

# MER ENGINEERING, INC.

June 23, 2000

CON 12-15

Doc # 9610

Barbara Wethington, Environmental Specialist  
Contaminated Sites Section, IDNR  
Wallace State Building  
Des Moines, IA 50319

RE: New Millennium Development; F.D. Walgreens  
MER #9390

2000 JUN 29 1 A 3:33  
NATURAL RESOURCES  
DEPT. OF

Dear Ms. Wethington:

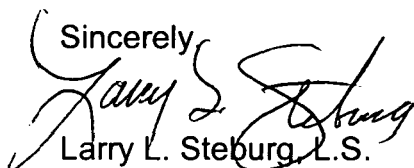
Please find attached the first monitoring report for the above referenced site.

The report contains:

1. Boring Logs/Well Installation Logs
2. Soil sample lab results OA1 & OA2
3. Water Sample lab results OA1 & OA2
4. Current Groundwater elevation dates.
5. Site Map
  - a). New monitoring well locations
  - b). Groundwater flow direction
6. Ordinances & Rules regulating private drinking water wells.

It is anticipated that a second monitoring event will be scheduled for November of 2000. Based upon the analytical results of the second event a pattern of stable or declining contamination conditions should be discernable. If you have any questions, give me a call.  
515-955-3635

Sincerely,

  
Larry L. Steburg, L.S.

LLS/sda

Enclosures

Cc: Chris Thomason

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**MONITORING REPORT**  
**FOR**  
**NEW MILLENNIUM DEVELOPMENT**  
**(FORT DODGE WALGREENS)**

***MER ENGINEERING, INC.***

**CONSULTING ENGINEERS**

MER# 9390

- Civil Engineers
  - Environmental Engineers
  - Land Surveyors
  - Agricultural Engineers
  - Geotechnical Engineers
  - Architectural Engineers
- 
- 



MONITORING REPORT  
FOR  
NEW MILLENNIUM DEVELOPMENT  
(FORT DODGE WALGREENS)

2000 JUN 26 A 3:33  
DEPT. OF  
NATURAL RESOURCES

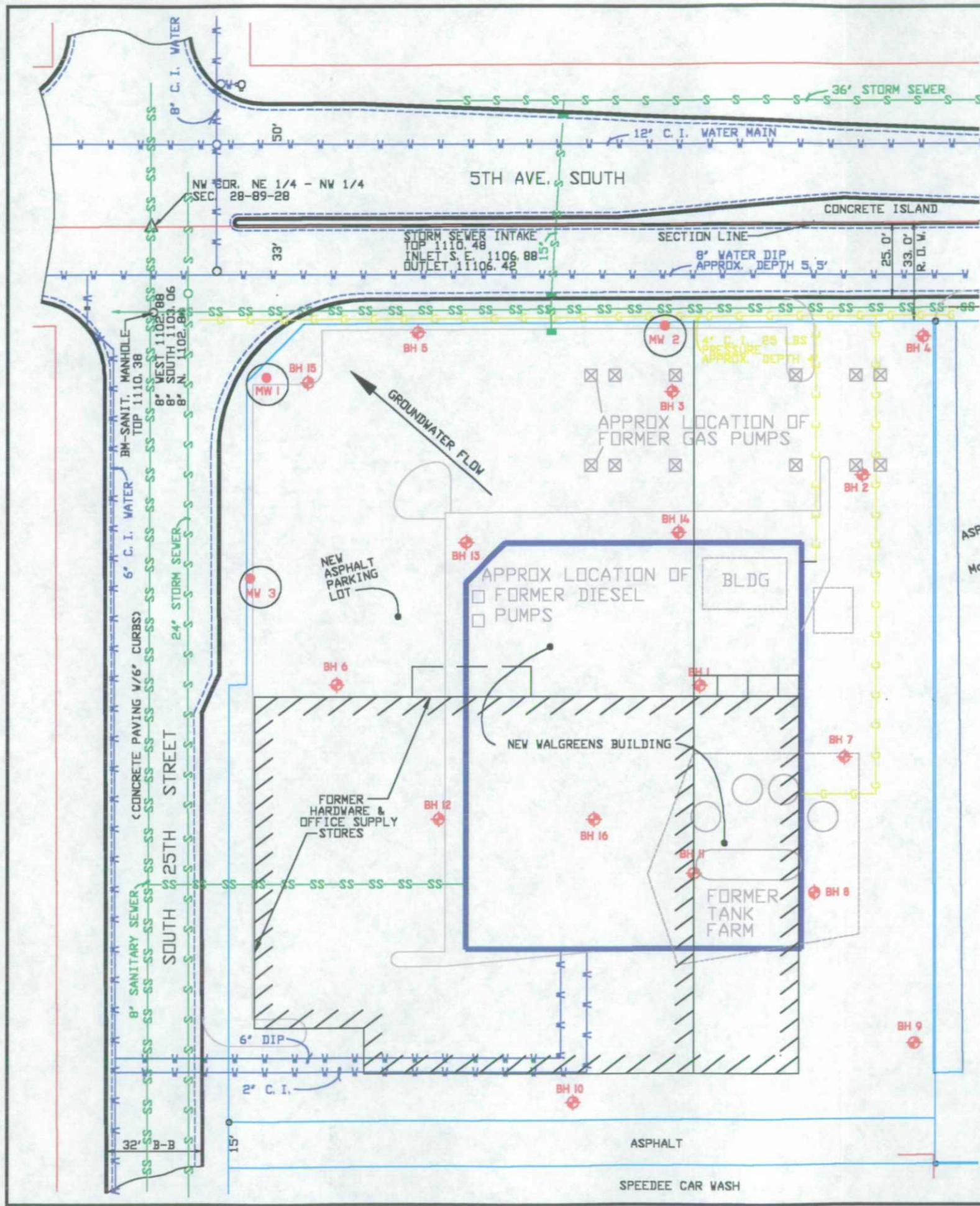
Three permanent Monitoring Wells were installed as per the approved plan on May 10, 2000. (See the Appendix for Boring/Well Logs) The wells were developed by purging and bailing on May 12th, 18th, and 22<sup>nd</sup>. Soil samples were taken during drilling operations and water samples were taken May 25, 2000 and forwarded to Test America Lab in Cedar Falls, Iowa. Boil soil and water samples were tested using Iowa OA1 and OA2 methods.

