7/7/16

JW

IDNR

Site Monitoring Report for Leaking Underground Storage Tank Sites

Iowa Department of Natural Resources

IDNR

SITE IDENTIFICATION

LUST No. 7LTV89 **UST Registration No.** 8811618

Site Name:	Woodbury Central School District
Site Address:	79 Deer Run Trail
City:	Climbing Hill

RESPONSIBLE PARTY IDENTIFICATION

Name:	Woodbury Central School District		Phone #:
Street:	PO Box AJ		
City:	Moville	State: IA	Zip Code: 51039

Type of Monitoring: [ ] Low Risk [X] High Risk: Interim [ ] Exempt Granular Bedrock

Is site reclassification recommended? Yes / (No) If yes, what classification? [ ] NAR [ ] low risk [ ] high risk

STATEMENT OF CERTIFICATION

I, Grant Nelson, Groundwater Professional Certification No. 2088, am familar with all applicable requirements of Iowa Code § 455B.474 and all rules and procedures adopted thereunder including, but not limited to, Chapter 567-135 and the Department of Natural Resources' Site Monitoring Report guidance. Based on my knowledge of those documents and information I have prepared and reviewed regarding this site, UST Registration No. 8811618, LUST No. 7LTV89, I certify that this document is complete and accurate as provided in 567 IAC 135.9(11)"c" and meets the applicable requirements of the Site Monitoring Report.

Print: Name/Address/Phone # of Certified Groundwater Professional

Grant Nelson
Northwest Environmental
PO Box 401
Alton, IA 51003

Signature:

Phone #: 712-756-4732

Date: 06/23/16

I certify that I have reviewed this document, appendices and attachments for submittal to the Iowa Department of Natural Resources.

Woodbury Central School District
Print: Name of Responsible Party

Signature - Responsible Party

Official IDNR Use Only

Date Received:	07/07/16	Comment Letter Date:	
Reviewer:		Approved:	Y / N

Version 2.51 - June 2002

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7/7/16

IDNR

Site Monitoring Report for Leaking Underground Storage Tank Sites

Iowa Department of Natural Resources

IDNR

SITE IDENTIFICATION

LUST No. 8LTU14 **UST Registration No.** 9217516

Site Name:	Former Benjamin Station
Site Address:	29 Deer Run Trail
City:	Climbing Hill

RESPONSIBLE PARTY IDENTIFICATION

Name:	Pat Benjamin		Phone #:
Street:	County Road K64		
City:	Climbing Hill	State: IA	Zip Code: 51015

Type of Monitoring: [ ] Low Risk [X] High Risk: Interim [ ] Exempt Granular Bedrock

Is site reclassification recommended? Yes (No) If yes, what classification? [ ] NAR [ ] low risk [ ] high risk

STATEMENT OF CERTIFICATION

I, Grant Nelson, Groundwater Professional Certification No. 2088, am familar with all applicable requirements of Iowa Code § 455B.474 and all rules and procedures adopted thereunder including, but not limited to, Chapter 567-135 and the Department of Natural Resources' Site Monitoring Report guidance. Based on my knowledge of those documents and information I have prepared and reviewed regarding this site, UST Registration No. 9217516, LUST No. 8LTU14, I certify that this document is complete and accurate as provided in 567 IAC 135.9(11)"c" and meets the applicable requirements of the Site Monitoring Report.

Print: Name/Address/Phone # of Certified Groundwater Professional

Grant Nelson
Northwest Environmental Services, Inc.
P.O. Box 401
Alton, IA 51003

Signature:

Phone #: (712) 756-4732

Date: 06/23/16

I certify that I have reviewed this document, appendices and attachments for submittal to the Iowa Department of Natural Resources.

Pat Benjamin
Print: Name of Responsible Party

Signature - Responsible Party

Official IDNR Use Only

Date Received:		Comment Letter Date:	
Reviewer:		Approved:	Y / N

Site Monitoring Report Checklist

This checklist is for Site Monitoring Reports prepared using Tier 2 software-version 2.51 and later, and applies to the following types of monitoring: **Low risk or High risk: Interim at non-bedrock and exempt granular bedrock sites.** Indicate with "NA" those sections of the report which are not included because they do not apply to site-specific conditions.

REPORT BODY:

Page Number

[X] Cover sheet ____ 1
[X] SMR checklist page ____ 2
[X] Receptor summary tables ____ 3,4,5
[X] Potential receptor summary ____ 6
[X] Receptor status change ____ 7
[X] Site reclassification ____ 7
[X] Groundwater analytical data ____ 8
[ ] Soil analytical data ____ 9
[ ] Soil gas analytical data ____ 10
[ ] Soil SSTL tables ____ 11
[X] Groundwater / Soil Leaching monitoring plan summary ____ 12
[ ] Soil gas monitoring plan summary ____ 13
[ ] Soil Gas Samples at Tier 2 Soil Sources ____ 15
[ ] Soil Gas Samples at Tier 2 Groundwater Sources ____ 16
[ ] Corrections to Tier 2 Deficiencies Included ____ 17

APPENDICES:

[X] 1. Evaluation of analytical data
[X] 2. Site plan map
[X] 3. Site vicinity map
[ ] 4. Soil summary corrective action map
[ ] 5. Soil contamination / soil gas map(s)
[X] 6. Groundwater summary corrective action map
[X] 7. Groundwater monitoring results map
[X] 8. Groundwater contamination map (from SMR software)
[X] 9. Groundwater flow direction map
[X] 10. Analytical data sheets
[ ] 11. Boring Logs / monitoring well construction diagrams
[X] 12. Documentation
[ ] 13. Best management practices (Initial SMR only)

[ ] Computer Disk

SMR, GROUNDWATER SOURCE, RECEPTOR SUMMARY TABLE

	B	T	E	X	D	W
SMR, SOIL GAS AT GW SOURCE, USER				--		--
SOIL GAS AT GW SOURCE, DATA	NS	NS	NS	--	NS	--

Type	Receptor	Tier 2 Risk	Last Risk	T2(*) or Computed Risk						Corr. Action Taken?	Corrective Action(s) Completed	Current Risk
				Group1				TEH				
				B	T	E	X	D	W			
DWW	DWW-9, Bank Well	H	H	H	N	N*	N*	H*	N	N		H
DWW	DWW-12, Church	H	L	N	N	N*	N*	L*	N	N		L
DWW	DWW-13, East Asso	H	L	N	N	N*	N*	N*	N	N		L

N: no action required, L: low risk, H: high risk, N/A: not applicable, NSC: No source concentration, N(SG): Passed soil gas at SMR.
PE: Tier 2 preliminary pathway evaluation result. *: Risk shown is Tier 2 risk classification. Not sufficient data for risk reclassification or risk reclassification criteria for N, L or H have not been met.

Corrective Actions:
1. Plugged drinking water wells
2. Plugged non-drinking water wells
3. Notified IDNR Water Supply Section
4. Notified designated county authority
5. Notified sanitary sewer public authority
6. Notified utility company-plastic water line
7. Relocated plastic water lines
8. Replaced plastic water lines
9. Established institutional controls
10. Conducted soil excavation
11. Cleared with soil gas
12. Zoning
13. For actual PWL, GW > 3 feet

SMR, SOIL LEACHING, RECEPTOR SUMMARY TABLE

	B	T	E	X	D	W
SMR, SOIL GAS AT SOIL SOURCE, USER				--		--
SOIL GAS AT SOIL SOURCE, DATA	NS	NS	NS	--	NS	--
SUBMERGED SOIL SOURCE	???	???	???	--	???	--

Type	Receptor	Tier 2 Risk	Last Risk	T2(*) or Computed Risk						Corr. Action Taken?	Corrective Action(s) Completed	Current Risk
				Group1				TEH				
				B	T	E	X	D	W			

For actual receptors, only Tier 2 risk shown for chemicals. For potential, reclassification uses groundwater in vicinity of the soil source.
N: No action required, or no receptors present for potential receptors. N(1): Soil source <=Tier 2 Default.
N(2): Modeled GW at Soil Source<=GW TL. N(3): Modeled GW at Receptor<=GW TL. N(4): Chemical not applicable for GW.
N/A: Chemical not applicable for soil. L: low risk. H: high risk. NSC: no source concentration. N(SG): passed soil gas at SMR.
PE: Tier 2 preliminary pathway evaluation result. *: Tier 2 risk classification result.
L or H: For PGWS, monitoring well(s) needed in vicinity of soil source to complete risk classification.

Corrective Actions:

1. Plugged drinking water wells
2. Plugged non-drinking water wells
3. Notified IDNR Water Supply Section
4. Notified designated county authority
5. Notified sanitary sewer public authority
6. Notified utility company-plastic water line
7. Relocated plastic water lines
8. Replaced plastic water lines
9. Established institutional controls
10. Conducted soil excavation
11. Cleared with soil gas
12. Zoning
13. For actual PWL, GW > 3 feet

SMR, SOIL VAPOR, SOIL TO PLASTIC WATER LINE, RECEPTOR SUMMARY TABLE

	B	T	E	D
SMR, SOIL GAS AT SOIL SOURCE, USER				
SOIL GAS AT SOIL SOURCE, DATA	NS	NS	NS	NS
SUBMERGED SOIL SOURCE	???	???	???	???

Type	Receptor	Tier 2 Risk	Last Risk	Tier 2 Risk Group1 B	Group1 T	Group1 E	TEH D	Corr. Action Taken?	Corrective Action(s) Completed	Current Risk

Tier 2 risk classification shown for chemicals.
N: no action required. L: low risk. H: high risk. N/A: chemical is not applicable. NSC: No source concentration. N(SG): Passed soil gas at SMR.
PE: Tier 2 preliminary evaluation result.

Corrective Actions:
1. Plugged drinking water wells
2. Plugged non-drinking water wells
3. Notified IDNR Water Supply Section
4. Notified designated county authority
5. Notified sanitary sewer public authority
6. Notified utility company-plastic water line
7. Relocated plastic water lines
8. Replaced plastic water lines
9. Established institutional controls
10. Conducted soil excavation
11. Cleared with soil gas
12. Zoning
13. For actual PWL, GW > 3 feet

Potential Receptor Summary **SMR,V-2.51, 8LTU14**

Surveys for new, removed, and replaced receptors must be conducted within the larger area of either 1) the receptor identification plume for the appropriate receptor type; or 2) the receptor-specific distance listed in brackets below.

Receptor questions	Yes/ No	Contact Name/Company Name/ Complete Address	Contact Phone #	Date
New drinking water well(s)? [1,000']	No	1) https://facilityexplorer.iowadnr.gov/ FacilityExplorer/Default.aspx , , 2) Ron Brandt Siouxland District Health Department 1014 Nebraksa Street Sioux City, Iowa, 51101	(712) 279-6119	04/20/2016 04/20/2016
New non-drinking water well(s)? [1,000']	No	1) https://facilityexplorer.iowadnr.gov/ FacilityExplorer/Default.aspx , , 2) Ron Brandt Siouxland District Health Department 1014 Nebraksa Street Sioux City, Iowa, 51101	(712) 279-6119	04/20/2016 04/20/2016
Plugged drinking water well(s)? [1,000']	No	1) https://facilityexplorer.iowadnr.gov/ FacilityExplorer/Default.aspx , , 2) Ron Brandt Siouxland District Health Department 1014 Nebraksa Street Sioux City, Iowa, 51101	(712) 279-6119	04/20/2016 04/20/2016
Plugged non-drinking water well(s)? [1,000']	No	1) https://facilityexplorer.iowadnr.gov/ FacilityExplorer/Default.aspx , , 2) Ron Brandt Siouxland District Health Department 1014 Nebraksa Street Sioux City, Iowa, 51101	(712) 279-6119	04/20/2016 04/20/2016
New plastic water lines(s)? [200']	No	Kyle Gates Woodbury County Secondary Roads 759 East Frontage Road Moviille, IA, 51039	(712) 873-3215	04/20/2016
Replaced or relocated plastic water line(s)? [200']	Yes	Kyle Gates Woodbury County Secondary Roads 759 East Frontage Road Moviille, IA, 51039	(712) 873-3215	04/20/2016
New sanitary sewer(s)? [200']	No	Kyle Gates Woodbury County Secondary Roads 759 East Frontage Road Moviille, IA, 51039	(712) 873-3215	04/20/2016
Replaced or relocated sanitary sewer(s)? [200']	No	Kyle Gates Woodbury County Secondary Roads 759 East Frontage Road Moviille, IA, 51039	(712) 873-3215	04/20/2016

Potential Receptor Summary **SMR,V-2.51, 8LTU14**

Surveys for new, removed, and replaced receptors must be conducted within the larger area of either 1) the receptor identification plume for the appropriate receptor type; or 2) the receptor-specific distance listed in brackets below.

Receptor questions	Yes/ No	Contact Name/Company Name/ Complete Address	Contact Phone #	Date
New building(s) with basements? [200']	No	Grant Nelson Northwest Environmental Services, Inc. P.O. Box 401 Alton, Iowa, 51003	(712) 756-4732	04/20/2016
Building(s) with basement(s) removed? [200']	No	Grant Nelson Northwest Environmental Services, Inc. P.O. Box 401 Alton, Iowa, 51003	(712) 756-4732	04/20/2016
Zoning changes? [200']	No	Peggy Napier Woobury County Planning and Zoning 620 Douglas Street Sioux City, Iowa, 51101	(712) 279-6557	04/20/2016

Receptors: Status change	**SMR,V-2.51, 8LTU14**
List and describe all receptors whose status has changed since the previous receptor evaluation (e.g. Private Well A was plugged/water supply notification form was sent to the proper authorities; new hourses were built; etc.). During late October early Novermber 2015 a section of water main between the Barn was installed to connect the Barn service up to the East Assocation Well in order to plug the DWW for "The Barn." On 04/05/2016 a 300' pedestrian survey was performed and the status of the receptors, except for the replaced water line, has not changed.	

Site Reclassification	**SMR,V-2.51, 8LTU14**
Should the site be reclassified? [X] No [ ] Yes If yes, the site should be reclassified as: [ ] High Risk [ ] Low Risk [ ] No Action Required	
If reclassification is recommended, provide the justification for reclassification and provide all necessary documentation in Appendix 12.	

SMR Groundwater Analytical Data (ug/L), V-2.51, 8LTU14

Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
B-1	07/23/1991	1,127.30	N	N	N	700.	1,985.	450.	3,345.	N	N	N	N
MW-2	07/25/1991	1,127.40	1,127.16	1,099.41	1,092.58	850.	1,090.	340.	1,410.	N	N	N	N
MW-2A	05/04/2000	1,127.30	1,126.58	1,099.50	1,095.33	225.	146.	344.	351.	N	N	N	N
MW-2A	03/28/2001	1,127.30	1,126.58	1,099.50	1,095.92	481.	35.	1,850.	454.	N	N	N	N
MW-2A	07/18/2002	1,127.30	1,126.58	1,099.50	1,097.04	185.	26.7	954.	283.	N	N	N	N
MW-2A	10/25/2003	1,127.30	1,126.58	1,099.50	1,096.26	152.	12.5	1,060.	144.	N	N	N	N
MW-2A	07/10/2004	1,127.30	1,126.58	1,099.50	1,097.34	51.5	13.6	398.	164.	N	N	N	N
MW-2A	12/12/2009	1,127.30	1,126.58	1,099.50	1,098.27	12.8	<1.	383.	143.	1,910.	<300.	N	N
MW-2A	10/05/2011	1,127.30	1,126.58	1,099.50	1,100.11	2.98	<1.	118.	113.	1,320.	<300.	N	N
MW-2A	08/29/2012	1,127.30	1,126.58	1,099.50	1,098.62	<2.	3.1	27.1	39.3	637.	338.	N	N
MW-2A	09/23/2013	1,127.30	1,126.58	1,099.50	1,097.38	1.07	<1.	16.8	<3.	811.	<300.	N	N
MW-2A	10/11/2014	1,127.30	1,126.58	1,099.50	1,101.31	<0.5	<1.	23.1	127.	414.	538.	N	N
MW-6	09/23/1991	1,127.40	1,127.11	1,099.36	1,092.51	<1.	8.	<1.	11.	N	N	N	N
MW-6	04/22/2010	1,127.70	1,127.41	1,099.36	1,100.14	<1.	<1.	<1.	<3.	<333.	<333.	N	N
MW-6	10/11/2014	1,127.70	1,127.41	1,099.36	1,101.72	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-6	04/05/2016	1,127.70	1,127.41	1,099.36	1,104.08	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-16	12/18/1991	1,127.70	1,127.48	1,063.73	1,092.28	5.	21.	<2.	2.	N	N	N	N
MW-16	01/02/1992	1,127.70	1,127.48	1,063.73	1,092.28	8.	4.	<2.	2.	N	N	N	N
MW-16	05/03/2000	1,127.70	1,127.48	1,063.73	1,095.88	<1.	<1.	<1.	<3.	N	N	N	N
MW-16	12/12/2009	1,127.80	1,127.52	1,063.73	1,098.40	<1.	<1.	<1.	<3.	<300.	313.	N	N
MW-16	04/29/2010	1,127.80	1,127.52	1,063.73	1,099.79	1.58	<1.	<1.	<3.	303.	409.	N	N
MW-16	10/05/2011	1,127.80	1,127.52	1,063.73	1,100.23	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-16	08/29/2012	1,127.80	1,127.52	1,063.73	1,098.53	<2.	<2.	<2.	<3.	<300.	<300.	N	N
MW-16	09/23/2013	1,127.80	1,127.52	1,063.73	1,097.56	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
MW-16	09/26/2014	1,127.80	1,127.52	1,063.73	1,102.11	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-16	04/05/2016	1,127.80	1,127.52	1,063.73	1,104.92	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-21	01/18/1993	1,127.40	1,126.66	1,101.35	1,094.50	755.	845.	1,242.	4,052.	N	N	N	N
MW-21	12/07/1993	1,127.40	1,126.66	1,101.40	1,095.63	<1.	3.	<1.	3.	N	N	N	N
MW-21A	05/04/2000	1,127.40	1,126.66	1,099.60	1,095.80	1.1	<1.	9.2	<3.	N	N	N	N
MW-21A	03/28/2001	1,127.40	1,126.66	1,099.60	1,095.89	1.2	<1.	2.	<3.	N	N	N	N
MW-21A	07/18/2002	1,127.40	1,126.66	1,099.60	1,097.04	<1.	<1.	<1.	<3.	N	N	N	N
MW-21A	03/18/2003	1,127.40	1,126.66	1,101.40	N	189.	23.4	896.	330.	4,010.	<380.	N	N
MW-21A	12/12/2009	1,127.40	1,126.66	1,099.60	1,098.49	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-21A	10/05/2011	1,127.40	1,126.66	1,099.60	1,100.22	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-21A	08/29/2012	1,127.40	1,126.66	1,099.60	1,098.61	<2.	<2.	<2.	<3.	<300.	569.	N	N
MW-21A	09/23/2013	1,127.40	1,126.66	1,099.60	1,097.42	<0.5	<1.	<1.	<3.	<300.	569.	N	N
MW-21A	10/11/2014	1,127.40	1,126.66	1,099.60	1,101.36	<0.5	<1.	<1.	<3.	<278.	<278.	N	N

