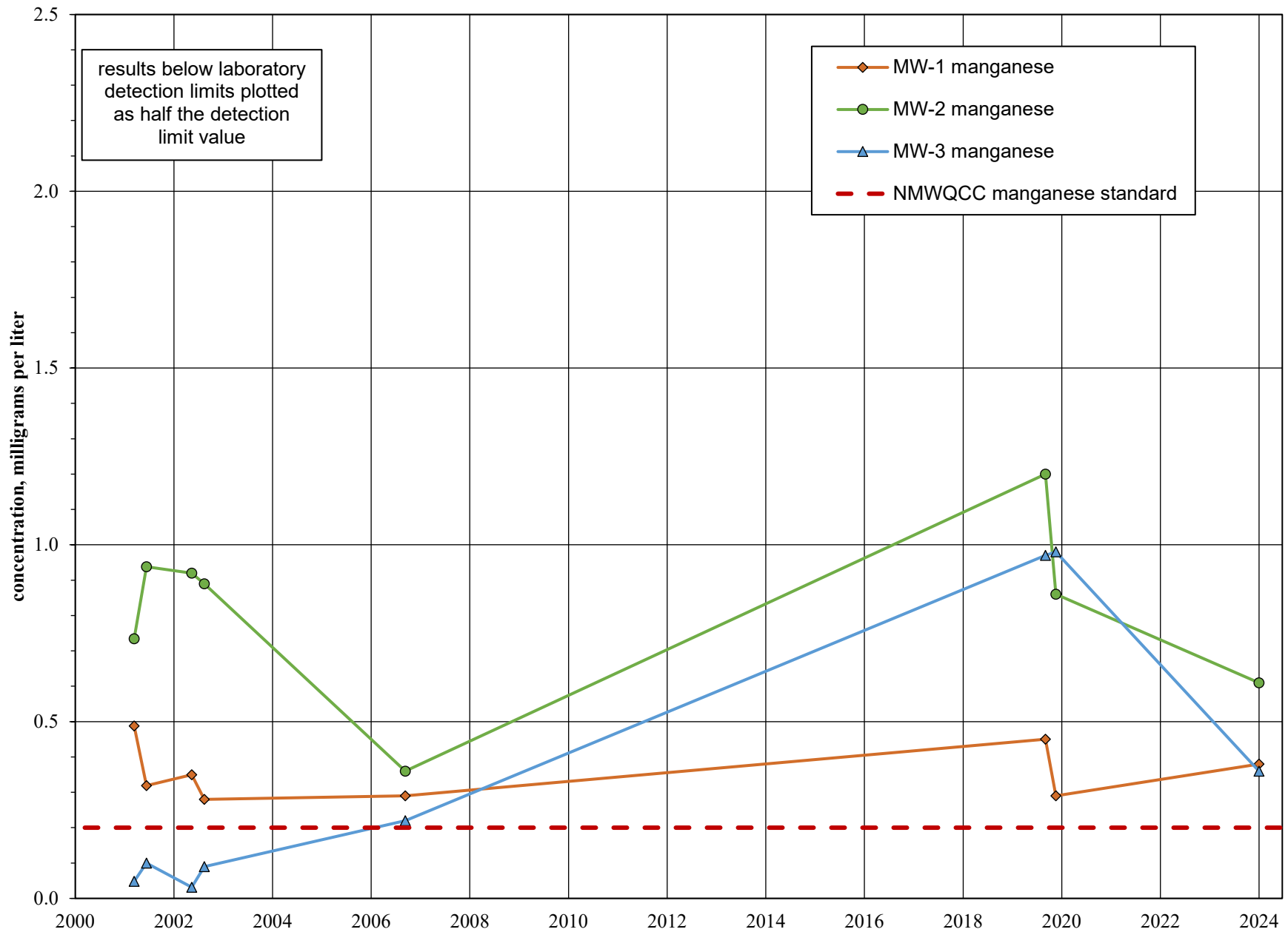
ft amsl - feet above mean sea level

Appendix D

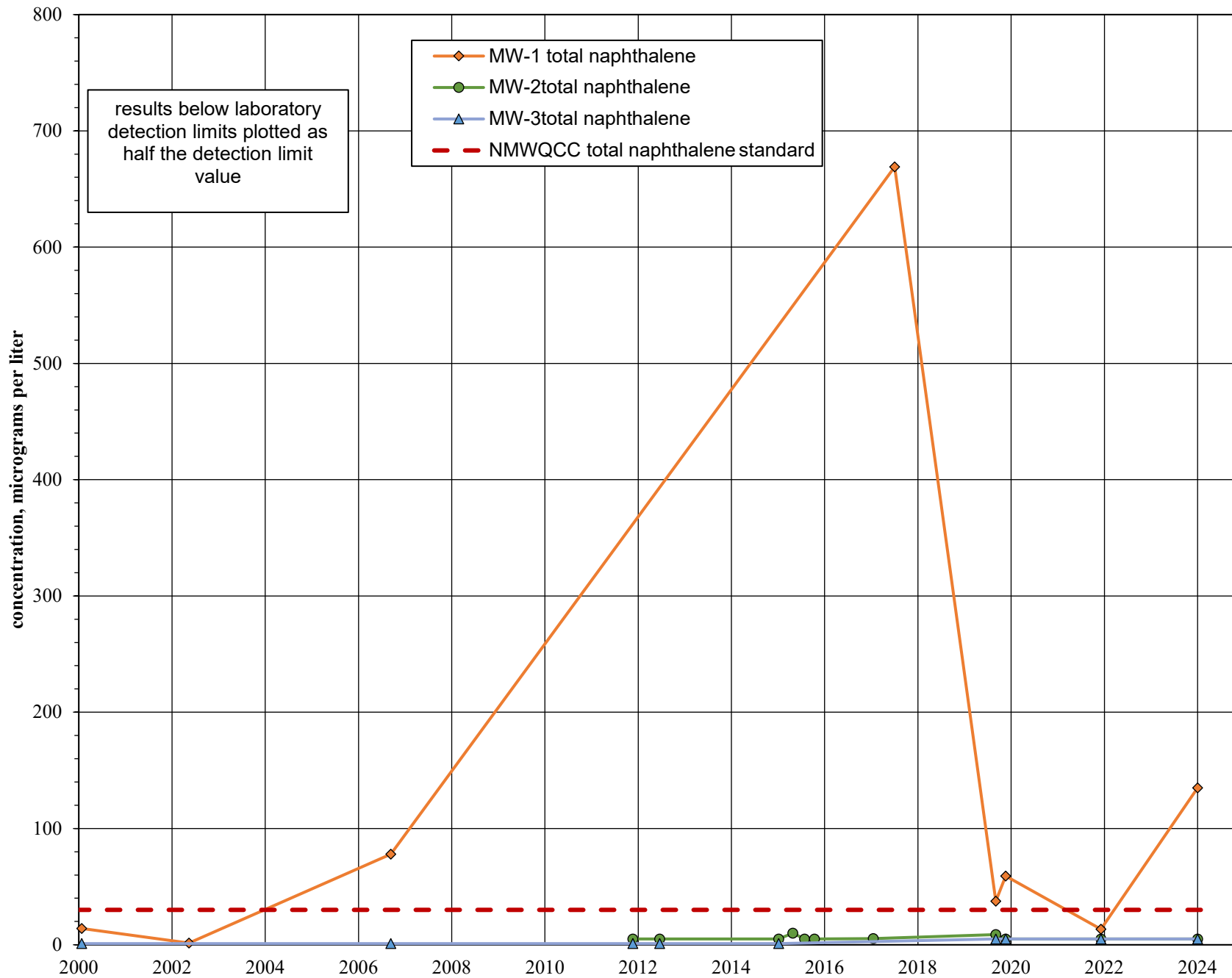