The lab test results confirm previous testing with all soil below Tier I action levels. The groundwater test results for MW1 and MW3 are below Tier I levels. MW2 was installed on the north property line near the original Bore Hole #3 and has OA1 Benzene Levels of 498 PPB which exceeds Tier I levels, however this Benzene level has been significantly reduced from the original 10/16/98 water sample of Benzene at 1300 PPB. The TEH levels in this area have reduced from 270,000 PPB to 10,400 PPB. See the appendix for the current analytical sample results and a table of analytical sample results for all groundwater tests taken on this site from 1998 to present.

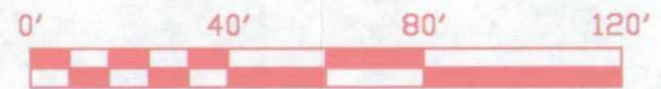
Also enclosed in the Appendix is a Site Plat showing monitoring well locations and groundwater flow direction. A table of measured Groundwater elevations is also enclosed. The groundwater elevation are consistent with the March 1999 elevations.

A copy of Chapter 16.20.030 and 16.20.10 of the Fort Dodge City Code that requires connection to the Municipal Water System in new developments and a listing of the IAC Sections covering private well construction within Webster County are included in the Appendix. New wells or reconstructed wells must be permitted by the County.

The second sampling event of this site is scheduled for November of 2000, at which time a more complete analysis of the remaining contamination conditions at site can be determined.



BENCH MARK  
 TOP OF NORTH RIM SANITARY MANHOLE  
 SOUTH OF THE INTERSECTION OF 5TH  
 AVE SOUTH AND SOUTH 25TH ST  
 ELEVATION-1110.38



LEGEND

— GUTTER LINES	⊗ GAS VALVE
■ INTAKE	⊗ WATER VALVE
○ MANHOLE	⊗ FIRE HYDRANT
○ PROPERTY CORNERS FOUND	△ SECTION CORNER
⊕ BOREHOLE	○ TREE
● PROPOSED MONITORING WELLS	— WATER LINE
	— SANITARY SEWER
	— STORM SEWER
	— GAS LINE
	— ELECTRICAL