SMR Groundwater Analytical Data (ug/L), V-2.51, 8LTU14

Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
MW-21A	04/05/2016	1,127.40	1,126.66	1,099.60	1,104.57	0.512	<1.	<1.	<3.	<278.	<278.	N	N
MW-103	01/13/1994	1,133.40	1,132.99	1,105.40	1,095.40	<2.	81.	22.	170.	N	N	N	N
MW-103	07/16/1997	1,133.40	1,132.99	1,105.40	1,100.97	<1.	<1.	<1.	<1.	N	N	N	N
MW-103	09/16/1997	1,133.40	1,132.99	1,105.40	1,100.65	N	N	N	N	<100.	<100.	N	N
MW-103	03/19/2003	1,133.40	1,132.99	1,105.40	1,099.69	<1.	<1.	<1.	<3.	<380.	<380.	N	N
MW-103	10/05/2011	1,133.40	1,132.99	1,105.40	1,104.98	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-103	08/29/2012	1,133.40	1,132.99	1,105.40	1,103.33	<2.	<2.	<2.	<3.	<300.	<300.	N	N
MW-103	09/23/2013	1,133.40	1,132.99	1,105.40	1,101.99	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
MW-103	09/26/2014	1,133.40	1,132.99	1,105.40	1,105.70	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-103	04/05/2016	1,133.40	1,132.99	1,105.40	1,108.76	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-117	12/01/1995	1,129.90	1,129.65	1,106.90	1,098.99	7,900.	890.	1,500.	3,400.	N	N	N	N
MW-117	07/16/1997	1,129.90	1,129.65	1,106.90	1,101.05	7,000.	221.	1,300.	5,130.	N	N	N	N
MW-117	09/16/1997	1,129.90	1,129.65	1,106.90	1,100.25	N	N	N	N	88,000.	<100.	N	N
MW-117	12/02/1998	1,129.90	1,129.65	1,106.90	1,100.84	8,890.	304.	1,350.	4,120.	109,000.	<100.	N	N
MW-117	07/09/1999	1,129.90	1,129.65	1,106.90	1,101.46	12,500.	98.5	1,590.	5,110.	<100.	<100.	N	N
MW-117	12/16/1999	1,129.90	1,129.65	1,106.90	1,100.79	13,300.	119.	1,790.	5,090.	<100.	<100.	N	N
MW-117	07/11/2000	1,129.90	1,129.65	1,106.90	1,099.54	12,700.	286.	2,220.	6,160.	45,600.	<100.	N	N
MW-117	01/24/2001	1,129.90	1,129.65	1,106.90	1,098.71	17,600.	775.	2,730.	7,340.	<100.	<100.	N	N
MW-117	07/26/2001	1,129.90	1,129.65	1,106.90	1,100.63	14,100.	584.	2,170.	4,950.	<100.	<100.	N	N
MW-117	02/20/2002	1,129.90	1,129.65	1,106.90	1,099.25	11,000.	1,120.	2,110.	5,130.	<100.	<100.	N	N
MW-117	08/27/2002	1,129.90	1,129.65	1,106.90	1,100.82	8,490.	1,580.	1,670.	4,300.	35,200.	3,160.	N	N
MW-117	03/19/2003	1,129.90	1,129.65	1,106.90	1,099.74	7,980.	1,240.	1,830.	4,780.	30,100.	3,010.	N	N
MW-117	01/20/2004	1,129.90	1,129.65	1,106.90	1,099.45	7,630.	2,250.	2,260.	6,280.	31,400.	3,040.	N	N
MW-117	12/08/2004	1,129.90	1,129.65	1,106.90	1,100.04	7,490.	3,190.	2,560.	6,580.	31,800.	2,970.	N	N
MW-117	08/10/2005	1,129.90	1,129.65	1,106.90	1,100.10	8,500.	4,900.	2,300.	7,000.	3,500.	5,300.	N	N
MW-117	08/15/2006	1,129.90	1,129.65	1,106.90	1,098.56	8,190.	6,900.	2,920.	8,660.	20,000.	1,540.	N	N
MW-117	12/16/2009	1,129.90	1,129.65	1,106.90	1,102.41	5,120.	9,180.	3,210.	10,400.	33,500.	3,420.	N	N
MW-117	10/05/2011	1,129.90	1,129.65	1,106.90	1,104.94	8,260.	24,600.	3,060.	10,900.	44,000.	6,820.	N	N
MW-117	08/29/2012	1,129.90	1,129.65	1,106.90	1,103.54	8,240.	34,000.	3,290.	11,300.	22,600.	3,340.	N	N
MW-117	09/23/2013	1,129.90	1,129.65	1,106.90	1,102.27	11,800.	46,700.	3,990.	14,900.	2,980.	513.	N	N
MW-117	09/26/2014	1,129.90	1,129.65	1,106.90	1,106.17	8,920.	28,400.	2,460.	9,410.	<278.	<278.	N	N
MW-117	04/05/2016	1,129.90	1,129.65	1,106.90	1,109.62	8,390.	29,800.	3,740.	12,100.	<278.	<278.	N	N
MW-20	02/20/1992	1,129.10	1,128.80	1,097.05	1,094.57	181.	<2.	<2.	1,882.	N	N	N	N
MW-118	12/01/1995	1,129.10	1,128.94	1,106.10	1,098.15	23.	110.	41.	1,300.	N	N	N	N
MW-118	07/16/1997	1,129.10	1,128.94	1,106.10	1,100.21	68.	47.	13.	143.	N	N	N	N
MW-118	09/16/1997	1,129.10	1,128.94	1,106.10	1,099.78	N	N	N	N	4,000.	<100.	N	N
MW-118	12/02/1998	1,129.10	1,128.94	1,106.10	1,099.01	10.	17.7	3.	30.	1,920.	<100.	N	N

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Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
MW-118	07/08/1999	1,129.10	1,128.94	1,106.10	1,100.70	4.4	<1.	<1.	39.5	<100.	<100.	N	N
MW-118	12/16/1999	1,129.10	1,128.94	1,106.10	1,099.80	5.7	1.2	<1.	64.9	<100.	<100.	N	N
MW-118	07/11/2000	1,129.10	1,128.94	1,106.10	1,098.39	5.	1.9	<1.	68.4	<100.	<100.	N	N
MW-118	01/24/2001	1,129.10	1,128.94	1,106.10	1,097.78	5.8	1.9	<1.	74.1	<100.	<100.	N	N
MW-118	07/26/2001	1,129.10	1,128.94	1,106.10	1,099.85	32.	13.	3.	56.	1,600.	<100.	N	N
MW-118	02/20/2002	1,129.10	1,128.94	1,106.10	1,098.27	38.	16.	4.	56.	<100.	<100.	N	N
MW-118	08/27/2002	1,129.10	1,128.94	1,106.10	1,100.05	3.4	<2.	15.1	40.6	1,530.	<380.	N	N
MW-118	03/19/2003	1,129.10	1,128.94	1,106.10	1,098.77	<5.	<5.	<5.	47.	3,240.	<380.	N	N
MW-118	01/20/2004	1,129.10	1,128.94	1,106.10	1,098.49	2.5	1.3	<1.	39.8	2,120.	<380.	N	N
MW-118	12/08/2004	1,129.10	1,128.94	1,106.10	1,099.13	4.2	17.6	3.2	49.6	1,540.	<380.	N	N
MW-118	08/10/2005	1,129.10	1,128.94	1,106.10	1,099.34	1.1	<5.	<1.	11.	<100.	<250.	N	N
MW-118	12/12/2009	1,129.10	1,128.94	1,106.10	1,101.60	1.31	<1.	<1.	<3.	350.	<300.	N	N
MW-118	10/05/2011	1,129.10	1,128.94	1,106.10	1,103.92	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-118	08/29/2012	1,129.10	1,128.94	1,106.10	1,102.42	<2.	2.02	<2.	<3.	<300.	<300.	N	N
MW-118	09/23/2013	1,129.10	1,128.94	1,106.10	1,101.13	<0.5	<1.	<1.	<3.	<288.	289.	N	N
MW-118	09/26/2014	1,129.10	1,128.94	1,105.17	1,101.13	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-118	04/05/2016	1,129.10	1,128.94	1,105.17	1,108.52	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-119	12/01/1995	1,128.30	1,127.93	1,105.30	1,097.21	50.	98.	120.	440.	N	N	N	N
MW-119	09/16/1997	1,128.30	1,127.93	1,105.30	1,098.83	N	N	N	N	<100.	<100.	N	N
MW-119	12/02/1998	1,128.30	1,127.93	1,105.30	1,098.83	161.	84.5	416.	660.	26,100.	<100.	N	N
MW-119	07/08/1999	1,128.30	1,127.93	1,105.30	1,099.68	215.	111.	384.	570.	<100.	<100.	N	N
MW-119R	08/15/2001	1,128.26	1,127.59	1,107.59	1,098.63	47.	52.	91.	312.	<100.	<100.	N	N
MW-119R	02/20/2002	1,128.26	1,127.59	1,107.59	1,097.16	224.	69.	330.	421.	10,800.	<100.	N	N
MW-119R	08/27/2002	1,128.26	1,127.59	1,107.59	1,099.00	34.6	10.9	44.6	71.8	3,560.	<380.	N	N
MW-119R	03/19/2003	1,128.26	1,127.59	1,107.59	1,097.65	80.	24.	144.	158.	7,660.	<380.	N	N
MW-119R	01/20/2004	1,128.26	1,127.59	1,107.59	1,097.36	205.	36.8	345.	278.	12,100.	400.	N	N
MW-119R	12/08/2004	1,128.26	1,127.59	1,107.59	1,098.00	110.	27.8	150.	130.	6,160.	<380.	N	N
MW-119R	08/10/2005	1,128.26	1,127.59	1,107.59	1,098.33	28.	<25.	36.	35.	<100.	260.	N	N
MW-119R	08/15/2006	1,128.26	1,127.59	1,107.59	1,096.81	87.	41.7	155.	205.	2,790.	<300.	N	N
MW-119R	04/22/2010	1,128.26	1,127.59	1,107.59	1,101.06	126.	216.	549.	2,050.	26,500.	1,860.	N	N
MW-119R	10/05/2011	1,128.26	1,127.59	1,107.59	1,102.13	163.	186.	670.	2,260.	51,900.	3,910.	N	N
MW-119R	08/29/2012	1,128.26	1,127.59	1,107.59	1,100.61	178.	213.	899.	2,520.	24,500.	1,560.	N	N
MW-119R	09/23/2013	1,128.26	1,127.59	1,107.59	1,099.63	137.	39.7	485.	604.	8,290.	1,030.	N	N
MW-119R	09/26/2014	1,128.26	1,127.59	1,103.44	1,099.63	84.9	74.2	503.	2,090.	21,800.	<278.	N	N
MW-119R	04/05/2016	1,128.26	1,127.59	1,103.44	1,106.87	154.	28.8	1,100.	1,660.	<278.	3,190.	N	N
MW-120	12/01/1995	1,127.90	1,127.59	1,104.90	1,096.86	9.	8.	7.	20.	N	N	N	N
MW-120	07/16/1997	1,127.90	1,127.59	1,104.90	1,098.86	8.	18.	7.	18.	N	N	N	N

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Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
MW-120	09/16/1997	1,127.90	1,127.59	1,104.90	1,098.34	N	N	N	N	600.	<100.	N	N
MW-120	12/02/1998	1,127.90	1,127.59	1,104.90	1,098.39	3.1	12.4	4.5	8.2	1,300.	<100.	N	N
MW-120	08/28/2002	1,127.90	1,127.59	1,104.90	1,098.54	<2.	<2.	<2.	<3.	<380.	<380.	N	N
MW-120	03/19/2003	1,127.90	1,127.59	1,104.90	1,097.20	<1.	<1.	2.6	<3.	430.	<380.	N	N
MW-120	01/20/2004	1,127.90	1,127.59	1,104.90	1,096.90	<1.	<1.	3.8	<3.	662.	<380.	N	N
MW-120	12/08/2004	1,127.90	1,127.59	1,104.90	1,097.53	<2.	<2.	<2.	<3.	<380.	<380.	N	N
MW-120	08/10/2005	1,127.90	1,127.59	1,104.90	1,097.91	<1.	<5.	<1.	<3.	<100.	<250.	N	N
MW-120	12/12/2009	1,127.90	1,127.59	1,104.90	1,099.87	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-120	10/05/2011	1,127.90	1,127.59	1,104.90	1,101.85	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-120	08/29/2012	1,127.90	1,127.59	1,104.90	1,100.27	<2.	<2.	<2.	<3.	<300.	<300.	N	N
MW-120	09/23/2013	1,127.90	1,127.59	1,104.90	1,099.05	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
MW-120	09/26/2014	1,127.90	1,127.59	1,104.90	1,103.08	<0.5	<1.	<1.	<3.	302.	<278.	N	N
MW-120	04/05/2016	1,127.90	1,127.59	1,104.90	1,106.36	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-122	07/09/1999	1,131.30	1,130.78	1,111.30	1,101.00	270.	1.1	123.	252.	<100.	<100.	N	N
MW-122	12/16/1999	1,131.80	1,130.78	1,111.30	1,100.43	107.	<1.	2.	5.1	<100.	<100.	N	N
MW-122	07/11/2000	1,131.80	1,130.78	1,111.30	1,099.18	147.	<1.	2.	1.9	2,600.	<100.	N	N
MW-122	01/24/2001	1,131.80	1,130.78	1,111.30	1,098.29	91.	<1.	<1.	<1.	<100.	<100.	N	N
MW-122	07/26/2001	1,131.80	1,130.78	1,111.30	1,100.15	53.	6.	1.	2.	800.	<100.	N	N
MW-122	02/20/2002	1,131.80	1,130.78	1,111.30	1,098.87	126.	21.	5.	11.	<100.	<100.	N	N
MW-122	08/27/2002	1,131.80	1,130.78	1,111.30	1,100.23	83.8	<2.	<2.	4.4	1,380.	<380.	N	N
MW-122	03/19/2003	1,131.80	1,130.78	1,111.30	1,099.39	65.5	<1.	<1.	<3.	929.	<380.	N	N
MW-122	01/20/2004	1,131.80	1,130.78	1,111.30	1,099.12	69.1	<1.	<1.	<3.	1,660.	<380.	N	N
MW-122	12/08/2004	1,131.80	1,130.78	1,111.30	1,099.71	96.	5.82	<2.	6.16	1,720.	<380.	N	N
MW-122	08/10/2005	1,131.80	1,130.78	1,111.30	1,099.66	58.	<5.	<1.	<3.	110.	<250.	N	N
MW-122	12/16/2009	1,131.80	1,130.78	1,111.30	1,102.09	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-122	10/05/2011	1,131.80	1,130.78	1,111.30	1,104.65	<1.	<1.	<1.	<3.	<300.	<300.	N	N
MW-122	08/29/2012	1,131.80	1,130.78	1,111.30	1,103.13	<2.	<2.	<2.	<3.	<300.	<300.	N	N
MW-122	09/23/2013	1,131.80	1,130.78	1,111.30	1,101.83	<0.5	<1.	<1.	<3.	<288.	305.	N	N
MW-122	09/26/2014	1,131.80	1,130.78	1,111.30	1,105.69	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
MW-122	04/05/2016	1,131.80	1,130.78	1,111.30	1,108.15	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Kamm Well	08/12/1991	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<1.~~	~~N~~	~~N~~	N	N
DWW-1	07/09/1999	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<1.~~	~~<100.~~	~~<100.~~	~~N~~	N
DWW-1	12/16/1999	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<1.~~	~~<100.~~	~~<100.~~	~~N~~	N
DWW-1	07/11/2000	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<1.~~	~~<100.~~	~~<100.~~	~~N~~	N
DWW-1	01/23/2001	N	N	N	N	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<0.5~~	~~<100.~~	~~<100.~~	~~N~~	N
DWW-1	07/27/2001	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<1.~~	~~<100.~~	~~<100.~~	~~N~~	N
DWW-1	02/18/2002	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<1.~~	~~<100.~~	~~<100.~~	~~N~~	N