**Graphs of concentrations of selected VOCs, dissolved iron, and dissolved manganese
over time for all MW-1, MW-2, and MW-3**



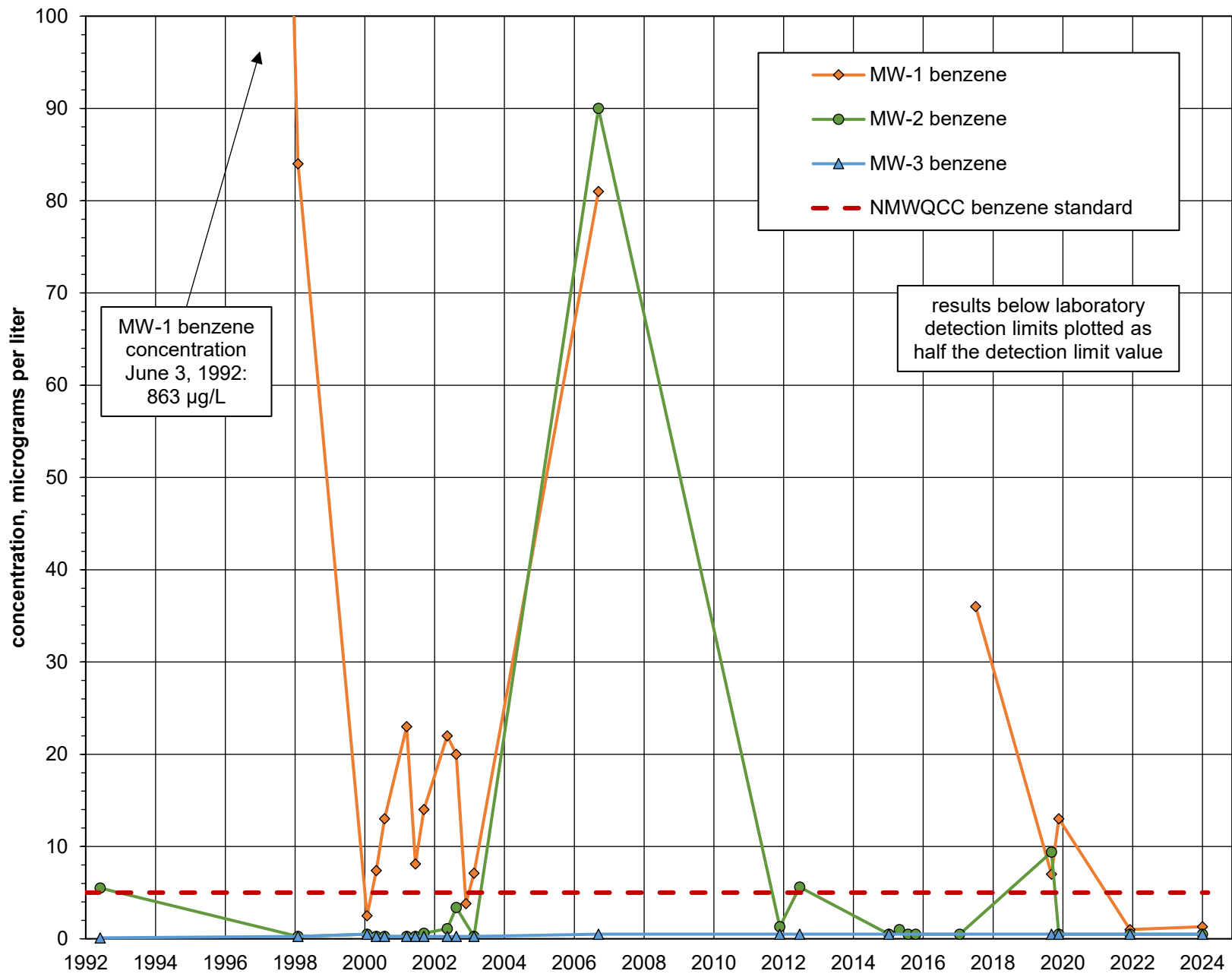
Concentrations of dissolved iron at monitoring wells versus time, Halsell's Grocery site, Facility #6053, Hatch, New Mexico.