MONITORING REPORT

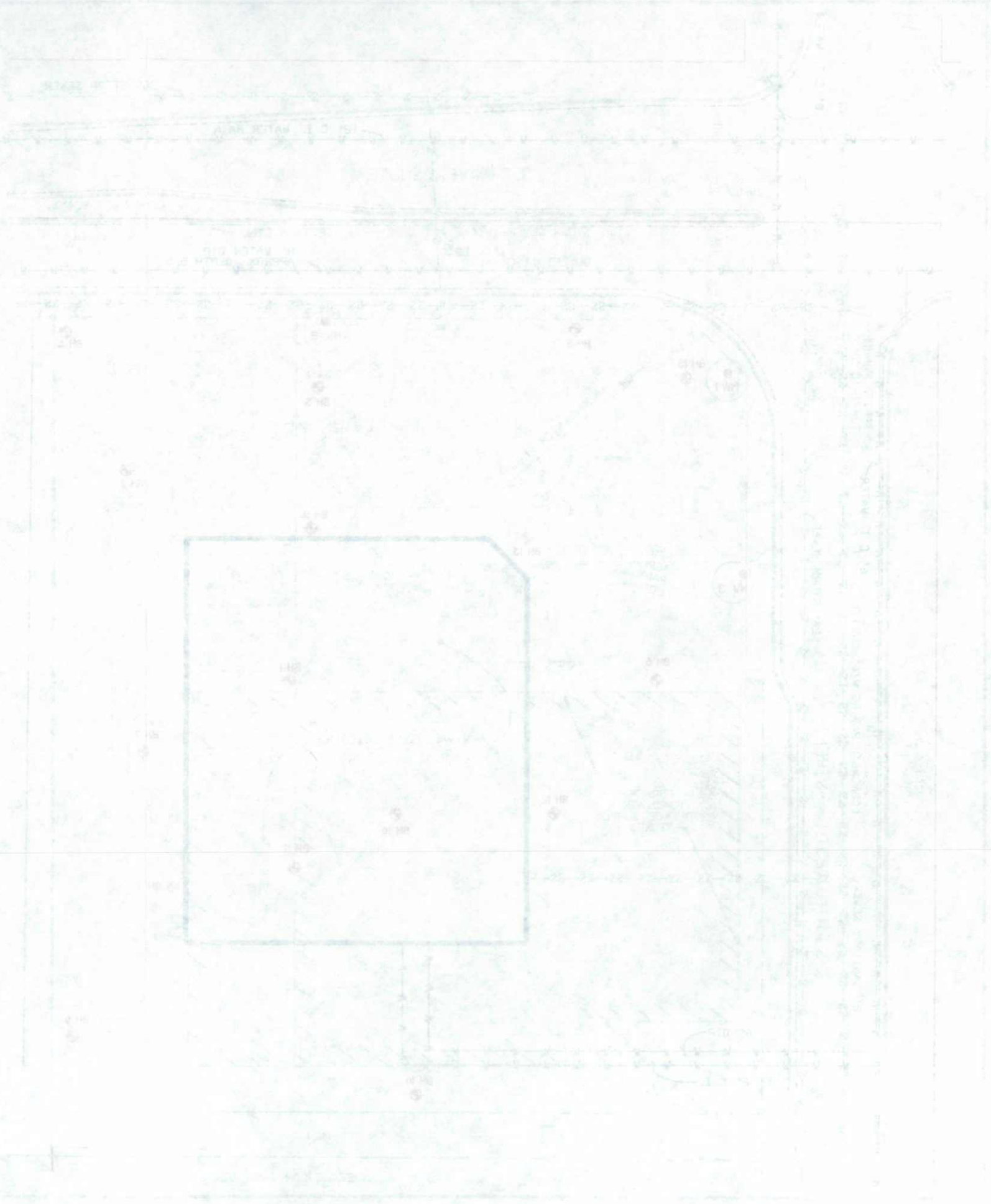


SITE MAP  
 WALGREEN STORE  
 5TH AVE SO. FT. DODGE, IOWA

DATE 2/00  
 REV 6/00  
 MER NO. 9390



MER ENGINEERING, INC.  
 ENGINEERING, ARCHITECTURE AND SURVEYING  
 100 REGENCY WEST COURT  
 FORT DODGE, IOWA  
 (515) 855-3635 E-MAIL: mereng@fdknet.net