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Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
DWW-1	08/29/2002	N	N	N	N	<2.	<2.	<2.	<3.	<380.	<380.	N	N
DWW-1	03/20/2003	N	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
DWW-1	01/20/2004	N	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
DWW-1	12/07/2004	N	N	N	N	<2.	<2.	<2.	<3.	<380.	<380.	N	N
Garvey Well	12/12/2009	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Garvey Well	10/12/2011	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
DWW-3C	03/20/2003	N	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
Benjamin Wel	12/12/2009	1,132.80	1,134.35	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Benjamin Wel	10/05/2011	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Benjamin Wel	03/21/2012	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Benjamin Wel	08/29/2012	N	N	N	N	<2.	<2.	<2.	<3.	<300.	<300.	N	N
Benjamin Wel	03/19/2013	N	N	N	N	<0.5	<1.	<1.	<3.	297.	<288.	N	N
Benjamin Wel	09/23/2013	N	N	N	N	<0.5	<1.	<1.	<3.	<300.	<300.	N	N
Benjamin Wel	03/06/2014	N	N	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
Benjamin Wel	09/26/2014	N	N	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Benjamin Wel	04/01/2015	N	N	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Benjamin Wel	04/05/2016	N	N	N	N	<0.5	<1.	<1.	<3.	<306.	<306.	N	N
Lloyd Well	07/24/1991	1,128.70	N	N	N	<1.	<1.	<1.	<1.	N	N	N	N
Lloyd Well	01/16/1992	1,128.70	N	N	N	<2.	<2.	<2.	<2.	N	N	N	N
Lloyd Well	01/18/1993	1,128.70	N	N	N	<2.	<2.	<2.	<2.	N	N	N	N
Lloyd Well	10/26/1993	1,128.70	N	N	N	<2.	<2.	<2.	<2.	N	N	N	N
Lloyd Well	06/01/1994	1,128.70	N	N	N	<2.	<2.	<2.	<2.	N	N	N	N
Lloyd Well	06/29/1994	1,128.70	N	N	N	<2.	<2.	<2.	<2.	N	N	N	N
Lloyd Well	10/03/1994	1,128.70	N	N	1,093.70	<2.	<2.	<2.	<5.	N	N	N	N
Lloyd Well	12/20/1994	1,128.70	N	N	N	<2.	<2.	<2.	<5.	N	N	N	N
Lloyd Well	04/26/1995	1,128.70	N	N	N	<2.	<2.	<2.	<5.	N	N	N	N
Lloyd Well	07/24/1995	1,128.70	N	N	N	<2.	<2.	<2.	<4.	N	N	N	N
Lloyd Well	10/09/1995	1,128.70	N	N	N	<2.	<2.	<2.	<4.	N	N	N	N
Lloyd Well	12/26/1995	1,128.70	N	N	N	<2.	<2.	<2.	<5.	N	N	N	N
Lloyd Well	03/21/1996	1,128.70	N	N	N	<2.	<2.	<2.	<5.	N	N	N	N
Lloyd Well	07/01/1996	1,128.70	N	N	N	<2.	<2.	<2.	<5.	N	N	N	N
Lloyd Well	09/28/1996	1,128.70	N	N	N	<2.	<2.	<2.	<5.	N	N	N	N
Lloyd Well	03/31/1997	1,128.70	N	N	N	<2.	<2.	<2.	<1.	N	N	N	N
Lloyd Well	07/10/1997	1,128.70	N	N	N	<1.	<1.	<1.	<1.	N	N	N	N
Lloyd Well	10/02/1997	1,128.70	N	N	N	<1.	<1.	<1.	<1.	N	N	N	N
Lloyd Well	01/13/1998	1,128.70	N	N	N	<1.	<1.	<1.	<1.	N	N	N	N
Lloyd Well	05/06/1998	1,128.70	N	N	N	<1.	<1.	<1.	<1.	N	N	N	N

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Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
Lloyd Well	08/03/1998	1,128.70	N	N	N	<1.	<1.	<1.	<1.	N	N	N	N
Lloyd Well	12/28/1998	1,128.70	N	N	N	<1.	<1.	<1.	<1.	N	N	N	N
DWW-7	07/09/1999	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-7	12/16/1999	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
Lloyd Well	05/04/2000	1,128.70	N	N	N	<1.	<1.	<1.	<3.	N	N	N	N
DWW-7	07/11/2000	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-7	01/23/2001	N	N	N	N	<0.5	<0.5	<0.5	<0.5	<100.	<100.	N	N
DWW-7	07/27/2001	N	N	N	N	1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-7	02/18/2002	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-7	08/29/2002	1,128.70	N	N	N	<2.	<2.	<2.	<3.	<380.	<380.	N	N
DWW-7	03/18/2003	1,128.70	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
DWW-7	01/20/2004	1,128.70	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
Lloyd Well	07/10/2004	1,128.70	N	N	N	<1.	<1.	<1.	<3.	N	N	N	N
DWW-7	12/07/2004	1,128.70	N	N	N	<2.	<2.	<2.	<3.	<380.	<380.	N	N
Lloyd Well	12/12/2009	1,127.90	1,128.70	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Lloyd Well	10/05/2011	1,127.90	1,128.70	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Lloyd Well	03/21/2012	1,127.90	1,128.70	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Lloyd Well	08/29/2012	1,127.90	1,128.70	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Lloyd Well	03/19/2013	1,127.90	1,128.70	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
Lloyd Well	09/23/2013	1,127.90	1,128.70	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
Lloyd Well	03/06/2014	1,127.90	1,128.70	N	N	<0.5	<1.	<1.	<3.	<294.	<294.	N	N
Lloyd Well	09/26/2014	1,127.90	1,128.70	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Lloyd Well	04/01/2015	1,127.90	1,128.70	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Lloyd Well	04/05/2016	1,127.90	1,128.70	N	N	<0.5	<1.	<1.	<3.	<306.	<306.	N	N
Bank Well	08/12/1991	N	N	N	N	<1.	<1.	<1.	<1.	N	N	N	N
DWW-9	07/09/1999	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-9	12/16/1999	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-9	07/11/2000	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-9	01/23/2001	N	N	N	N	<0.5	<0.5	<0.5	<0.5	<100.	<100.	N	N
DWW-9	07/27/2001	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-9	02/18/2002	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-9	08/29/2002	N	N	N	N	<2.	12.6	<2.	<3.	<380.	<380.	N	N
DWW-9	03/20/2003	N	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
DWW-9	01/20/2004	N	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
Bank Well	12/12/2009	1,127.60	1,127.58	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Bank Well	04/22/2010	1,127.60	1,127.58	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Bank Well	10/05/2011	1,127.60	1,127.58	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Bank Well	03/21/2012	1,127.60	1,127.58	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N

SMR Groundwater Analytical Data (ug/L), V-2.51, 8LTU14

Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
Bank Well	08/29/2012	1,127.60	1,127.58	N	N	<2.	<2.	<2.	<3.	<300.	<300.	N	N
Bank Well	03/19/2013	1,127.60	1,127.58	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
Bank Well	09/23/2013	1,127.60	1,127.58	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
Bank Well	03/06/2014	1,127.60	1,127.58	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Bank Well	09/26/2014	1,127.60	1,127.58	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Bank Well	04/01/2015	1,127.60	1,127.58	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Bank Well	04/21/2015	1,127.60	1,127.58	N	N	N	N	N	N	<300.	<300.	N	N
Bank Well	04/05/2016	1,127.60	1,127.58	N	N	<0.5	<1.	<1.	<3.	<303.	<303.	N	N
DWW-12	07/09/1999	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-12	12/16/1999	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-12	07/11/2000	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-12	07/27/2001	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-12	02/18/2002	N	N	N	N	<1.	<1.	<1.	<1.	<100.	<100.	N	N
DWW-12	08/29/2002	N	N	N	N	<2.	<2.	<2.	<3.	<380.	<380.	N	N
DWW-12	03/20/2003	N	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
DWW-12	01/20/2004	N	N	N	N	<1.	<1.	<1.	<3.	<380.	<380.	N	N
DWW-12	12/07/2004	N	N	N	N	<2.	<2.	<2.	<3.	<380.	<380.	N	N
DWW-12	08/15/2006	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Church Well	12/12/2009	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Church Well	10/12/2011	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Church Well	03/21/2012	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
Church Well	08/29/2012	N	N	N	N	<2.	<2.	<2.	<3.	<300.	<300.	N	N
Church Well	03/19/2013	N	N	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
Church Well	09/23/2013	N	N	N	N	<0.5	<1.	<1.	<3.	<300.	<300.	N	N
Church Well	03/06/2014	N	N	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
Church Well	09/26/2014	N	N	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Church Well	04/01/2015	N	N	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
Church Well	04/05/2016	N	N	N	N	<0.5	<1.	<1.	<3.	<306.	<306.	N	N
East Assoc. Well	12/12/2009	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
East Assoc. Well	10/05/2011	N	N	N	N	<1.	<1.	<1.	<3.	<345.	<345.	N	N
East Assoc. Well	03/21/2012	N	N	N	N	<1.	<1.	<1.	<3.	<300.	<300.	N	N
East Assoc. Well	08/29/2012	N	N	N	N	<2.	<2.	<2.	<3.	<300.	<300.	N	N
East Assoc. Well	03/19/2013	N	N	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
East Assoc. Well	09/23/2013	N	N	N	N	<0.5	<1.	<1.	<3.	<288.	<288.	N	N
East Assoc. Well	03/06/2014	N	N	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
East Assoc. Well	09/26/2014	N	N	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N
East Assoc. Well	04/01/2015	N	N	N	N	<0.5	<1.	<1.	<3.	<278.	<278.	N	N

SMR Groundwater Analytical Data (ug/L), V-2.51, 8LTU14

Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
East Assoc. Well	04/21/2015	N	N	N	N	~~N~~	~~N~~	~~N~~	~~N~~	~~<300.~~	~~<300.~~	N	N
East Assoc. Well	04/05/2016	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
West Assoc. Well	12/12/2009	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
West Assoc. Well	10/05/2011	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
West Assoc. Well	03/21/2012	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
West Assoc. Well	08/29/2012	N	N	N	N	~~<2.~~	~~<2.~~	~~<2.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
West Assoc. Well	03/19/2013	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<288.~~	~~<288.~~	N	N
West Assoc. Well	09/23/2013	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<288.~~	~~<288.~~	N	N
West Assoc. Well	03/06/2014	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<382.~~	~~<382.~~	N	N
West Assoc. Well	09/26/2014	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
West Assoc. Well	04/01/2015	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<278.~~	~~<278.~~	N	N
West Assoc. Well	04/21/2015	N	N	N	N	~~N~~	~~N~~	~~N~~	~~N~~	~~<300.~~	~~<300.~~	N	N
West Assoc. Well	04/05/2016	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<303.~~	~~<303.~~	N	N
Wolfs Well	08/12/1991	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<1.~~	~~N~~	~~N~~	N	N
Hancock Well	04/22/2010	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<333.~~	~~<333.~~	N	N
Hancock Well	10/05/2011	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
Hancock Well	03/21/2012	N	N	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
Hancock Well	08/29/2012	N	N	N	N	~~<2.~~	~~<2.~~	~~<2.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
Hancock Well	03/19/2013	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<288.~~	~~<288.~~	N	N
Hancock Well	09/23/2013	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<288.~~	~~<288.~~	N	N
Hancock Well	03/06/2014	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<288.~~	~~<288.~~	N	N
Hancock Well	09/26/2014	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<278.~~	~~<278.~~	N	N
Hancock Well	04/01/2015	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<278.~~	~~<278.~~	N	N
Hancock Well	04/21/2015	N	N	N	N	~~N~~	~~N~~	~~N~~	~~N~~	~~<300.~~	~~<300.~~	N	N
Hancock Well	04/05/2016	N	N	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<326.~~	~~<326.~~	N	N
School Well	04/22/2010	1,131.80	1,132.54	N	N	~~2.57~~	~~4.81~~	~~11.9~~	~~44.4~~	~~<300.~~	~~<300.~~	N	N
School Well Inside	05/10/2010	1,131.80	1,132.54	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
School Well Outside	05/10/2010	1,131.80	1,132.54	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
School Well	09/10/2010	1,131.80	1,132.54	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
School Well	12/09/2010	1,131.80	1,132.54	N	N	~~<2.~~	~~<2.~~	~~<2.~~	~~<3.~~	~~N~~	~~N~~	N	N
School Well	03/02/2011	1,131.80	1,132.54	N	N	~~<2.~~	~~<2.~~	~~<2.~~	~~<3.~~	~~N~~	~~N~~	N	N
School Well	06/15/2011	1,131.80	1,132.54	N	N	~~<1.~~	~~<1.~~	~~1.47~~	~~<3.~~	~~N~~	~~N~~	N	N
School Well	10/05/2011	1,131.80	1,132.54	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
School Well	12/19/2011	1,131.80	1,132.54	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~N~~	~~N~~	N	N
School Well	03/21/2012	1,131.80	1,132.54	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
School Well	08/29/2012	1,131.80	1,132.54	N	N	~~<1.~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<300.~~	~~<300.~~	N	N
School Well	03/19/2013	1,131.80	1,132.54	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<288.~~	~~<288.~~	N	N

SMR Groundwater Analytical Data (ug/L), V-2.51, 8LTU14													
Boring / Well #	Date Sampled	Elevations (ASL)				Group 1				Group 2		FP Type	FP Default?
		Ground	TOC	TOS	SWL	B	T	E	X	TEH-D	TEH-WO		
School Well	09/23/2013	1,131.80	1,132.54	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<288.~~	~~<288.~~	N	N
School Well	03/06/2014	1,131.80	1,132.54	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<283.~~	~~<283.~~	N	N
School Well	09/26/2014	1,131.80	1,132.54	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<278.~~	~~<278.~~	N	N
School Well	04/01/2015	1,131.80	1,132.54	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<278.~~	~~<278.~~	N	N
School Well	04/21/2015	1,131.80	1,132.54	N	N	~~N~~	~~N~~	~~N~~	~~N~~	~~<300.~~	~~1,190.~~	N	N
School Well	04/05/2016	1,131.80	1,132.54	N	N	~~<0.5~~	~~<1.~~	~~<1.~~	~~<3.~~	~~<303.~~	~~<303.~~	N	N

SMR, GROUNDWATER / SOIL LEACHING MONITORING PLAN SUMMARY and NFA GW/SL MONITORING RESULTS

MW	Most Recent Sample	SSTL	SSTL Met	Steady Decline/ 3 Year	Monitor Type(T2)	Receptor Type	Receptor Label	Receptor Description	Chem. Risk	Recept. Curr. Risk	Min. Freq.
GW/SL MONITORING PLAN											
MW-21 MW-	1										
		1	Yes	Yes	/	DWW	DWW-9	Bank Well	H	H	Annual
MW-103	<0.500										
		250	Yes	Yes	/P	DWW	DWW-9	Bank Well	H	H	Annual
MW-106	<1										
		8	Yes	Yes	TG/	DWW	DWW-9	Bank Well	H	H	Annual
MW-109	<1										
		250	Yes	Yes	/P	DWW	DWW-9	Bank Well	H	H	Annual
MW-117	8,390										
		250	No	Yes	S/	DWW	DWW-9	Bank Well	H	H	Annual
MW-20 MW-	<0.500										
		6	Yes	Yes	XT/	DWW	DWW-9	Bank Well	H	H	Annual
MW-119 M	154										
		4	No	No	/	DWW	DWW-9	Bank Well	H	H	Annual
MW-120	<0.500										
		3	Yes	Yes	/	DWW	DWW-9	Bank Well	H	H	Annual
MW-122	<0.500										
		250	Yes	Yes	/P	DWW	DWW-9	Bank Well	H	H	Annual
B-1 MW-2 M	<0.500										
		1	Yes	No	/	DWW	DWW-9	Bank Well	H	H	Annual
MW-16	<0.500										
		2	Yes	Yes	/	DWW	DWW-9	Bank Well	H	H	Annual
NFA GW/SL MONITORING RESULTS											
MW-103	<0.500										
		1,051	Yes	Yes	/	DWW	DWW-13	East Association W	N	L	
MW-109	<1										
		13	Yes	Yes	G/	DWW	DWW-13	East Association W	N	L	
MW-115	<1										
		16,868	Yes	Yes	/	DWW	DWW-13	East Association W	N	L	
MW-117	8,390										
		224,416	Yes	Yes	S/	DWW	DWW-13	East Association W	N	L	
MW-122	<0.500										
		35,361	Yes	Yes	/	DWW	DWW-13	East Association W	N	L	

SMR, GROUNDWATER / SOIL LEACHING MONITORING PLAN SUMMARY and NFA GW/SL MONITORING RESULTS

MW	Most Recent Sample	SSTL	SSTL Met	Steady Decline/ 3 Year	Monitor Type(T2)	Receptor			Chem. Risk	Recept. Curr. Risk	Min. Freq.
						Type	Label	Description			
GW/SL MONITORING PLAN											
NFA GW/SL MONITORING RESULTS											
MW-117	29,800**										
		286,564,200	Yes	Yes	S/	DWW	DWW-13	East Association W	N	L	

SMR, GROUNDWATER / SOIL LEACHING MONITORING PLAN SUMMARY and NFA GW/SL MONITORING RESULTS

MW	Most Recent Sample	SSTL	SSTL Met	Steady Decline/ 3 Year	Monitor Type(T2)	Receptor			Chem. Risk	Recept. Curr. Risk	Min. Freq.
						Type	Label	Description			
GW/SL MONITORING PLAN											
NFA GW/SL MONITORING RESULTS											

SMR, GROUNDWATER / SOIL LEACHING MONITORING PLAN SUMMARY and NFA GW/SL MONITORING RESULTS

MW	Most Recent Sample	SSTL	SSTL Met	Steady Decline/ 3 Year	Monitor Type(T2)	Receptor			Chem. Risk	Recept. Curr. Risk	Min. Freq.
						Type	Label	Description			
GW/SL MONITORING PLAN											
NFA GW/SL MONITORING RESULTS											

SMR, GROUNDWATER / SOIL LEACHING MONITORING PLAN SUMMARY and NFA GW/SL MONITORING RESULTS

MW	Most Recent Sample	SSTL	SSTL Met	Steady Decline/ 3 Year	Monitor Type(T2)	Receptor			Chem. Risk	Recept. Curr. Risk	Min. Freq.
						Type	Label	Description			
GW/SL MONITORING PLAN											
MW-119 M	<278										
		5,196	Yes	No	S/	DWW	DWW-9	Bank Well	H*	H	Annual
		178,949	Yes	No	S/	DWW	DWW-12	Church Well	L*	L	Annual
MW-121	1,750										
		17,937	Yes	No	L/	DWW	DWW-12	Church Well	L*	L	Annual
MW-122	<278										
		9,331	Yes	Yes	/	DWW	DWW-12	Church Well	L*	L	Annual
NFA GW/SL MONITORING RESULTS											