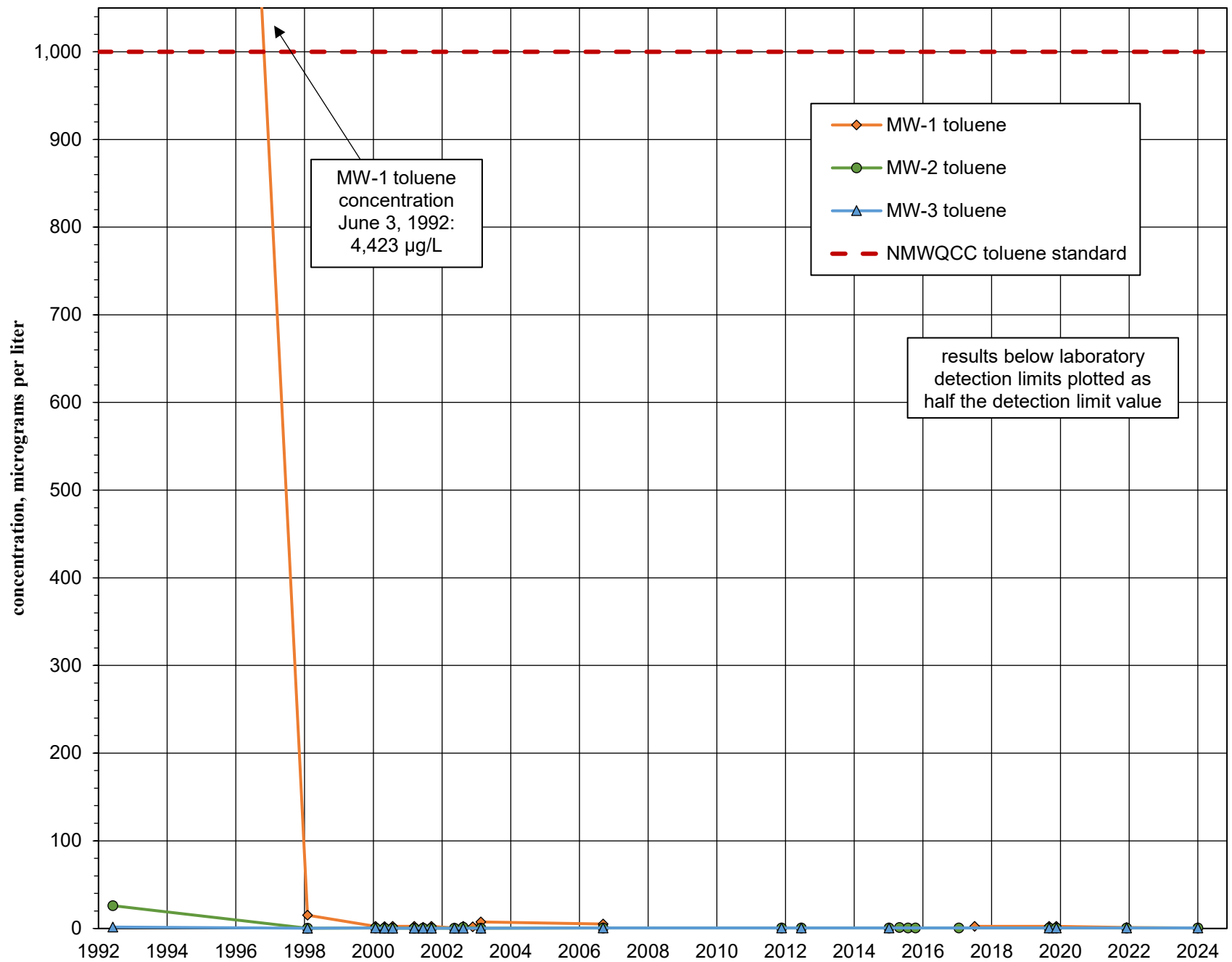
Concentrations of dissolved manganese in monitoring wells versus time, Halsell's Grocery site, Facility #6053, Hatch, New Mexico.