**NEW MILLENNIUM / WALGREENS  
GROUNDWATER ANALYTICAL DATA (ug/L)**

BORING/ MW/ SAMPLE	SAMPLE DATE	ELEVATIONS (MSL)			BENZENE	TOLUENE	ETHYL- BENZENE	XYLENE	TEH DIESEL	TEH WASTE OIL	GASOLINE	TOTAL TEH
		GRADE	TOP PIPE	SWL *								
BH1	12/7/98	1111.5	1111.38	-	350	1100	1000	1600	-	-	-	-
BH2	12/7/98	1111.7	-	-	51	170	170	150	-	-	-	-
BH3	10/16/98	1111.3	-	1104.3	1300	750	1400	4100	<10,000	<4,000	270,000	270,000
BH4	12/21/98	1111.6	1111.53	1104.6	25	13	74	22	-	-	-	-
BH5	12/21/98	1111.0	-	1104.6	60	25	170	26	-	-	-	-
BH6	12/21/98	1110.9	1110.81	1104.2	<4.0	<4.0	16	4.7	63,000	<8,000	<20,000	63,000
BH7	12/21/98	1111.8	1111.65	1105.5	4.8	26	11	20	-	-	-	-
BH8	12/21/98	1111.7	1113.36	1107.7	33	7.1	5.0	7.4	<1,000	<400	8,300	8,300
BH9	12/21/98	1112.0	1111.98	1106.3	<2.0	<2.0	<2.0	<3.0	-	-	-	-
BH10	12/21/98	1111.2	1111.13	1105.7	<2.0	<2.0	<2.0	<3.0	-	-	-	-
BH11	3/24/99	1111.2	1111.11	1106.07	55	15	27	24	<400	<400	5,600	5,600
BH12	3/24/99	1111.3	1111.23	1105.53	11	<4	4.4	<6	67,000	<10,000	<10,000	67,000
BH13	3/24/99	1111.5	1111.43	1105.25	15	4.7	6.3	7.0	94,000	<16,000	<16,000	94,000
BH14	3/24/99	1111.9	1111.82	1105.55	95	85	580	300	<800	<400	14,000	14,000
BH15	3/24/99	1110.8	1110.68	1104.87	<4	5.0	<4	<6	25,000	<4,000	<4,000	25,000
BH16	5/4/99	-	-		<2.0	<2.0	<2.0	<3.0	-	-	-	-
MW1	5/25/00	1111.6	1111.38	1104.36	<5	<5	<5	<15	31,300	<380	<380	31,300
MW2	5/25/00	1111.3	1111.04	1104.93	498	41	264	306	<380	<380	10,400	10,400
MW3	5/25/00	1110.7	1110.44	1104.98	1.1	<1	<1	<3	933	<380	<380	933
IDNR CHAPTER 135 TIER 1 LEVELS GROUNDWATER INGESTION (POTENTIAL) * @ SAMPLING					290	7,300	3,700	73,000	75,000	40,000	-	75,000

**TABLE  
OF  
GROUNDWATER ELEVATIONS**

BORING WELL #	ELEVATION TOP PVC WELL PIPE	GROUNDWATER LEVELS MSL			
		CONSTRUCTED 5/10/2000			
			5/12/00	5/18/00	5/22/00
MW 1	1111.38	1104.29	1104.31	1104.37	1104.36
MW 2	1111.04	1104.94	1104.93	1104.93	1104.93
MW 3	1110.44	1104.96	1104.97	1105.01	1104.98



### SOIL BORING LOG & MONITORING WELL CONSTRUCTION DIAGRAM

Boring/Well # <b>MW 2</b>		Facility Name <b>WALGREENS</b>		Facility <b>2503 5TH Ave So.</b>			
				Address <b>Fort Dodge, IA</b>			
Boring Depth (Feet) x Diameter (Inches)				Drilling Method <b>SS, Split Spoon</b>			
Well Contractor Registration # <b>40019</b>				Logged by <b>L.L.S.</b>			
Date/Time Start <b>5/10/00, 12:30 PM</b>		Ground Surface Elevation (ASL)		TOP PVC <b>1111.04</b>		Lust Number	
Date/Time End <b>5/10/00, 1:15 PM</b>							
Depth in Feet	Well Construction Details	Blow Count <small>If Applicable</small>	Sample		PID/FID Reading	Rock Formations, Soil Color and Classifications, Observations (moisture, etc.)	
			No.	Type*			
0						0	
						Fill Material, Brown Silty Clay	4.0
-5						Silty Black Loam, Stiff-Moist	5.5
					6'	Brown/Grey Mottled Silty Clay Loam Stiff-Moist.	6.0
					7.5'		
						Grey/Green, Silty Clay Loam, Stiff-Moist, Discolored-Petro Odor.	9.5
-10						Grey/Brown Silty Clay Loam, Stiff-Moist, Slight Petro Odor.	10.5
						Brown Silty Clay, Till Stiff-Moist	13.5
-15						Grey Silty Clay, Till, Stiff-Moist Bottom of Boring.	15.0
* SS (split spoon) HS (hollow stem auger) CFA (Continuous Flight Auger)							
OBSERVATIONS		5/10/00	5/12/00	5/18/00	5/22/2000	5/25/2000	
WATER LEVELS		Level: Dry	1104.94	1104.93	1104.93	1104.93	
Static Water Level Symbol V		Time: 1:15					