SMR, GROUNDWATER / SOIL LEACHING MONITORING PLAN SUMMARY and NFA GW/SL MONITORING RESULTS

MW	Most Recent Sample	SSTL	SSTL Met	Steady Decline/ 3 Year	Monitor Type(T2)	Receptor			Chem. Risk	Recept. Curr. Risk	Min. Freq.
						Type	Label	Description			
GW/SL MONITORING PLAN											
NFA GW/SL MONITORING RESULTS											
MW-1	<300**										
		425	Yes	Yes	S/	DWW	DWW-13	East Association W	N	L	

APPENDIX 1

EVALUATION OF ANALYTICAL DATA

APPENDIX 1

EVALUATION OF ANALYTICAL DATA

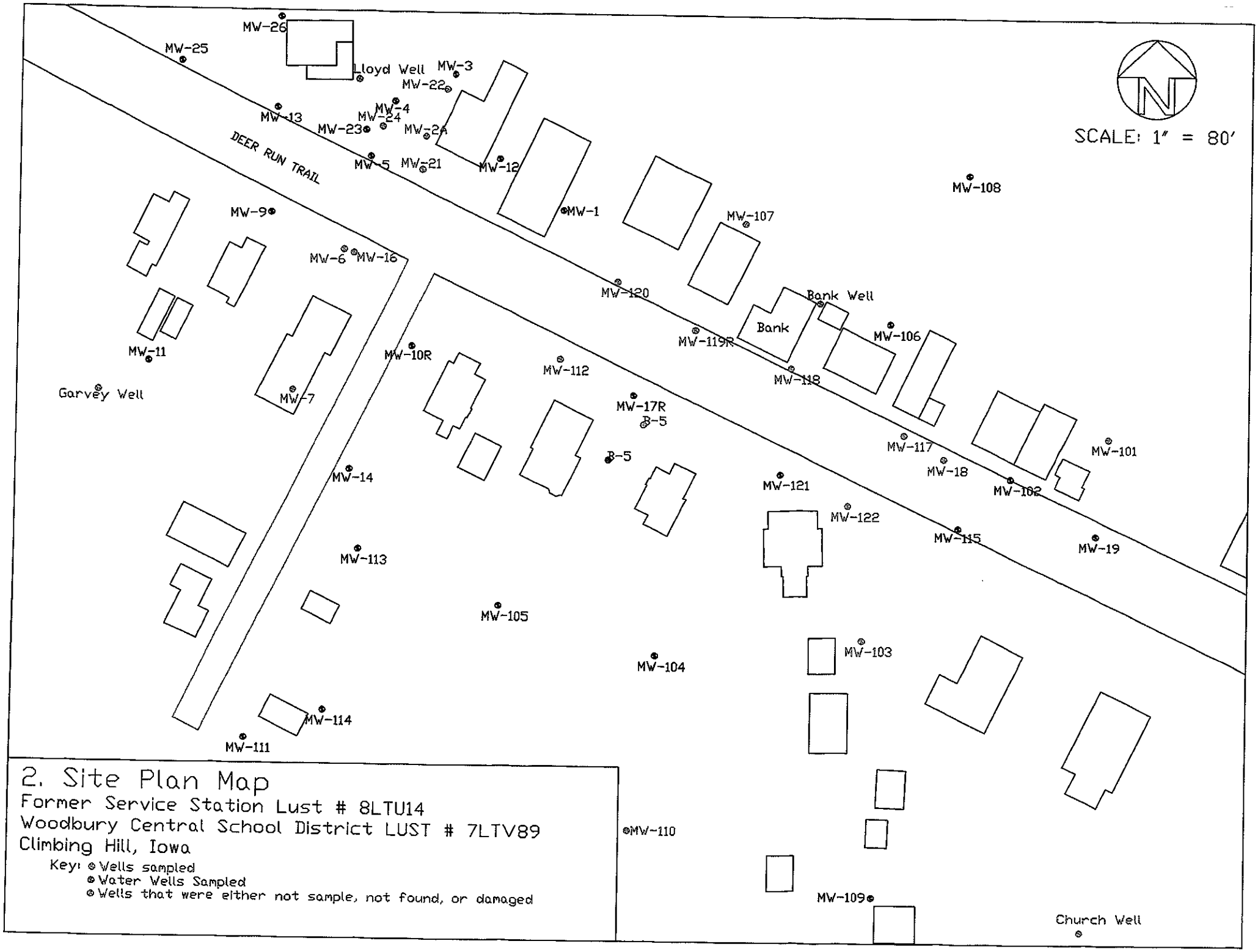
Annual monitoring of the School District and the Benjamin sites (former Service Station site) was performed on April 5, 2016. Due to new construction on the Lloyd property MW-2A was unable to be located and is considered destroyed. All other wells in the monitoring plan were sampled.

This SMR is a combined report for both sites and provides mapping of the current groundwater concentrations. The Tier 2 software file used for this report was generated using the Benjamin site software file as the base file and all of the historical data from the School District site has been included. The primary problem with creating this Tier 2 software file was the overwhelming amount of analytical data provided in the SMR Groundwater Analytical Data Table. In order to make this report easier to review, only the historical data from wells that were sampled during this monitoring event are printed in the table. Please note that all of the data is provided in the software file.

Contaminants were not detected in any of the water supply wells. The concentrations at monitoring wells MW-6, MW-16, MW-103, MW-118, and MW-122 remained below the detection limits for this sampling event. Benzene at MW-21 increased slightly from below the detection limits of 0.5 ppb to 0.512 ppb while the remaining chemicals of concern remained non detect. MW-120 the TEH-D decreased to below detection limits and is currently non detect for all chemicals of concern. MW-2 showed a decrease in both benzene and TEH-D, Ethylbenzene remained below detection limits while the remaining chemicals of concern showed in increase. MW-117 showed a decrease in benzene and the TEH chemicals remain below detection limits while the remaining chemicals of concern showed an increase. MW-119R decreased in toluene, xylenes, and TEH-D while benzene and the remaining chemicals of concern showed in increase.

The groundwater flow direction remains consistent with previous observation and continues to in east-northeasterly direction. Because MW-16 is a deep well nested to the former MW-6 location, the screen for MW-16 well is submerged by design. As discussed in previous report, the Garvey well has been plugged limiting our ability to monitor the deeper aquifer.

APPENDIX 2
SITE PLAN MAP



2. Site Plan Map

Former Service Station Lust # 8LTU14

Woodbury Central School District LUST # 7LTV89

Climbing Hill, Iowa

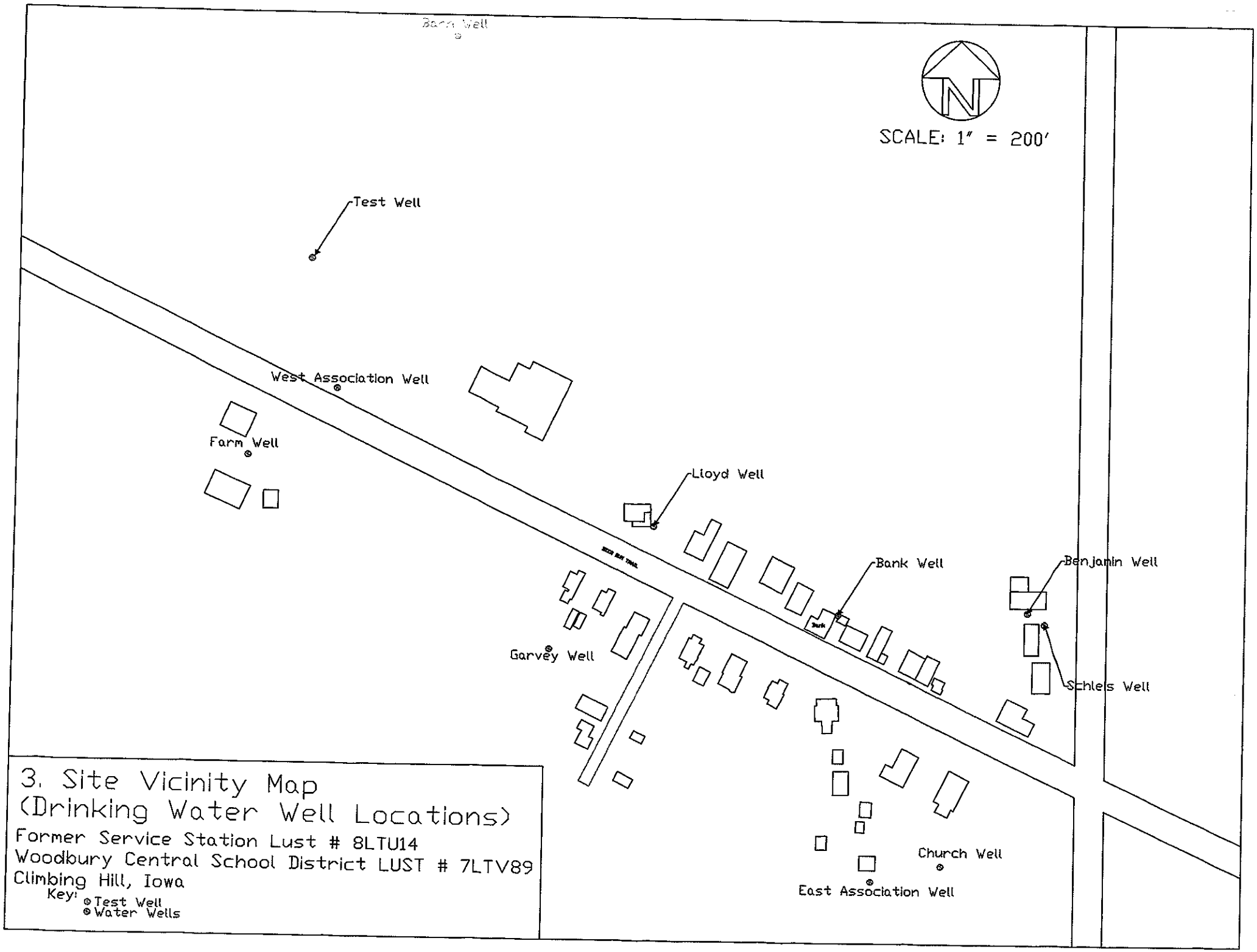
Key: ⊗ Wells sampled

⊗ Water Wells Sampled

⊗ Wells that were either not sample, not found, or damaged

APPENDIX 3

SITE VICINITY MAP



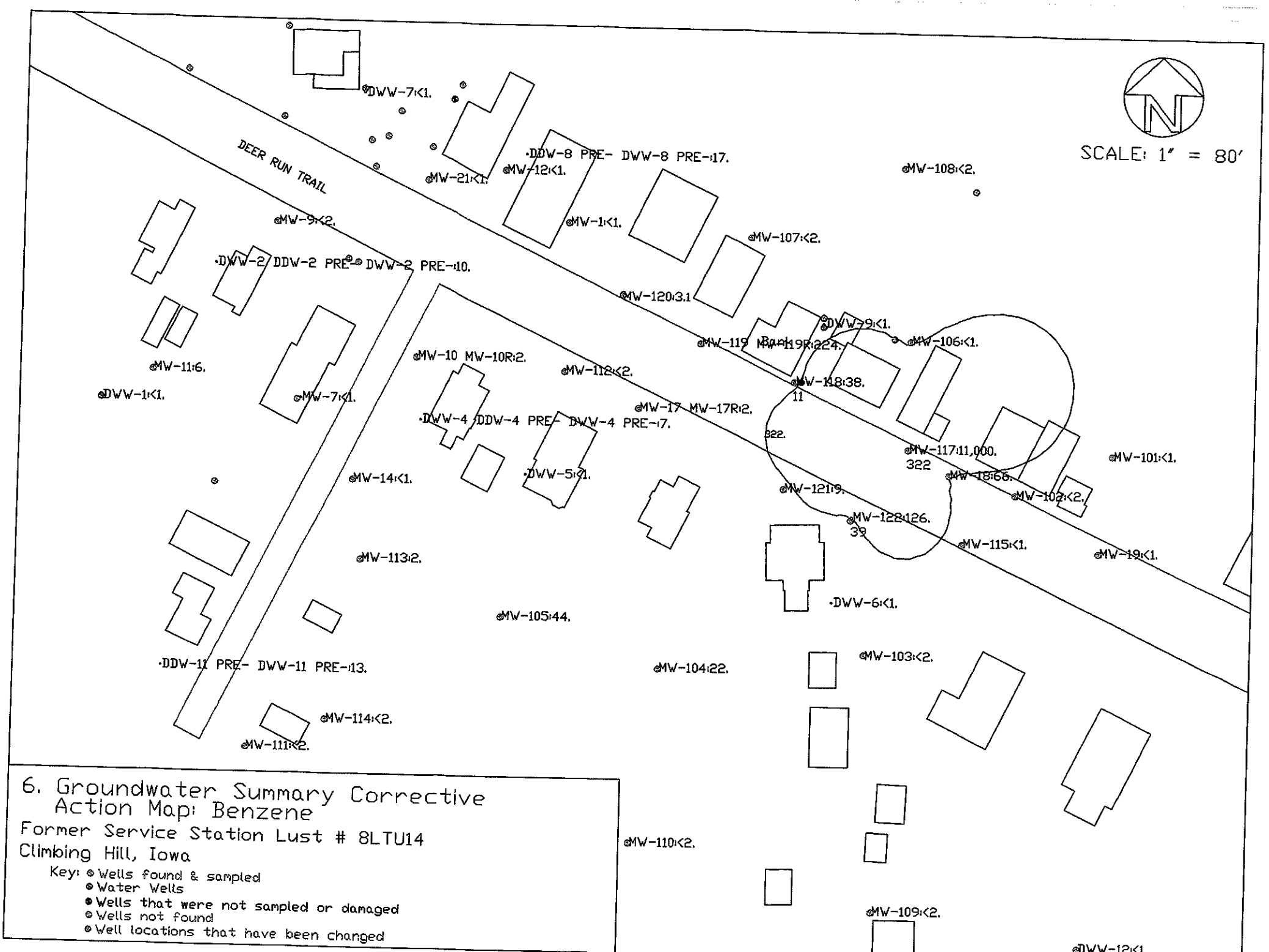
3. Site Vicinity Map
(Drinking Water Well Locations)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST # 7LTV89
Climbing Hill, Iowa

Key:
- ⊗ Test Well
- ⊗ Water Wells

APPENDIX 6

GROUNDWATER SUMMARY CORRECTIVE ACTION MAP



6. Groundwater Summary Corrective Action Map: Benzene

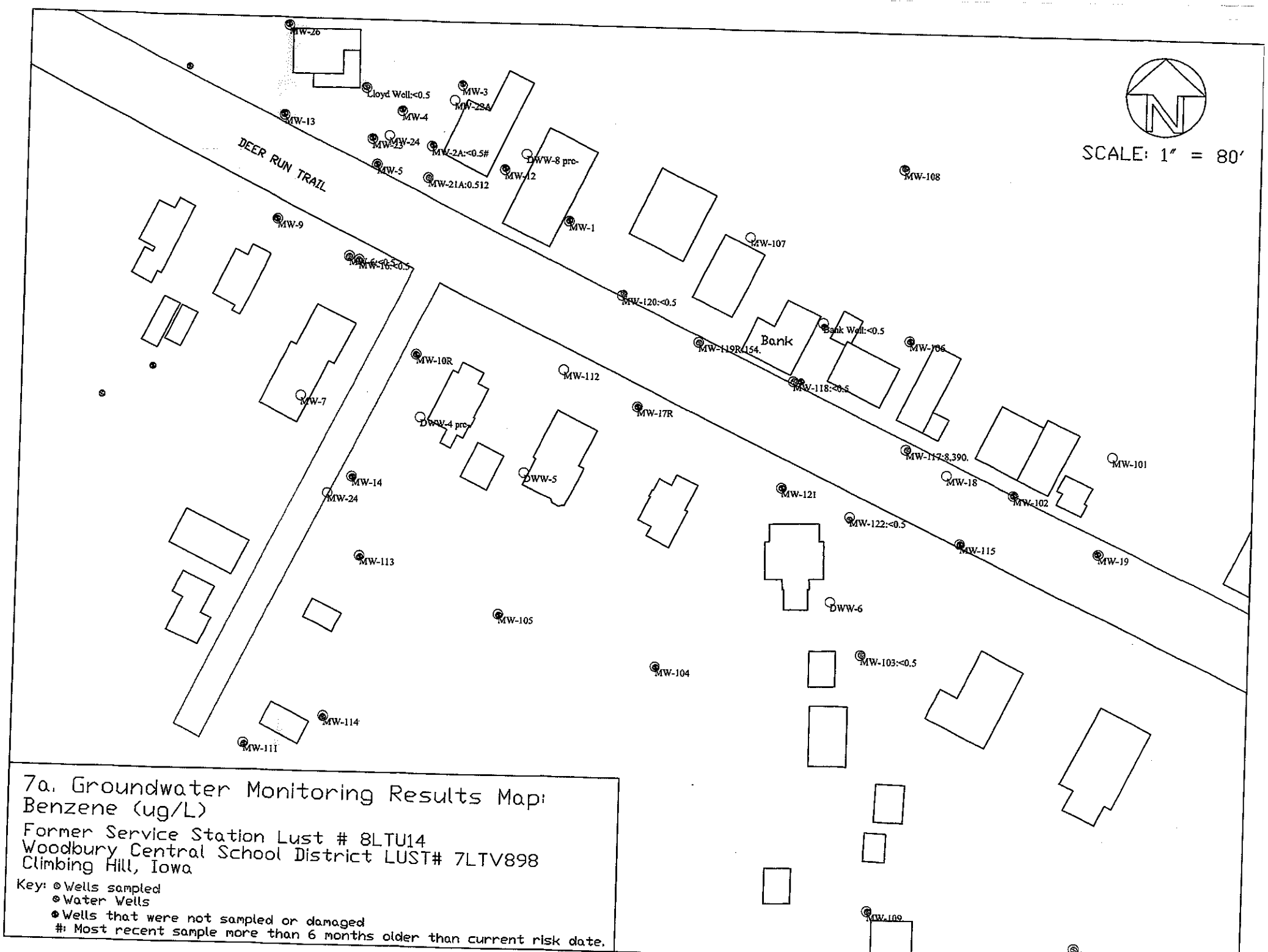
Former Service Station Lust # 8LTU14

Climbing Hill, Iowa

Key:
- Wells found & sampled
- Water Wells
- Wells that were not sampled or damaged
- Wells not found
- Well locations that have been changed