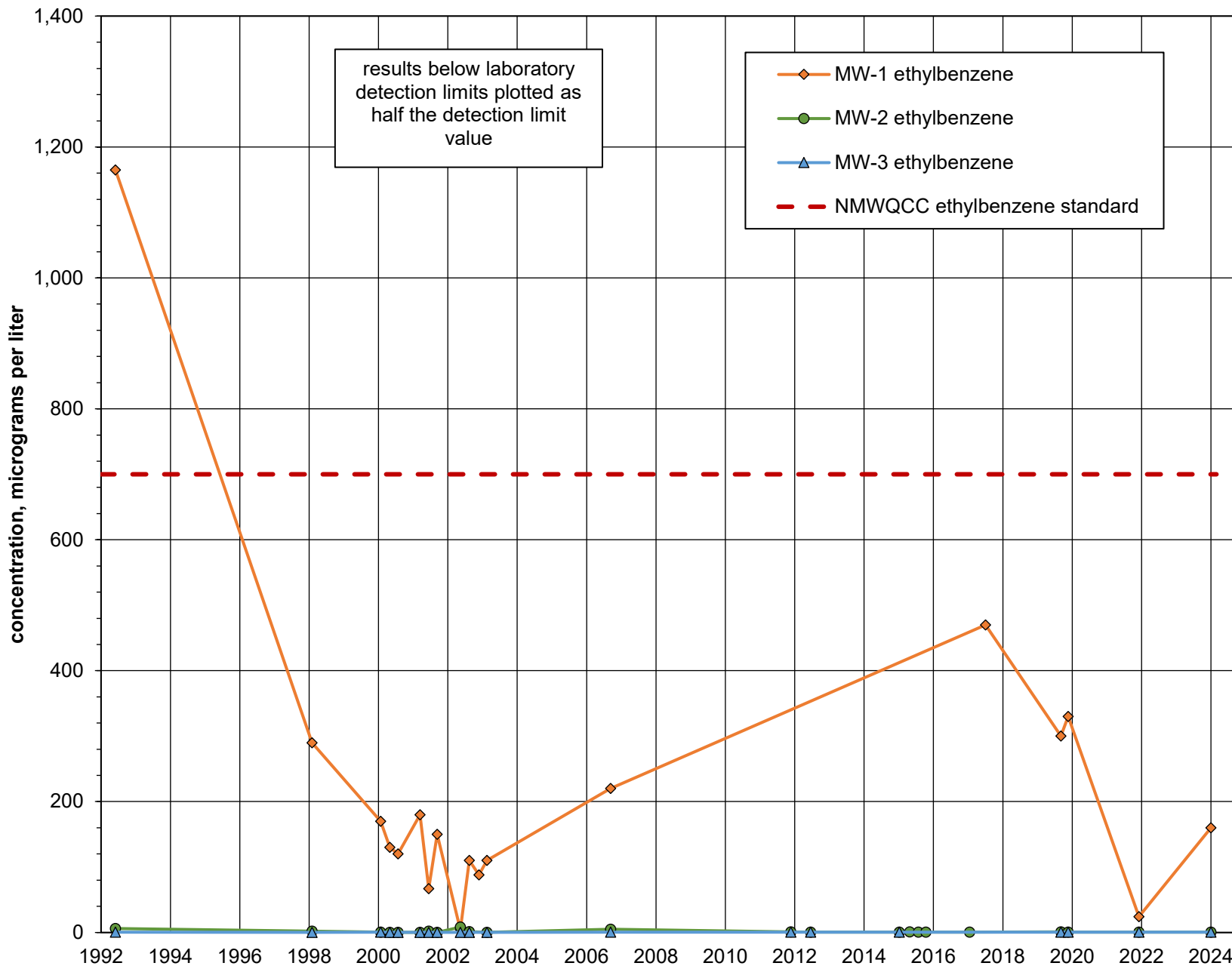
Concentrations of total naphthalene in monitoring wells versus time, Halsell's Grocery site, Facility #6053, Hatch, New Mexico.