### SOIL BORING LOG & MONITORING WELL CONSTRUCTION DIAGRAM

Boring/Well # <b>MW 3</b>		Facility Name <b>WALGREENS</b>		Facility 2503 5TH Ave So. Address Fort Dodge, IA			
Boring Depth (Feet) x Diameter (Inches)				Drilling Method <b>SS, Split Spoon</b>			
Well Contractor Registration # <b>40019</b>				Logged by <b>L.L.S.</b>			
Date/Time Start <b>5/10/00, 9:30 AM</b>		Ground Surface Elevation (ASL)		TOP PVC <b>1110.44</b>	Lust Number		
Date/Time End <b>5/10/00, 10:35 AM</b>							
Depth in Feet	Well Construction Details	Blow Count <small>If Applicable</small>	Sample No.    Type*		PID/FID Reading	Rock Formations, Soil Color and Classifications, Observations (moisture, etc.)	
0						0	
						Black Loam	0.5
						Limestone, Gravel, Dry	1.25
						Black Loam, Firm-Moist.	3.5
-5				6'-8'			
				7'-7.5'			
						Grey/Green Silty Clay, Till, Stiff-Moist Discolored, Slight Petro Odor	9.0
-10						Yel Brown, Silty Clay, Till, Mottled with Sand & Gravel @ 9.5' Stiff, Wet @ 10'	11.0
						Yel Brown to Grey Clay, Mottled. Till Hard, Moist	11.5
-15						Grey Clay, Till, Stiff-wet Bottom of Boring	15.0
* SS (split spoon) HS (hollow stem auger) CFA (Continuous Flight Auger)							
OBSERVATIONS		5/10/00	5/12/00	5/18/00	5/22/2000	5/25/2000	
WATER LEVELS		Level: Dry	1104.96	1104.97	1105.01	1104.98	
Static Water Level Symbol V		Time: 10:30					

MAY 25 2000

## ANALYTICAL REPORT

Paul Jacobson  
 MER ENGINEERING, INC.  
 109 Regency West Court  
 Fort Dodge, IA 50501

05/24/2000

Job Number: 00.05898

515-955-3635

Sample Number: 564387

Collected by: Lance Rossow

Collectors Phone No.: 515-955-3635

Job Description: NEW MILLENNIUM DEVELOPMENT  
 FORT DODGE, IOWA

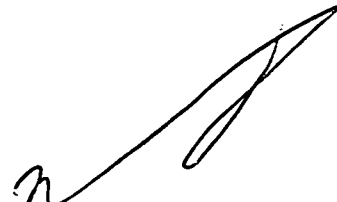
Date Taken: 05/10/2000

Date Received: 05/13/2000

Sample ID: MW1 7' Walgreen's

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Result</u>		<u>Date</u>	<u>Method</u>	<u>Quantitation</u>	
			<u>Flag</u>	<u>Analyst</u>			<u>Analyzed</u>	<u>Limit</u>
Extraction Prep, soil	complete			kak	05/17/2000	IOWA-0A2		SOIL
EXTRACTABLE HYDROCARBONS-SOIL								
Total Extractable Hydrocarbons	742	mg/kg		mpc	05/22/2000	IA-0A2/S-8015	100	SOIL
Diesel	742	mg/kg		mpc	05/22/2000	IA-0A2/S-8015	100	SOIL
Gasoline	<10	mg/kg		mpc	05/19/2000	IA-0A2/S-8015	10	SOIL
Motor Oil	<10	mg/kg		mpc	05/19/2000	IA-0A2/S-8015	10	SOIL
VOLATILES - BTEX (NONAQUEOUS)								
Benzene	<0.25	ug/g		sjg	05/16/2000	IA-0A1	0.25	SOIL
Toluene	<0.5	ug/g		sjg	05/16/2000	IA-0A1	0.5	SOIL
Ethylbenzene	<0.5	ug/g		sjg	05/16/2000	IA-0A1	0.5	SOIL
Xylenes, Total	<0.5	ug/g		sjg	05/16/2000	IA-0A1	0.5	SOIL

All results are calculated on a wet weight basis.



R. L. Bindert  
 Operations Manager  
 IA UST LAB CERTIFICATION NO. 0007

## ANALYTICAL REPORT

Paul Jacobson  
 MER ENGINEERING, INC.  
 109 Regency West Court  
 Fort Dodge, IA 50501