APPENDIX 7

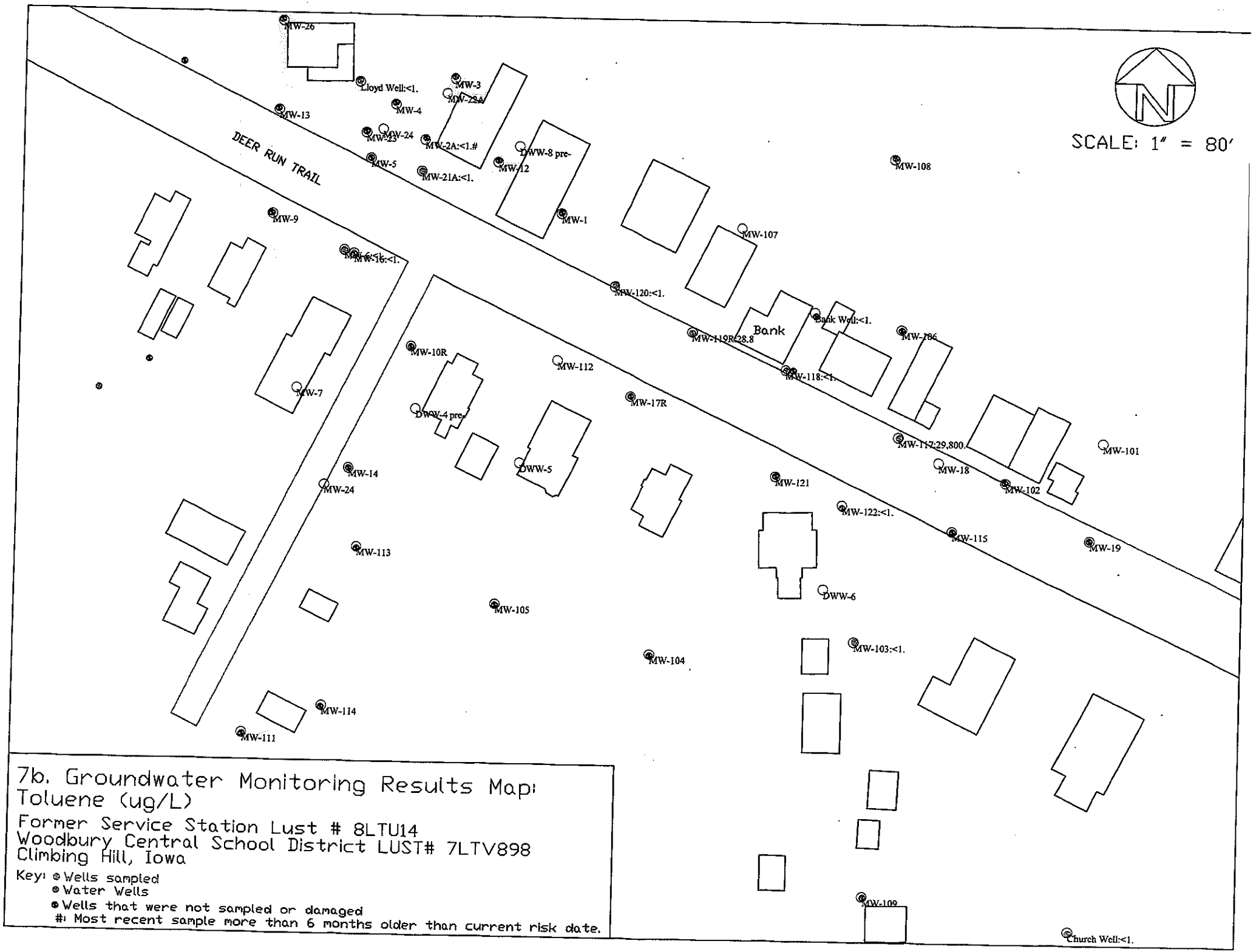
GROUNDWATER MONITORING RESULTS MAPS



7a. Groundwater Monitoring Results Map: Benzene (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST# 7LTV898
Climbing Hill, Iowa

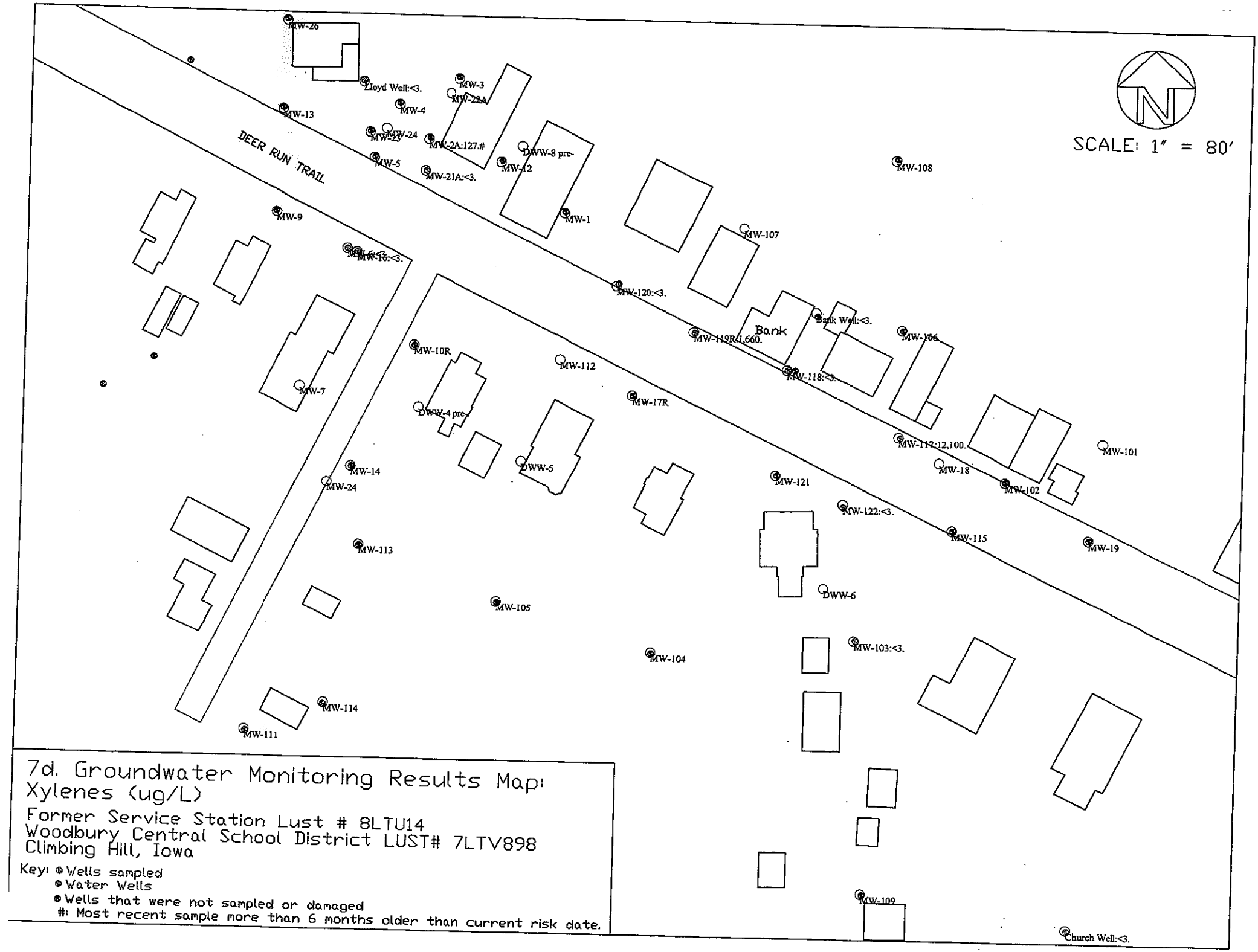
Key: ⊙ Wells sampled
⊙ Water Wells
⊙ Wells that were not sampled or damaged
#: Most recent sample more than 6 months older than current risk date.



7b. Groundwater Monitoring Results Map: Toluene (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST# 7LTV898
Climbing Hill, Iowa

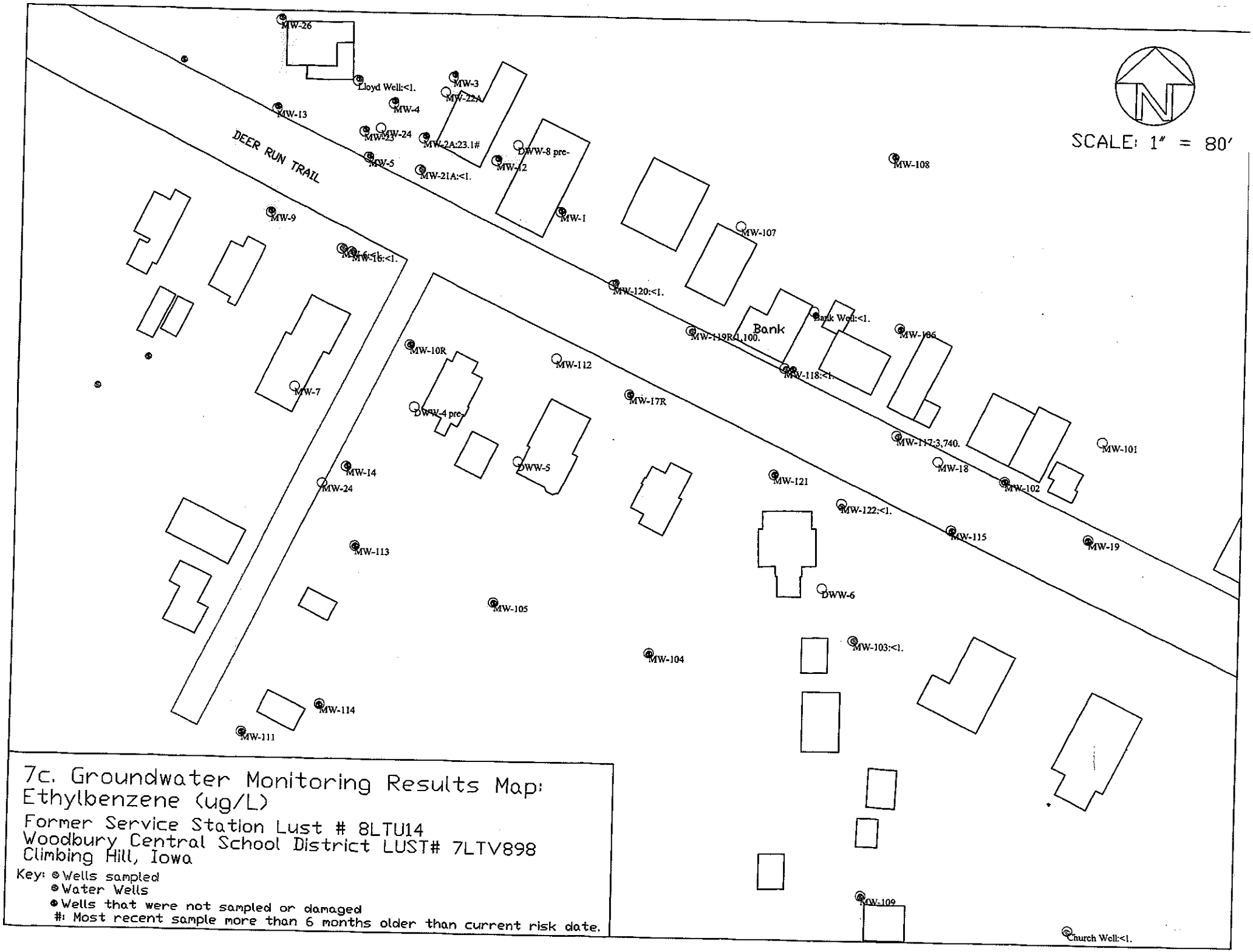
Key: ⊗ Wells sampled
⊗ Water Wells
⊗ Wells that were not sampled or damaged
#: Most recent sample more than 6 months older than current risk date.



7d. Groundwater Monitoring Results Map: Xylenes (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST# 7LTV898
Climbing Hill, Iowa

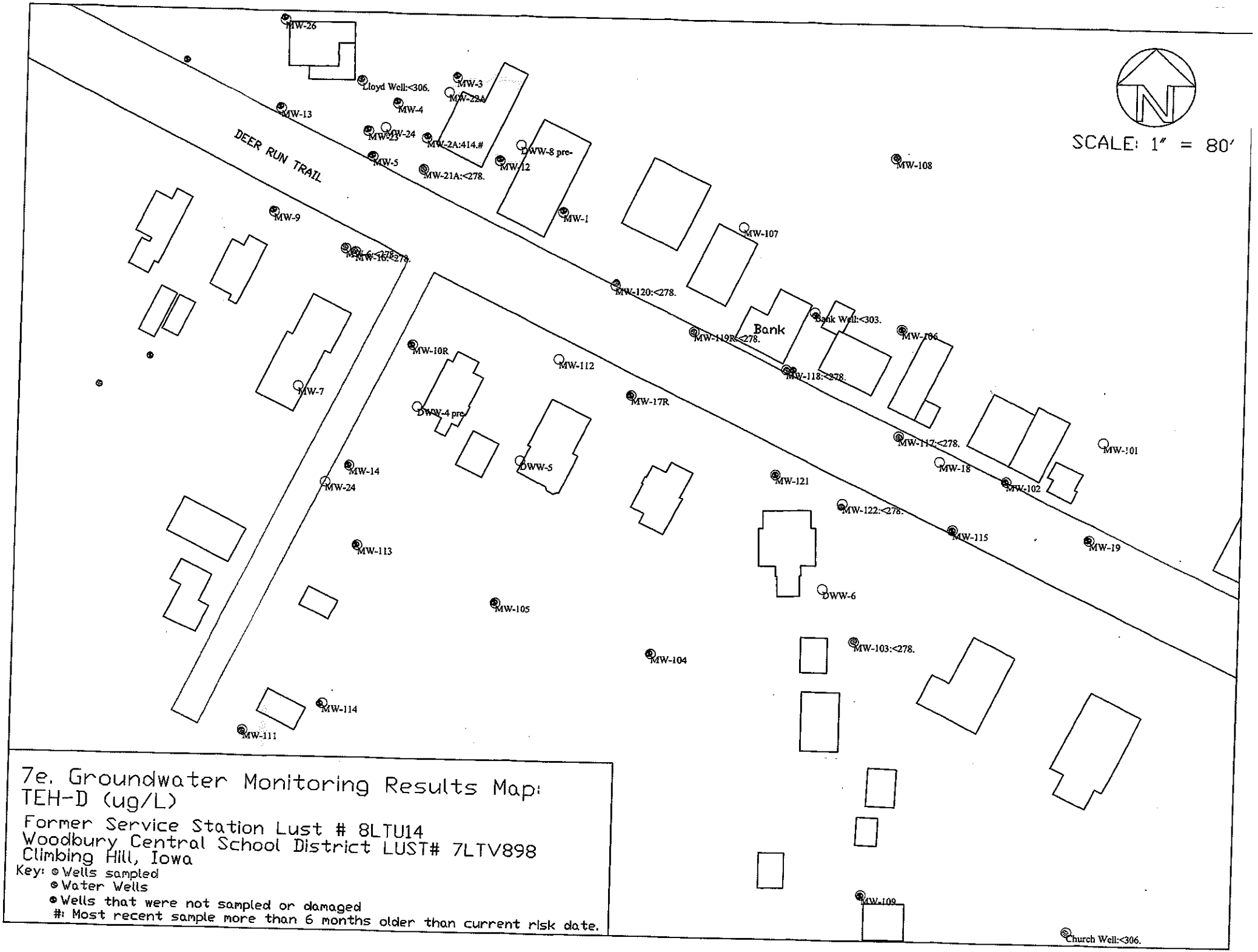
Key: ⊕ Wells sampled
⊕ Water Wells
⊕ Wells that were not sampled or damaged
#: Most recent sample more than 6 months older than current risk date.