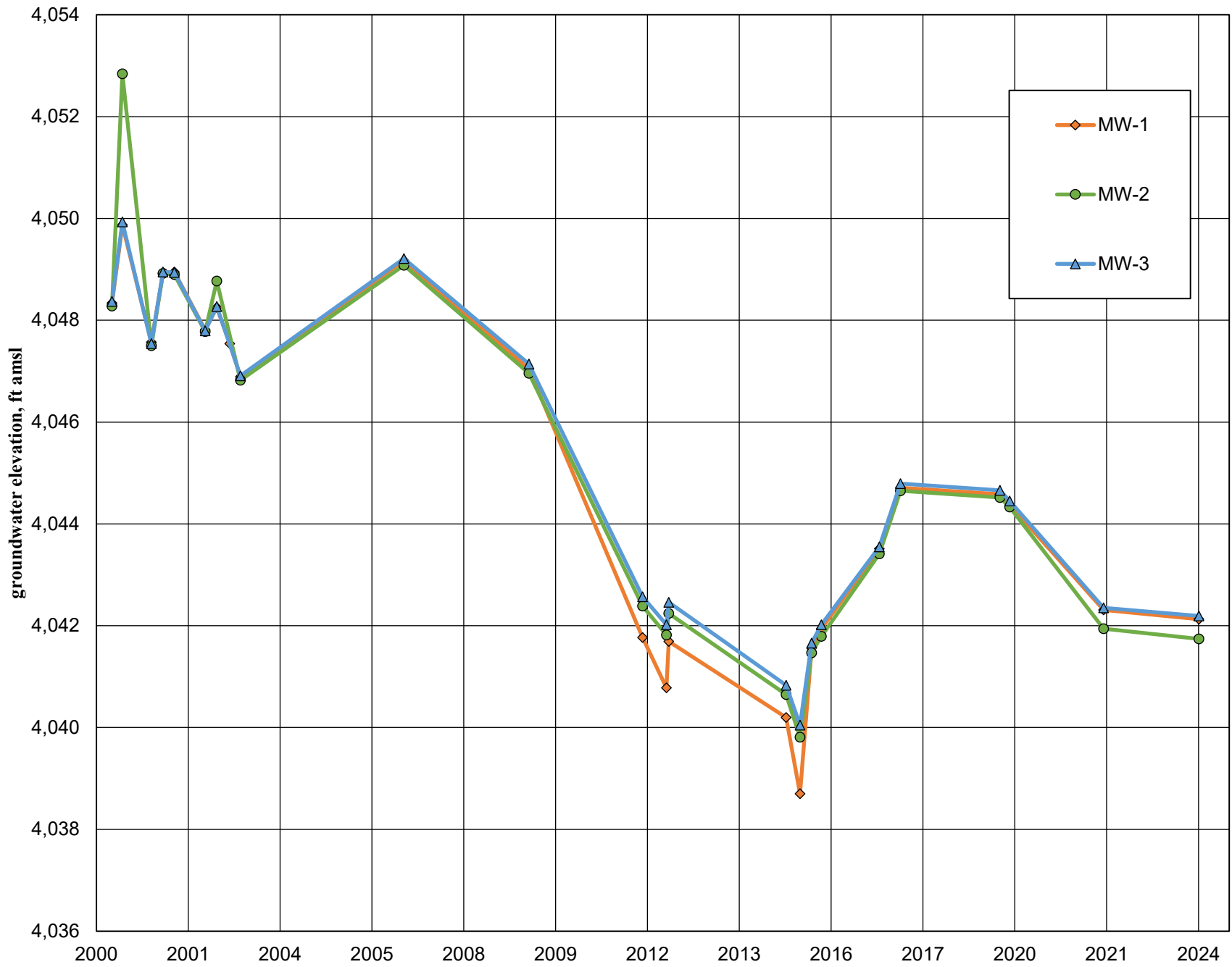
Concentrations of benzene in monitoring wells versus time, Halsell's Grocery site, Facility #6053, Hatch, New Mexico.



Concentrations of toluene in monitoring wells versus time, Halsell's Grocery site, Facility #6053, Hatch, New Mexico.



Concentrations of ethylbenzene in monitoring wells versus time, Halsell's Grocery site, Facility #6053, Hatch, New Mexico.



Groundwater elevation in monitoring wells versus time, Halsell's Grocery Site, Facility #6053, Hatch, New Mexico.