05/24/2000

Job Number: 00.05898

Sample Number: 564388

515-955-3635

Collected by: Lance Rossow

Collectors Phone No.: 515-955-3635

Job Description: NEW MILLENNIUM DEVELOPMENT  
 FORT DODGE, IOWA

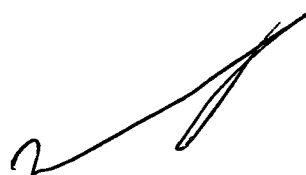
Date Taken: 05/10/2000

Date Received: 05/13/2000

Sample ID: MW2 7' Walgreen's

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Result</u>		<u>Analyst</u>	<u>Date Analyzed</u>	<u>Method</u>	<u>Quantitation</u>	
			<u>Flag</u>					<u>Limit</u>	<u>Matrix</u>
Extraction Prep, soil	complete				kak	05/17/2000	IOWA-0A2		SOIL
EXTRACTABLE HYDROCARBONS-SOIL									
Total Extractable Hydrocarbons	22.5	mg/kg			mpc	05/19/2000	IA-0A2/S-8015	10	SOIL
Diesel	<10	mg/kg			mpc	05/19/2000	IA-0A2/S-8015	10	SOIL
Gasoline	22.5	mg/kg			mpc	05/19/2000	IA-0A2/S-8015	10	SOIL
Motor Oil	<10	mg/kg			mpc	05/19/2000	IA-0A2/S-8015	10	SOIL
VOLATILES - BTEX (NONAQUEOUS)									
Benzene	<0.05	ug/g			mmk	05/19/2000	IA-0A1	0.05	SOIL
Toluene	<0.1	ug/g			mmk	05/19/2000	IA-0A1	0.1	SOIL
Ethylbenzene	<0.1	ug/g			mmk	05/19/2000	IA-0A1	0.1	SOIL
Xylenes, Total	<0.1	ug/g			mmk	05/19/2000	IA-0A1	0.1	SOIL

All results are calculated on a wet weight basis.



R. L. Bindert  
 Operations Manager  
 IA UST LAB CERTIFICATION NO. 0007

## ANALYTICAL REPORT

Paul Jacobson  
 MER ENGINEERING, INC.  
 109 Regency West Court  
 Fort Dodge, IA 50501  
 515-955-3635

05/24/2000

Job Number: 00.05898

Sample Number: 564389

Collected by: Lance Rossow

Collectors Phone No.: 515-955-3635

Job Description: NEW MILLENNIUM DEVELOPMENT  
 FORT DODGE, IOWA

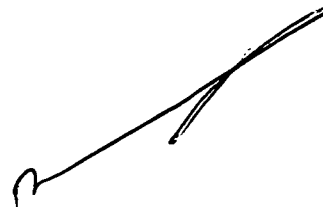
Date Taken: 05/10/2000

Date Received: 05/13/2000

Sample ID: MW3 7.5' Walgreen's

Analyte	Result	Units	Result		Date Analyzed	Method	Quantitation	
			Flag	Analyst			Limit	Matrix
Extraction Prep, soil	complete			kak	05/17/2000	IOWA-0A2		SOIL
EXTRACTABLE HYDROCARBONS-SOIL								
Total Extractable Hydrocarbons	971	mg/kg		mpc	05/22/2000	IA-0A2/S-8015	100	SOIL
Diesel	971	mg/kg		mpc	05/22/2000	IA-0A2/S-8015	100	SOIL
Gasoline	<10	mg/kg		mpc	05/19/2000	IA-0A2/S-8015	10	SOIL
Motor Oil	<10	mg/kg		mpc	05/19/2000	IA-0A2/S-8015	10	SOIL
VOLATILES - BTEX (NONAQUEOUS)								
Benzene	<0.25	ug/g		sjg	05/16/2000	IA-0A1	0.25	SOIL
Toluene	<0.5	ug/g		sjg	05/16/2000	IA-0A1	0.5	SOIL
Ethylbenzene	<0.5	ug/g		sjg	05/16/2000	IA-0A1	0.5	SOIL
Xylenes, Total	1.38	ug/g		sjg	05/16/2000	IA-0A1	0.5	SOIL

All results are calculated on a wet weight basis.