7c. Groundwater Monitoring Results Map: Ethylbenzene (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST# 7LTV898
Climbing Hill, Iowa

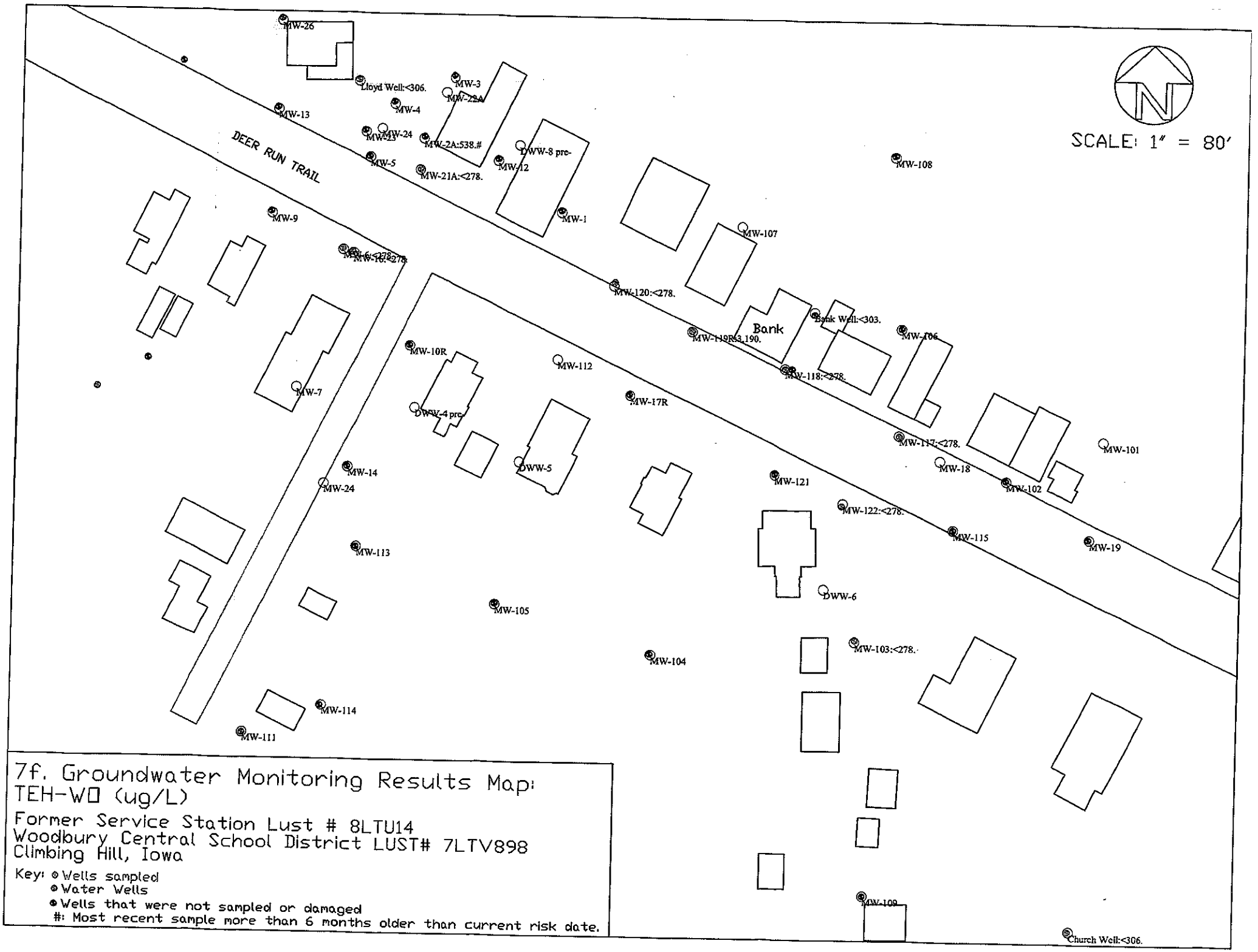
Key: ⊗ Wells sampled
⊗ Water Wells
● Wells that were not sampled or damaged
#: Most recent sample more than 6 months older than current risk date.



7e. Groundwater Monitoring Results Map: TEH-D (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST# 7LTV898
Climbing Hill, Iowa

Key: ⊙ Wells sampled
⊙ Water Wells
⊙ Wells that were not sampled or damaged
#: Most recent sample more than 6 months older than current risk date.



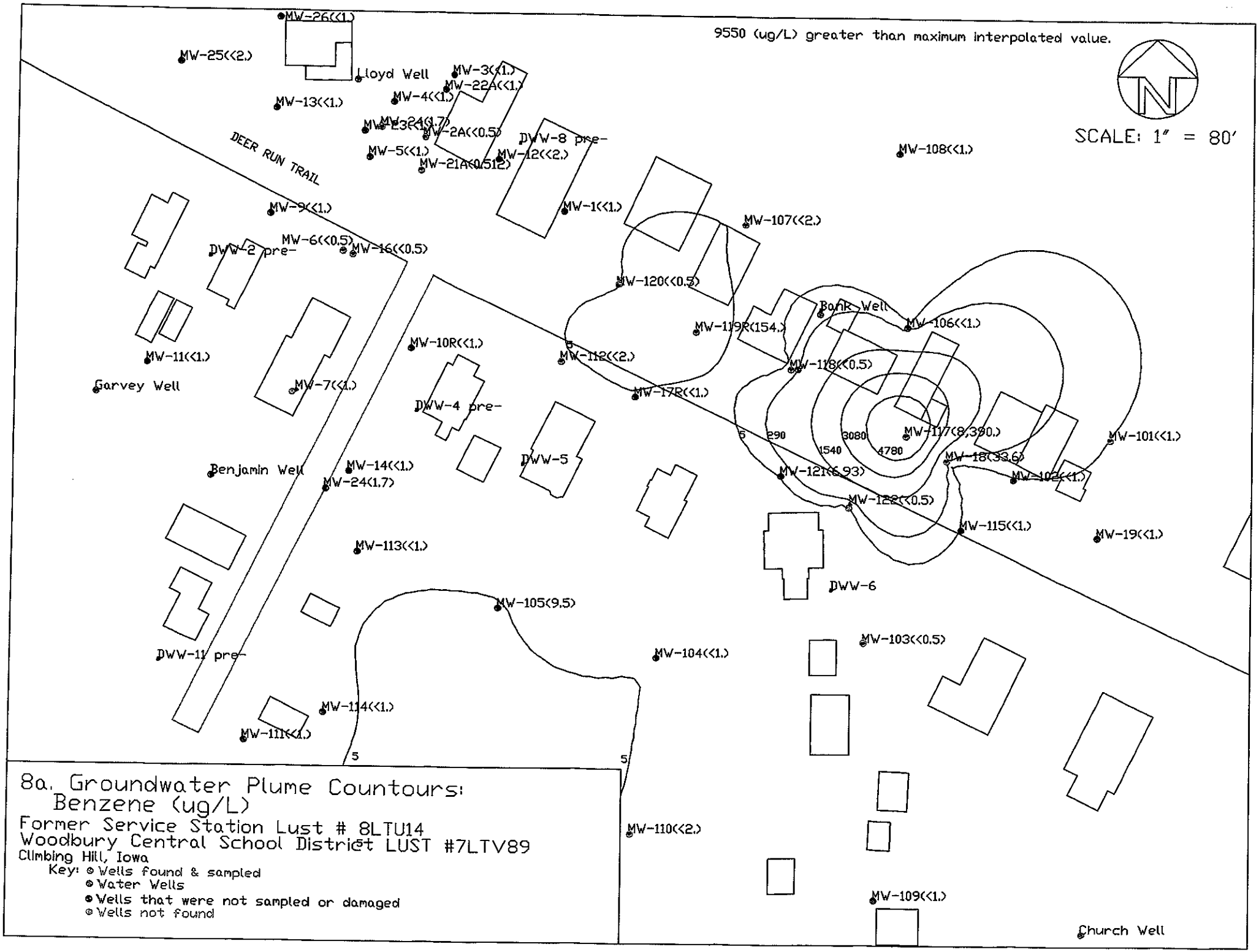
7f. Groundwater Monitoring Results Map: TEH-W□ (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST# 7LTV898
Climbing Hill, Iowa

Key: ⊙ Wells sampled
⊙ Water Wells
⊙ Wells that were not sampled or damaged
#: Most recent sample more than 6 months older than current risk date.

APPENDIX 8

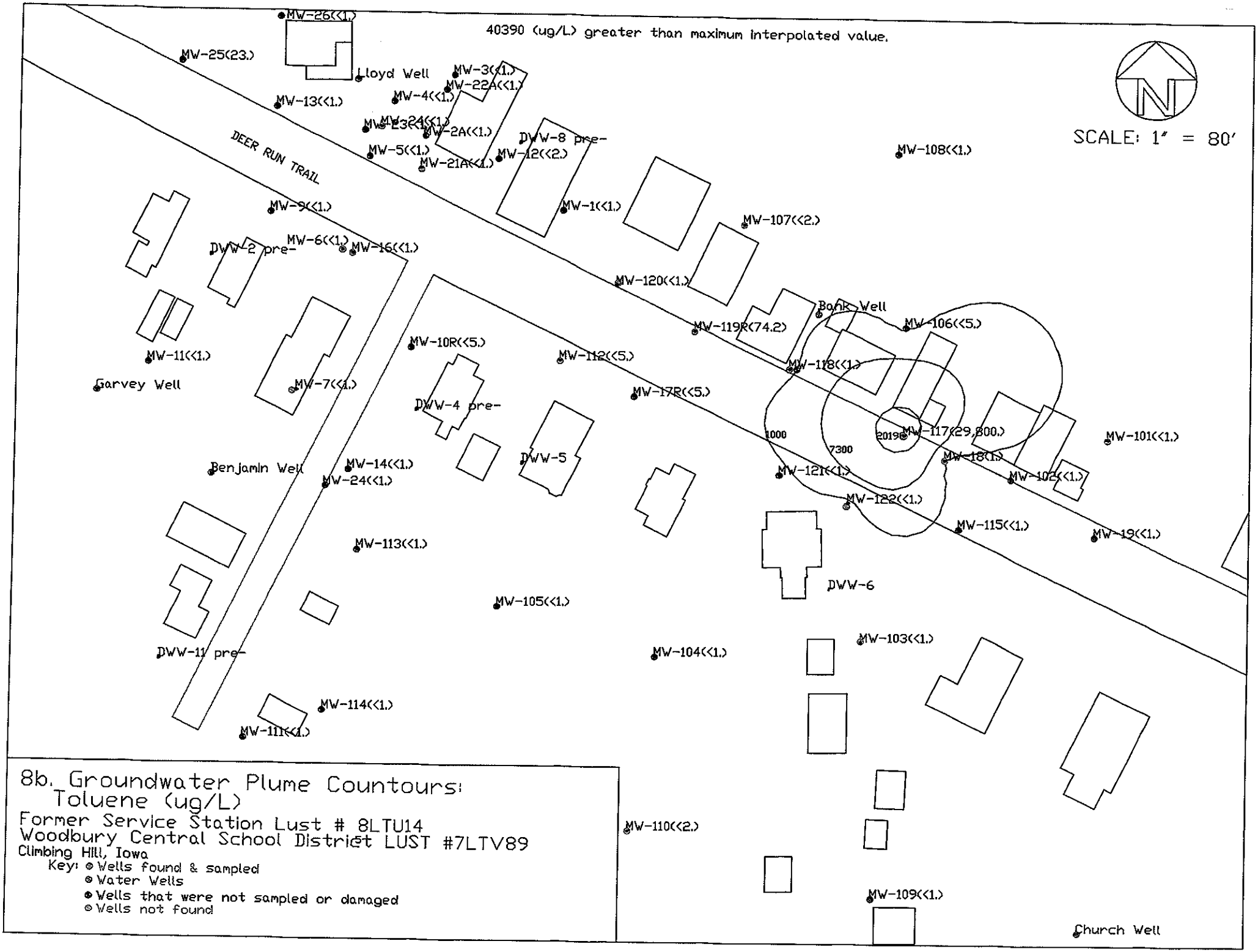
GROUNDWATER CONTAMINATION MAPS



8a. Groundwater Plume Countours: Benzene (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST #7LTV89
Climbing Hill, Iowa

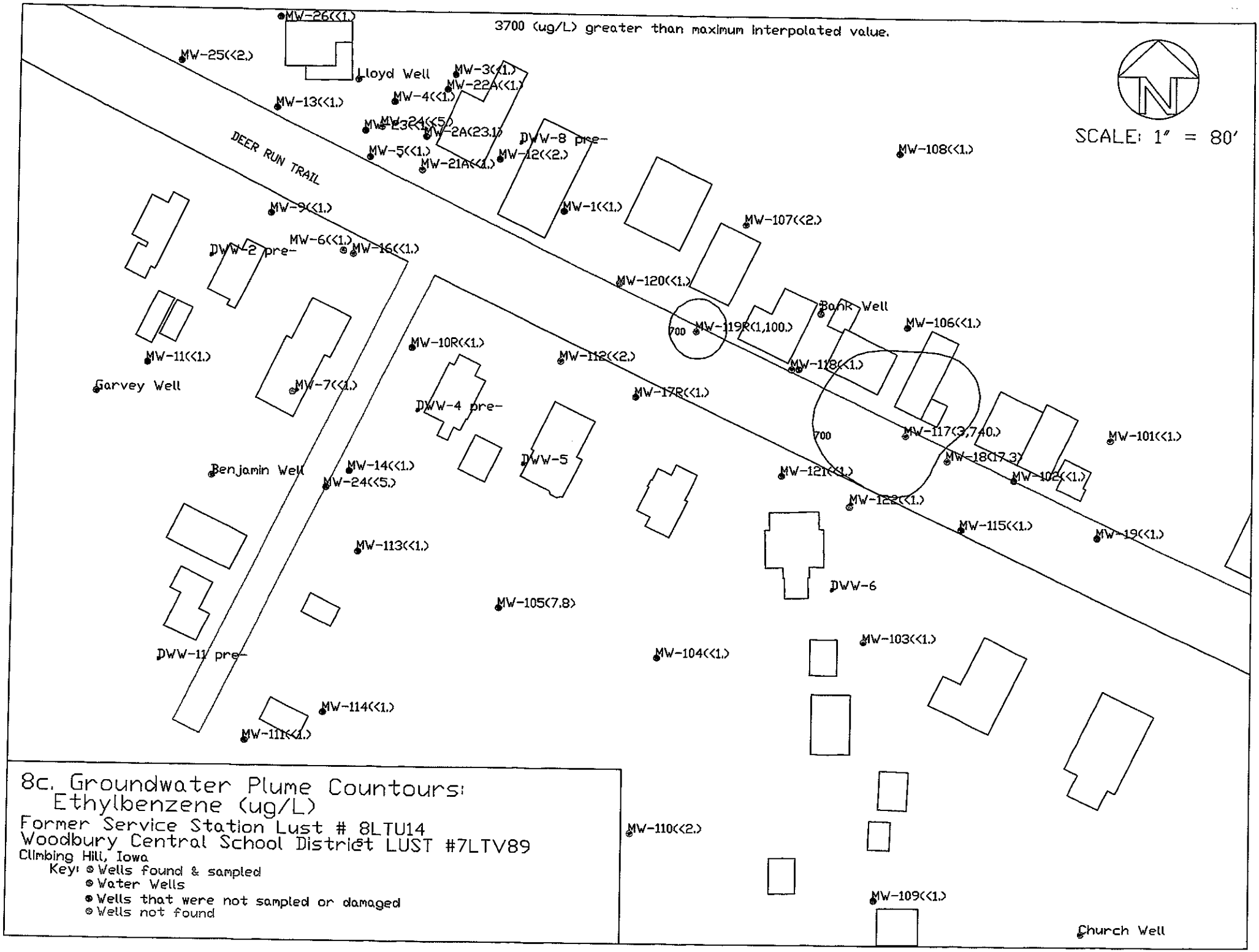
Key:
- Wells found & sampled
- Water Wells
- Wells that were not sampled or damaged
- Wells not found



8b. Groundwater Plume Countours: Toluene (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST #7LTV89
Climbing Hill, Iowa

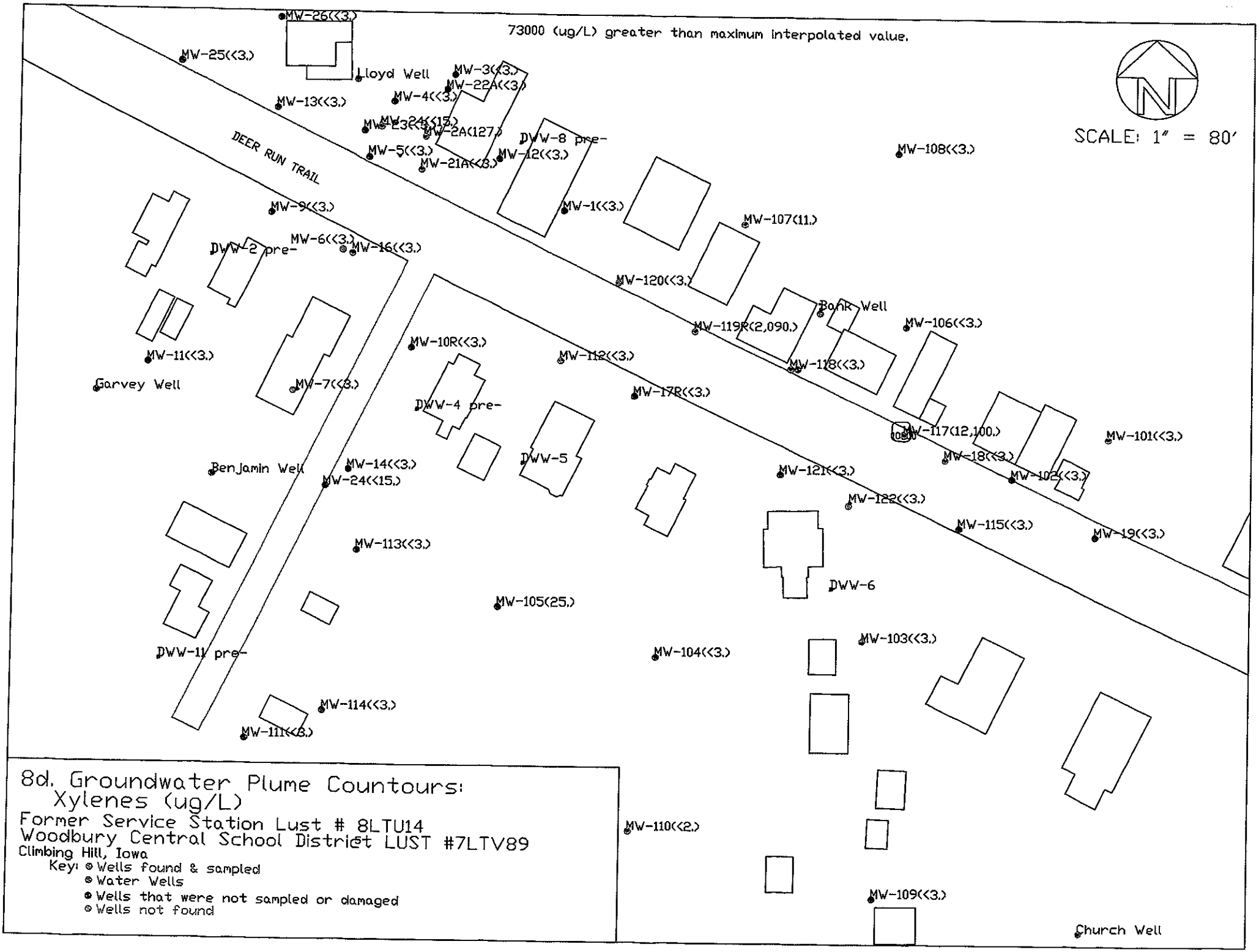
Key:
- ⊛ Wells found & sampled
- ⊛ Water Wells
- ⊛ Wells that were not sampled or damaged
- ⊛ Wells not found