R. L. Bindert  
 Operations Manager  
 IA UST LAB CERTIFICATION NO. 0007

## ANALYTICAL REPORT

MER ENGINEERING, INC.  
109 Regency West Court  
Fort Dodge, IA 50501

515-955-3635

06/08/2000

Job Number: 00.06492

Sample Number: 566391

Collected by: J. Berns

Collectors Phone No.: 515-955-3635

Job Description: NEW MILLENNIUM DEVELOPMENT  
FORT DODGE, IOWA

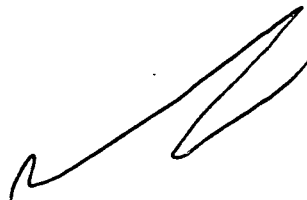
Date Taken: 05/25/2000

Date Received: 05/26/2000

Sample ID: MW1 Walgreens

Analyte	Result	Units	Result		Analyst	Date Analyzed	Method	Quantitation	
			Flag					Limit	Matrix
UST VOLATILE COMPOUNDS - 8260									
Benzene	<5.0	ug/L			dmd	06/01/2000	IA OA-1/8260B	5.0	Water
Toluene	<5.0	ug/L			dmd	06/01/2000	IA OA-1/8260B	5.0	Water
Ethylbenzene	<5.0	ug/L			dmd	06/01/2000	IA OA-1/8260B	5.0	Water
Xylenes	<15	ug/L			dmd	06/01/2000	IA OA-1/8260B	15	Water
MTBE	<5.0	ug/L			dmd	06/01/2000	IA OA-1/8260B	5.0	Water
Extraction Prep	COMPLETE				jdm	05/31/2000	IOWA-0A2		Water
EXTRACTABLE HYDROCARBONS-WATER									
Total Extractable Hydrocarbons	31,300	ug/L			mpc	06/06/2000	IA-0A2/S-8015	3,800	Water
Diesel	31,300	ug/L			mpc	06/06/2000	IA-0A2/S-8015	3,800	Water
Gasoline	<380	ug/L			mpc	06/05/2000	IA-0A2/S-8015	380	Water
Motor Oil	<380	ug/L			mpc	06/05/2000	IA-0A2/S-8015	380	Water
OA-1 Preservation pH	<2	units			dmd	05/31/2000	SW 9041A		Water

All results are calculated on a wet weight basis.



R. L. Bindert  
Operations Manager  
IA UST LAB CERTIFICATION NO. 0007

## ANALYTICAL REPORT

MER ENGINEERING, INC.  
109 Regency West Court  
Fort Dodge, IA 50501

515-955-3635

06/08/2000

Job Number: 00.06492

Sample Number: 566392

Collected by: J. Berns

Collectors Phone No.: 515-955-3635

Job Description: NEW MILLENNIUM DEVELOPMENT  
FORT DODGE, IOWA

Date Taken: 05/25/2000

Date Received: 05/26/2000

Sample ID: MW2 Walgreens

Analyte	Result	Units	Result		Date Analyzed	Method	Quantitation	
			Flag	Analyst			Limit	Matrix
UST VOLATILE COMPOUNDS - 8260								
Benzene	498	ug/L		dmd	05/31/2000	IA OA-1/8260B	1.0	Water
Toluene	41.4	ug/L		dmd	05/31/2000	IA OA-1/8260B	1.0	Water
Ethylbenzene	264	ug/L		dmd	05/31/2000	IA OA-1/8260B	1.0	Water
Xylenes	306	ug/L		dmd	05/31/2000	IA OA-1/8260B	3.0	Water
MTBE	<1.0	ug/L		dmd	05/31/2000	IA OA-1/8260B	1.0	Water
Extraction Prep	COMPLETE			jdm	05/31/2000	IOWA-OA2		Water
EXTRACTABLE HYDROCARBONS-WATER								
Total Extractable Hydrocarbons	10,400	ug/L		mpc	06/05/2000	IA-OA2/S-8015	380	Water
Diesel	<380	ug/L		mpc	06/05/2000	IA-OA2/S-8015	380	Water
Gasoline	10,400	ug/L		mpc	06/05/2000	IA-OA2/S-8015	380	Water
Motor Oil	<380	ug/L		mpc	06/05/2000	IA-OA2/S-8015	380	Water
OA-1 Preservation pH	<2	units		dmd	05/31/2000	SW 9041A		Water

All results are calculated on a wet weight basis.