8c. Groundwater Plume Countours: Ethylbenzene (ug/L)

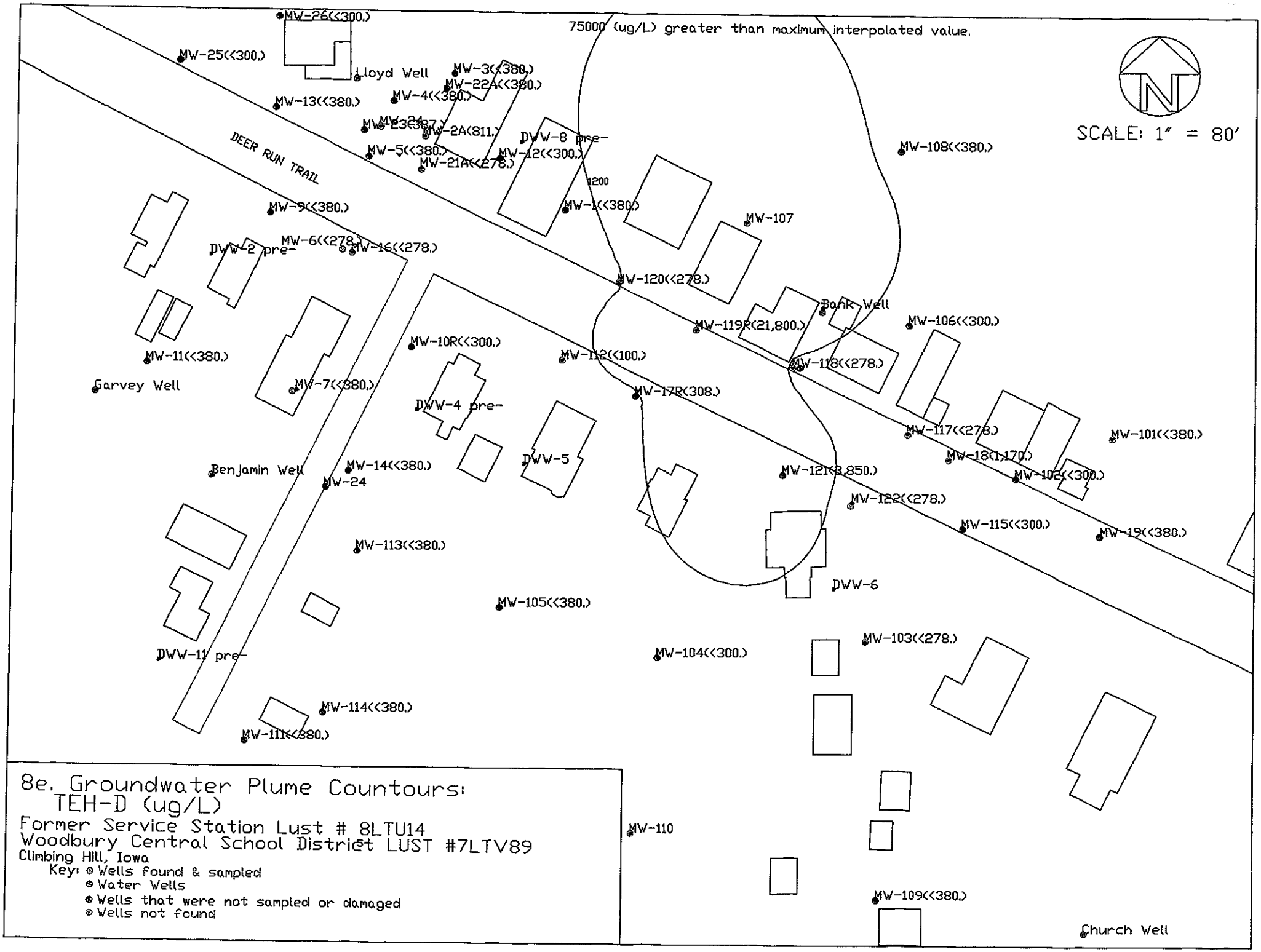
Former Service Station Lust # 8LTU14
Woodbury Central School District LUST #7LTV89
Climbing Hill, Iowa

Key:
- Wells found & sampled
- Water Wells
- Wells that were not sampled or damaged
- Wells not found



8d. Groundwater Plume Countours:
Xylenes (ug/L)
Former Service Station Lust # 8LTU14
Woodbury Central School District LUST #7LTV89
Climbing Hill, Iowa

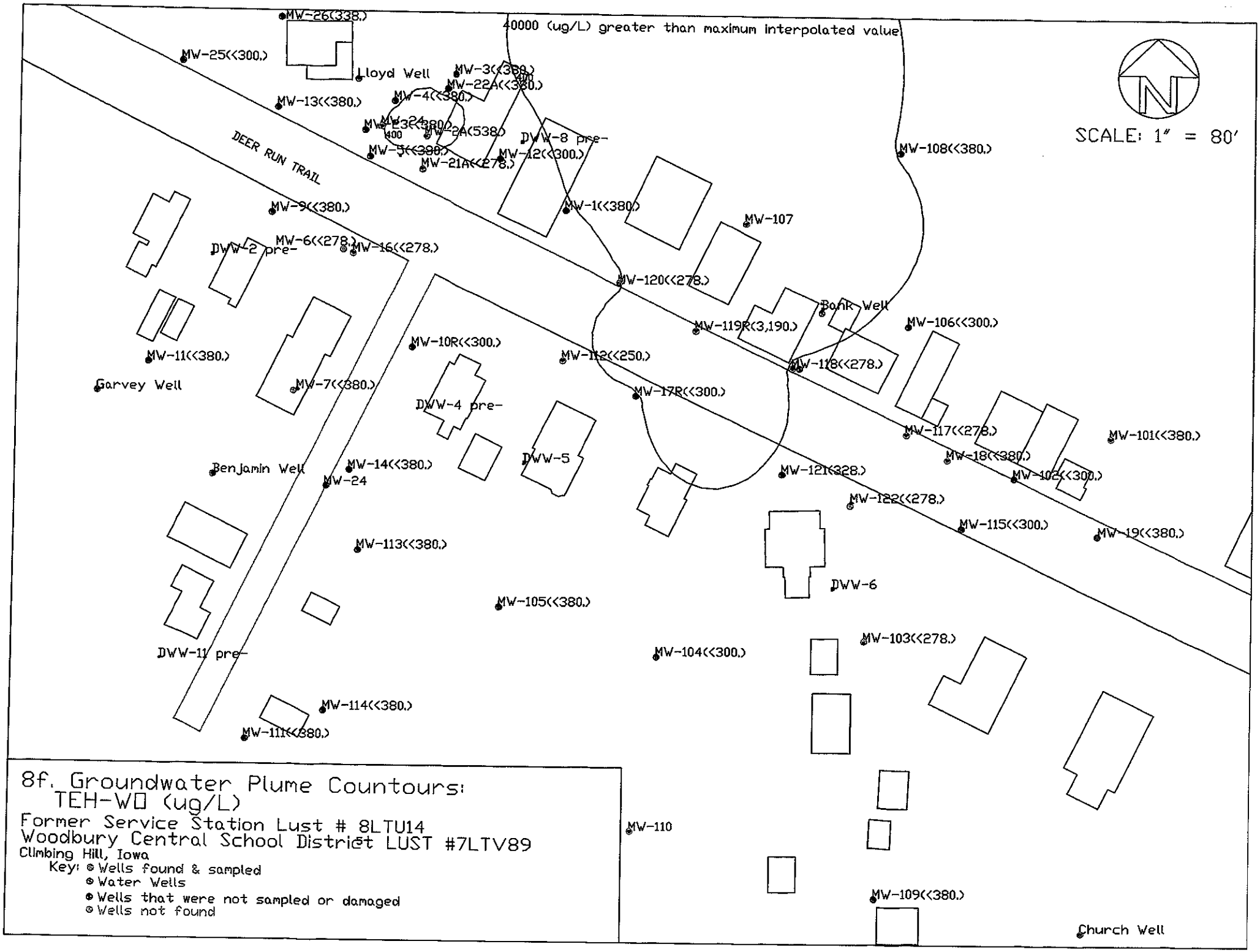
Key:
- Wells found & sampled
- Water Wells
- Wells that were not sampled or damaged
- Wells not found



8e. Groundwater Plume Countours:
TEH-D (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST #7LTV89
Climbing Hill, Iowa

Key: ⊙ Wells found & sampled
⊙ Water Wells
⊙ Wells that were not sampled or damaged
⊙ Wells not found



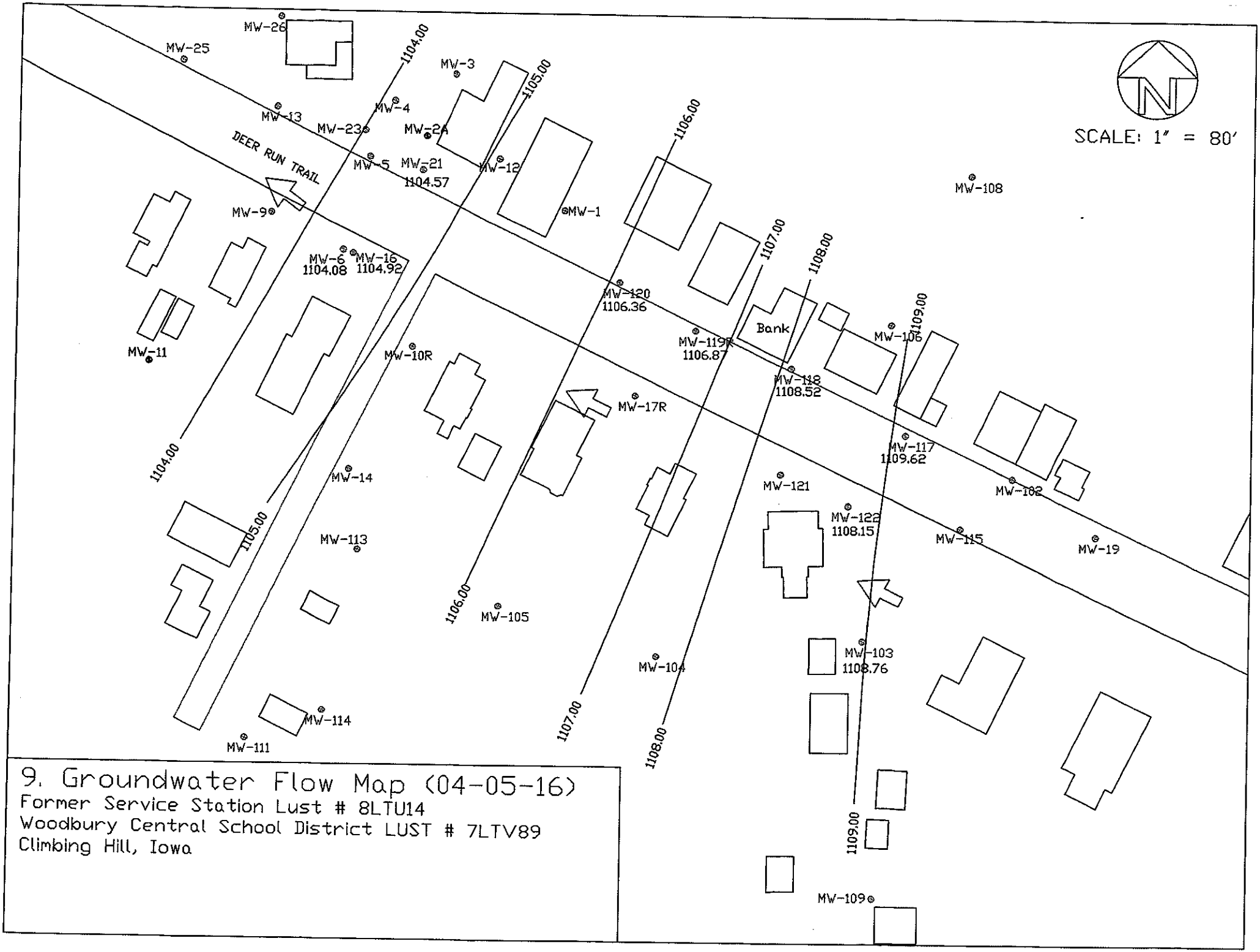
8f. Groundwater Plume Countours:
TEH-WO (ug/L)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST #7LTV89
Climbing Hill, Iowa

Key:
- Wells found & sampled
- Water Wells
- Wells that were not sampled or damaged
- Wells not found

APPENDIX 9

GROUNDWATER FLOW DIRECTION MAP

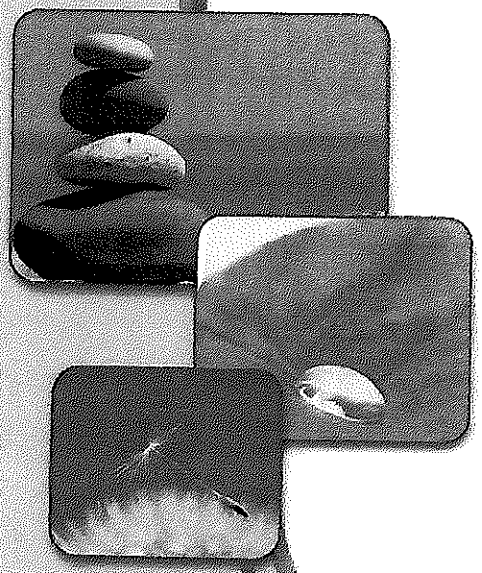


9. Groundwater Flow Map (04-05-16)

Former Service Station Lust # 8LTU14
Woodbury Central School District LUST # 7LTV89
Climbing Hill, Iowa

APPENDIX 10

ANALYTICAL DATA SHEETS



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-77999-1
Client Project/Site: Climbing Hill

For:
Northwest Environmental Services Inc
PO BOX 401
Alton, Iowa 51003

Attn: Dan Ruppert

Angela Muehling

Authorized for release by:
4/15/2016 1:28:17 PM

Angela Muehling, Project Manager I
(319)277-2401
angela.muehling@testamericainc.com

..... LINKS .....

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Chain of Custody 42
Receipt Checklists 46

Job ID: 310-77999-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-77999-1

Comments
No additional comments.

Receipt
The samples were received on 4/8/2016 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.4° C and 5.6° C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-77999-1	MW-21	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-2	MW-6	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-3	MW-16	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-4	MW-120	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-5	MW-119R	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-6	MW-118	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-7	MW-117	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-8	MW-122	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-9	MW-103	Ground Water	04/05/16 00:00	04/08/16 08:45
310-77999-10	Hancock Well	Drinking Water	04/05/16 00:00	04/08/16 08:45
310-77999-11	School Well	Drinking Water	04/05/16 00:00	04/08/16 08:45
310-77999-12	Church Well	Drinking Water	04/05/16 00:00	04/08/16 08:45
310-77999-13	Lloyd Well	Drinking Water	04/05/16 00:00	04/08/16 08:45
310-77999-14	Benjamin Well	Drinking Water	04/05/16 00:00	04/08/16 08:45
310-77999-15	East Association Well	Drinking Water	04/05/16 00:00	04/08/16 08:45
310-77999-16	West Association Well	Drinking Water	04/05/16 00:00	04/08/16 08:45
310-77999-17	Bank Well	Drinking Water	04/06/16 00:00	04/08/16 08:45

Detection Summary

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: MW-21 — Lab Sample ID: 310-77999-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.512		0.500		ug/L	1		8260C	Total/NA
Gasoline	2240		278		ug/L	1		OA-2	Total/NA
Total Extractable Hydrocarbons	654		463		ug/L	1		OA-2	Total/NA

Client Sample ID: MW-6 — Lab Sample ID: 310-77999-2

No Detections.

Client Sample ID: MW-16 — Lab Sample ID: 310-77999-3

No Detections.

Client Sample ID: MW-120 — Lab Sample ID: 310-77999-4

No Detections.

Client Sample ID: MW-119R — Lab Sample ID: 310-77999-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	154		0.500		ug/L	1		8260C	Total/NA
Ethylbenzene	1100		100		ug/L	100		8260C	Total/NA
Toluene	28.8		1.00		ug/L	1		8260C	Total/NA
Xylenes, Total	1660		300		ug/L	100		8260C	Total/NA
Gasoline	80200		278		ug/L	1		OA-2	Total/NA
Waste Oil	3190		278		ug/L	1		OA-2	Total/NA
Total Extractable Hydrocarbons	21400		463		ug/L	1		OA-2	Total/NA

Client Sample ID: MW-118 — Lab Sample ID: 310-77999-6

No Detections.

Client Sample ID: MW-117 — Lab Sample ID: 310-77999-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	8390		5.00		ug/L	10		8260C	Total/NA
Ethylbenzene	3740		10.0		ug/L	10		8260C	Total/NA
Toluene	29800		100		ug/L	100		8260C	Total/NA
Xylenes, Total	12100		300		ug/L	100		8260C	Total/NA
Gasoline	153000		1390		ug/L	5		OA-2	Total/NA
Total Extractable Hydrocarbons	39800		463		ug/L	1		OA-2	Total/NA

Client Sample ID: MW-122 — Lab Sample ID: 310-77999-8

No Detections.

Client Sample ID: MW-103 — Lab Sample ID: 310-77999-9

No Detections.