  
 R. L. Bindert  
 Operations Manager  
 IA UST LAB CERTIFICATION NO. 0007

## ANALYTICAL REPORT

MER ENGINEERING, INC.  
109 Regency West Court  
Fort Dodge, IA 50501

515-955-3635

06/08/2000

Job Number: 00.06492

Sample Number: 566393

Collected by: J. Berns

Collectors Phone No.: 515-955-3635

Job Description: NEW MILLENNIUM DEVELOPMENT  
FORT DODGE, IOWA

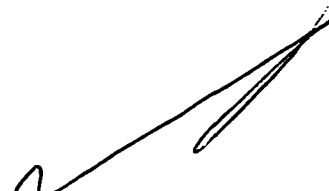
Date Taken: 05/25/2000

Date Received: 05/26/2000

Sample ID: MW3 Walgreens

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Result</u>		<u>Analyst</u>	<u>Date Analyzed</u>	<u>Method</u>	<u>Quantitation</u>	
			<u>Flag</u>					<u>Limit</u>	<u>Matrix</u>
UST VOLATILE COMPOUNDS - 8260									
Benzene	1.1	ug/L			dmd	05/31/2000	IA OA-1/8260B	1.0	Water
Toluene	<1.0	ug/L			dmd	05/31/2000	IA OA-1/8260B	1.0	Water
Ethylbenzene	<1.0	ug/L			dmd	05/31/2000	IA OA-1/8260B	1.0	Water
Xylenes	<3.0	ug/L			dmd	05/31/2000	IA OA-1/8260B	3.0	Water
MTBE	<1.0	ug/L			dmd	05/31/2000	IA OA-1/8260B	1.0	Water
Extraction Prep	COMPLETE				jdm	05/31/2000	IOWA-0A2		Water
EXTRACTABLE HYDROCARBONS-WATER									
Total Extractable Hydrocarbons	933	ug/L			mpc	06/05/2000	IA-0A2/S-8015	380	Water
Diesel	933	ug/L			mpc	06/05/2000	IA-0A2/S-8015	380	Water
Gasoline	<380	ug/L			mpc	06/05/2000	IA-0A2/S-8015	380	Water
Motor Oil	<380	ug/L			mpc	06/05/2000	IA-0A2/S-8015	380	Water
OA-1 Preservation pH	<2	units			dmd	05/31/2000	SW 9041A		Water

All results are calculated on a wet weight basis.

  
 R. L. Bindert  
 Operations Manager  
 IA UST LAB CERTIFICATION NO. 0007

## SUBDIVISIONS

Two lanes, no parking: commercial, highway, collector	31' B-B	9.5m
Two lanes, parking one side: residential	33' B-B	10.1m
Two lanes, parking one side: commercial, highway, collector	37' B-B	11.3m
Two lanes, parking both sides: residential	41' B-B	12.5m
Two lanes, parking both sides: commercial, highway, collector	45' B-B	13.7m
Four lanes, no parking, lighter traffic	45' B-B	13.7m
Four lanes, no parking: commercial, highway, heavy traffic, collector	49' B-B	14.9m

The categorization of a given proposed right-of-way shall be determined by the city.

(e) Private streets at the plan commission's and council's approval may be exempt from the above requirements. No private streets shall be allowed when connecting public streets and providing for through traffic or providing for a future extension of public streets. All private streets shall have maintenance provisions through the encompassing property owner's association acceptable to the city council. (Ord. 1912 § 2, 1997; Ord. 1641 Art. 5 § 1, 1984).

### 16.20.030 Sanitary, storm sewer and water systems.

(a) Where a public sanitary sewer is reasonably accessible, the sub-divider shall connect with such sanitary sewer, and shall provide connection to each lot in the subdivision.

(b) Where public sanitary sewers are not available, other approved facilities must be provided for the adequate disposal of sanitary wastes, which may require increase lot areas.

(c) Adequate provisions shall be made for the disposal of storm water.

~~WHERE A PUBLIC SANITARY SEWER IS REASONABLY ACCESSIBLE, THE SUB-DIVIDER SHALL CONNECT WITH SUCH SANITARY SEWER, AND SHALL PROVIDE CONNECTION TO EACH LOT IN THE SUBDIVISION.~~  
~~WHERE PUBLIC SANITARY SEWERS ARE NOT AVAILABLE, OTHER APPROVED FACILITIES MUST BE PROVIDED FOR THE ADEQUATE DISPOSAL OF SANITARY WASTES, WHICH MAY REQUIRE INCREASE LOT AREAS.~~  
~~(C) ADEQUATE PROVISIONS SHALL BE MADE FOR THE DISPOSAL OF STORM WATER.~~  
~~ORD. 1641 ART. 5 § 2, 1984.~~

### 16.20.040 Utility services.

Where utilities provide for gas, electric, cable television, telephone or other like services, the transmission of these services shall be placed under-

## Iowa Laws/Regulations

- A. **IOWA ADMINISTRATIVE CODE – 567 Chapter 38- Private Water Well Construction Permits- “a landowner or landowner’s agent shall not drill or construct a new private water well without first obtaining a well construction permit issued by the department or by a county board of supervisors.....”**
  
- B. **IOWA ADMINISTRATIVE CODE- 567 CHAPTER 39- Requirements for Properly Plugging Abandoned Wells  
“-“...providing a schedule and required procedures for the proper plugging of abandoned wells to protect the ground water by permanently sealing off contamination to individual aquifers.”**
  
- C. **IOWA ADMINISTRATIVE CODE- 567 CHAPTER 49- Non-public Water Wells- “...provisions contained herein apply to all nonpublic water wells constructed after the effective date of these rules and include existing water wells undergoing major rehabilitation or reconstruction**