Client Sample ID: Hancock Well — Lab Sample ID: 310-77999-10

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: MW-21
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-1
Matrix: Ground Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.512		0.500		ug/L			04/12/16 14:28	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 14:28	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 14:28	1
Toluene	<1.00		1.00		ug/L			04/12/16 14:28	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*04/12/16 14:28*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*04/12/16 14:28*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/12/16 14:28*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	2240		278		ug/L		04/08/16 20:20	04/12/16 15:15	1
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 15:15	1
Waste Oil	<278		278		ug/L		04/08/16 20:20	04/12/16 15:15	1
Total Extractable Hydrocarbons	654		463		ug/L		04/08/16 20:20	04/12/16 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*102*		*45 - 140*	*04/08/16 20:20*	*04/12/16 15:15*	*1*

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: MW-6
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-2
Matrix: Ground Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 14:57	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 14:57	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 14:57	1
Toluene	<1.00		1.00		ug/L			04/12/16 14:57	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*04/12/16 14:57*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*04/12/16 14:57*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/12/16 14:57*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		04/08/16 20:20	04/12/16 15:30	1
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 15:30	1
Waste Oil	<278		278		ug/L		04/08/16 20:20	04/12/16 15:30	1
Total Extractable Hydrocarbons	<463		463		ug/L		04/08/16 20:20	04/12/16 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*106*		*45 - 140*	*04/08/16 20:20*	*04/12/16 15:30*	*1*

Client Sample ID: MW-16
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-3
Matrix: Ground Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 15:26	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 15:26	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 15:26	1
Toluene	<1.00		1.00		ug/L			04/12/16 15:26	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*04/12/16 15:26*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*04/12/16 15:26*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/12/16 15:26*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		04/08/16 20:20	04/12/16 15:45	1
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 15:45	1
Waste Oil	<278		278		ug/L		04/08/16 20:20	04/12/16 15:45	1
Total Extractable Hydrocarbons	<463		463		ug/L		04/08/16 20:20	04/12/16 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*103*		*45 - 140*	*04/08/16 20:20*	*04/12/16 15:45*	*1*

Client Sample ID: MW-120
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-4
Matrix: Ground Water
Sampler Phone Number: 712-766-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 15:55	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 15:55	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 15:55	1
Toluene	<1.00		1.00		ug/L			04/12/16 15:55	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*04/12/16 15:55*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*04/12/16 15:55*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/12/16 15:55*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		04/08/16 20:20	04/12/16 16:01	1
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 16:01	1
Waste Oil	<278		278		ug/L		04/08/16 20:20	04/12/16 16:01	1
Total Extractable Hydrocarbons	<463		463		ug/L		04/08/16 20:20	04/12/16 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*91*		*45 - 140*	*04/08/16 20:20*	*04/12/16 16:01*	*1*

Client Sample ID: MW-119R
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-5
Matrix: Ground Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	154		0.500		ug/L			04/12/16 20:12	1
Ethylbenzene	1100		100		ug/L			04/13/16 17:21	100
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 20:12	1
Toluene	28.8		1.00		ug/L			04/12/16 20:12	1
Xylenes, Total	1660		300		ug/L			04/13/16 17:21	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*04/12/16 20:12*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*04/13/16 17:21*	*100*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*04/12/16 20:12*	*1*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*04/13/16 17:21*	*100*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/12/16 20:12*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/13/16 17:21*	*100*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	80200		278		ug/L		04/08/16 20:20	04/12/16 16:16	1
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 16:16	1
Waste Oil	3190		278		ug/L		04/08/16 20:20	04/12/16 16:16	1
Total Extractable Hydrocarbons	21400		463		ug/L		04/08/16 20:20	04/12/16 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*88*		*45 - 140*	*04/08/16 20:20*	*04/12/16 16:16*	*1*

Client Sample ID: MW-118
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-6
Matrix: Ground Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 16:24	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 16:24	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 16:24	1
Toluene	<1.00		1.00		ug/L			04/12/16 16:24	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/12/16 16:24*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*04/12/16 16:24*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/12/16 16:24*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		04/08/16 20:20	04/12/16 16:31	1
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 16:31	1
Waste Oil	<278		278		ug/L		04/08/16 20:20	04/12/16 16:31	1
Total Extractable Hydrocarbons	<463		463		ug/L		04/08/16 20:20	04/12/16 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*99*		*45 - 140*	*04/08/16 20:20*	*04/12/16 16:31*	*1*

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: MW-117
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-7
Matrix: Ground Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8390		5.00		ug/L			04/12/16 17:34	10
Ethylbenzene	3740		10.0		ug/L			04/12/16 17:34	10
Methyl tert-butyl ether	<10.0		10.0		ug/L			04/12/16 17:34	10
Toluene	29800		100		ug/L			04/13/16 17:42	100
Xylenes, Total	12100		300		ug/L			04/13/16 17:42	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*04/12/16 17:34*	*10*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*04/13/16 17:42*	*100*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*04/12/16 17:34*	*10*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*04/13/16 17:42*	*100*
Toluene-d8 (Surr)	*94*		*80 - 120*		*04/12/16 17:34*	*10*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/13/16 17:42*	*100*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	153000		1390		ug/L		04/08/16 20:20	04/14/16 13:11	5
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 16:46	1
Waste Oil	<278		278		ug/L		04/08/16 20:20	04/12/16 16:46	1
Total Extractable Hydrocarbons	39800		463		ug/L		04/08/16 20:20	04/12/16 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*106*		*45 - 140*	*04/08/16 20:20*	*04/12/16 16:46*	*1*

Client Sample ID: MW-122
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-8
Matrix: Ground Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 16:53	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 16:53	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 16:53	1
Toluene	<1.00		1.00		ug/L			04/12/16 16:53	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*04/12/16 16:53*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*04/12/16 16:53*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/12/16 16:53*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		04/08/16 20:20	04/12/16 17:02	1
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 17:02	1
Waste Oil	<278		278		ug/L		04/08/16 20:20	04/12/16 17:02	1
Total Extractable Hydrocarbons	<463		463		ug/L		04/08/16 20:20	04/12/16 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*110*		*45 - 140*	*04/08/16 20:20*	*04/12/16 17:02*	*1*

Client Sample ID: MW-103
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-9
Matrix: Ground Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 17:21	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 17:21	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 17:21	1
Toluene	<1.00		1.00		ug/L			04/12/16 17:21	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 17:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/12/16 17:21*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*04/12/16 17:21*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/12/16 17:21*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		04/08/16 20:20	04/12/16 17:17	1
Diesel	<278		278		ug/L		04/08/16 20:20	04/12/16 17:17	1
Waste Oil	<278		278		ug/L		04/08/16 20:20	04/12/16 17:17	1
Total Extractable Hydrocarbons	<463		463		ug/L		04/08/16 20:20	04/12/16 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*115*		*45 - 140*	*04/08/16 20:20*	*04/12/16 17:17*	*1*

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: Hancock Well
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-10
Matrix: Drinking Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 17:50	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 17:50	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 17:50	1
Toluene	<1.00		1.00		ug/L			04/12/16 17:50	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*04/12/16 17:50*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*04/12/16 17:50*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/12/16 17:50*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<326		326		ug/L		04/08/16 15:28	04/13/16 19:06	1
Diesel	<326		326		ug/L		04/08/16 15:28	04/13/16 19:06	1
Waste Oil	<326		326		ug/L		04/08/16 15:28	04/13/16 19:06	1
Total Extractable Hydrocarbons	<543		543		ug/L		04/08/16 15:28	04/13/16 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*105*		*40 - 135*	*04/08/16 15:28*	*04/13/16 19:06*	*1*

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: School Well
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-11
Matrix: Drinking Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 18:19	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 18:19	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 18:19	1
Toluene	<1.00		1.00		ug/L			04/12/16 18:19	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/12/16 18:19*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*04/12/16 18:19*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/12/16 18:19*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<303		303		ug/L		04/08/16 15:28	04/13/16 19:22	1
Diesel	<303		303		ug/L		04/08/16 15:28	04/13/16 19:22	1
Waste Oil	<303		303		ug/L		04/08/16 15:28	04/13/16 19:22	1
Total Extractable Hydrocarbons	<505		505		ug/L		04/08/16 15:28	04/13/16 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*99*		*40 - 135*	*04/08/16 15:28*	*04/13/16 19:22*	*1*

Client Sample ID: Church Well
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-12
Matrix: Drinking Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 18:47	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 18:47	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 18:47	1
Toluene	<1.00		1.00		ug/L			04/12/16 18:47	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/12/16 18:47*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*04/12/16 18:47*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/12/16 18:47*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<306		306		ug/L		04/08/16 15:28	04/13/16 19:37	1
Diesel	<306		306		ug/L		04/08/16 15:28	04/13/16 19:37	1
Waste Oil	<306		306		ug/L		04/08/16 15:28	04/13/16 19:37	1
Total Extractable Hydrocarbons	<510		510		ug/L		04/08/16 15:28	04/13/16 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*94*		*40 - 135*	*04/08/16 15:28*	*04/13/16 19:37*	*1*

Client Sample ID: Lloyd Well
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-13
Matrix: Drinking Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 19:16	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 19:16	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 19:16	1
Toluene	<1.00		1.00		ug/L			04/12/16 19:16	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*04/12/16 19:16*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*04/12/16 19:16*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/12/16 19:16*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<306		306		ug/L		04/08/16 15:28	04/13/16 19:52	1
Diesel	<306		306		ug/L		04/08/16 15:28	04/13/16 19:52	1
Waste Oil	<306		306		ug/L		04/08/16 15:28	04/13/16 19:52	1
Total Extractable Hydrocarbons	<510		510		ug/L		04/08/16 15:28	04/13/16 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*97*		*40 - 135*	*04/08/16 15:28*	*04/13/16 19:52*	*1*

Client Sample ID: Benjamin Well
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-14
Matrix: Drinking Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 19:44	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 19:44	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 19:44	1
Toluene	<1.00		1.00		ug/L			04/12/16 19:44	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*04/12/16 19:44*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*04/12/16 19:44*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/12/16 19:44*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<306		306		ug/L		04/08/16 15:28	04/13/16 20:08	1
Diesel	<306		306		ug/L		04/08/16 15:28	04/13/16 20:08	1
Waste Oil	<306		306		ug/L		04/08/16 15:28	04/13/16 20:08	1
Total Extractable Hydrocarbons	<510		510		ug/L		04/08/16 15:28	04/13/16 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*100*		*40 - 135*	*04/08/16 15:28*	*04/13/16 20:08*	*1*

Client Sample ID: East Association Well
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-15
Matrix: Drinking Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/13/16 03:18	1
Ethylbenzene	<1.00		1.00		ug/L			04/13/16 03:18	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/13/16 03:18	1
Toluene	<1.00		1.00		ug/L			04/13/16 03:18	1
Xylenes, Total	<3.00		3.00		ug/L			04/13/16 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*04/13/16 03:18*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*04/13/16 03:18*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/13/16 03:18*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<300		300		ug/L		04/08/16 15:28	04/13/16 20:24	1
Diesel	<300		300		ug/L		04/08/16 15:28	04/13/16 20:24	1
Waste Oil	<300		300		ug/L		04/08/16 15:28	04/13/16 20:24	1
Total Extractable Hydrocarbons	<500		500		ug/L		04/08/16 15:28	04/13/16 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*95*		*40 - 135*	*04/08/16 15:28*	*04/13/16 20:24*	*1*

Client Sample ID: West Association Well
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-16
Matrix: Drinking Water
Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/13/16 03:46	1
Ethylbenzene	<1.00		1.00		ug/L			04/13/16 03:46	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/13/16 03:46	1
Toluene	<1.00		1.00		ug/L			04/13/16 03:46	1
Xylenes, Total	<3.00		3.00		ug/L			04/13/16 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*04/13/16 03:46*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*04/13/16 03:46*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/13/16 03:46*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<303		303		ug/L		04/08/16 15:28	04/13/16 20:39	1
Diesel	<303		303		ug/L		04/08/16 15:28	04/13/16 20:39	1
Waste Oil	<303		303		ug/L		04/08/16 15:28	04/13/16 20:39	1
Total Extractable Hydrocarbons	<505		505		ug/L		04/08/16 15:28	04/13/16 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*96*		*40 - 135*	*04/08/16 15:28*	*04/13/16 20:39*	*1*

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: Bank Well
Date Collected: 04/06/16 00:00
Date Received: 04/08/16 08:45
Sampler Name: Grant Nelson

Lab Sample ID: 310-77999-17
Matrix: Drinking Water

Sampler Phone Number: 712-756-4732

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/13/16 04:14	1
Ethylbenzene	<1.00		1.00		ug/L			04/13/16 04:14	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/13/16 04:14	1
Toluene	<1.00		1.00		ug/L			04/13/16 04:14	1
Xylenes, Total	<3.00		3.00		ug/L			04/13/16 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*04/13/16 04:14*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*04/13/16 04:14*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/13/16 04:14*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<303		303		ug/L		04/08/16 15:28	04/13/16 20:54	1
Diesel	<303		303		ug/L		04/08/16 15:28	04/13/16 20:54	1
Waste Oil	<303		303		ug/L		04/08/16 15:28	04/13/16 20:54	1
Total Extractable Hydrocarbons	<505		505		ug/L		04/08/16 15:28	04/13/16 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*92*		*40 - 135*	*04/08/16 15:28*	*04/13/16 20:54*	*1*

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB (80-120)	DBFM (80-120)	TOL (80-120)
310-77999-10	Hancock Well	99	101	104
310-77999-11	School Well	100	98	101
310-77999-12	Church Well	100	102	103
310-77999-13	Lloyd Well	96	101	102
310-77999-14	Benjamin Well	97	102	102
310-77999-15	East Association Well	101	103	103
310-77999-15 MS	East Association Well	97	102	103
310-77999-15 MSD	East Association Well	99	100	102
310-77999-16	West Association Well	100	100	103
310-77999-17	Bank Well	99	102	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB (80-120)	DBFM (80-120)	TOL (80-120)
310-77999-1	MW-21	101	104	103
310-77999-2	MW-6	98	97	103
310-77999-3	MW-16	99	99	104
310-77999-4	MW-120	101	102	102
310-77999-5	MW-119R	95	100	104
310-77999-5	MW-119R	103	92	98
310-77999-6	MW-118	100	101	102
310-77999-7	MW-117	98	93	94
310-77999-7	MW-117	99	93	95
310-77999-8	MW-122	101	101	102
310-77999-9	MW-103	100	101	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB (80-120)	DBFM (80-120)	TOL (80-120)
LCS 310-123770/7	Lab Control Sample	99	103	103
LCS 310-123774/7	Lab Control Sample	97	100	97
LCS 310-123799/7	Lab Control Sample	99	103	103
LCS 310-123927/7	Lab Control Sample	96	100	96
MB 310-123770/6	Method Blank	99	102	103

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) BFB (80-120)	DBFM (80-120)	TOL (80-120)
MB 310-123774/6	Method Blank	114	91	98
MB 310-123799/6	Method Blank	97	104	104
MB 310-123927/6	Method Blank	107	99	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) OTC (40-135)
310-77999-10	Hancock Well	105
310-77999-11	School Well	99
310-77999-12	Church Well	94
310-77999-13	Lloyd Well	97
310-77999-14	Benjamin Well	100
310-77999-15	East Association Well	95
310-77999-16	West Association Well	96
310-77999-17	Bank Well	92

Surrogate Legend

OTC = n-Octacosane

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) OTC (45-140)
310-77999-1	MW-21	102
310-77999-2	MW-6	106
310-77999-3	MW-16	103
310-77999-4	MW-120	91
310-77999-5	MW-119R	88
310-77999-6	MW-118	99
310-77999-7	MW-117	106
310-77999-8	MW-122	110
310-77999-9	MW-103	115

Surrogate Legend

OTC = n-Octacosane

Surrogate Summary

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTC (40-135)
LCS 310-123498/2-A	Lab Control Sample	99
LCSD 310-123498/3-A	Lab Control Sample Dup	91
MB 310-123498/1-A	Method Blank	91

Surrogate Legend

OTC = n-Octacosane

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTC (45-140)
LCS 310-123522/2-A	Lab Control Sample	94
LCSD 310-123522/3-A	Lab Control Sample Dup	110
MB 310-123522/1-A	Method Blank	118

Surrogate Legend

OTC = n-Octacosane

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-123770/6
Matrix: Water
Analysis Batch: 123770

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 11:09	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 11:09	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 11:09	1
Toluene	<1.00		1.00		ug/L			04/12/16 11:09	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 11:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*04/12/16 11:09*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*04/12/16 11:09*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/12/16 11:09*	*1*

Lab Sample ID: LCS 310-123770/7
Matrix: Water
Analysis Batch: 123770

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	19.83		ug/L		99	70 - 125
Ethylbenzene	20.0	20.82		ug/L		104	70 - 125
Methyl tert-butyl ether	20.0	20.14		ug/L		101	70 - 125
Toluene	20.0	20.16		ug/L		101	75 - 125
Xylenes, Total	40.0	40.04		ug/L		100	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 310-123774/6
Matrix: Water
Analysis Batch: 123774

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 10:30	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 10:30	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 10:30	1
Toluene	<1.00		1.00		ug/L			04/12/16 10:30	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 10:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*80 - 120*		*04/12/16 10:30*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*04/12/16 10:30*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/12/16 10:30*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-123774/7
Matrix: Water
Analysis Batch: 123774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	21.40		ug/L		107	70 - 125
Ethylbenzene	20.0	20.88		ug/L		104	70 - 125
Methyl tert-butyl ether	20.0	22.04		ug/L		110	70 - 125
Toluene	20.0	20.05		ug/L		100	75 - 125
Xylenes, Total	40.0	39.15		ug/L		98	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: MB 310-123799/6
Matrix: Water
Analysis Batch: 123799

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/12/16 23:59	1
Ethylbenzene	<1.00		1.00		ug/L			04/12/16 23:59	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/12/16 23:59	1
Toluene	<1.00		1.00		ug/L			04/12/16 23:59	1
Xylenes, Total	<3.00		3.00		ug/L			04/12/16 23:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*04/12/16 23:59*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*04/12/16 23:59*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*04/12/16 23:59*	*1*

Lab Sample ID: LCS 310-123799/7
Matrix: Water
Analysis Batch: 123799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	20.61		ug/L		103	70 - 125
Ethylbenzene	20.0	21.50		ug/L		107	70 - 125
Methyl tert-butyl ether	20.0	21.62		ug/L		108	70 - 125
Toluene	20.0	21.56		ug/L		108	75 - 125
Xylenes, Total	40.0	42.43		ug/L		106	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-77999-15 MS
Matrix: Drinking Water
Analysis Batch: 123799

Client Sample ID: East Association Well
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.500		20.0	18.11		ug/L		91	50 - 135
Ethylbenzene	<1.00		20.0	18.91		ug/L		95	45 - 125
Methyl tert-butyl ether	<1.00		20.0	18.59		ug/L		93	55 - 130
Toluene	<1.00		20.0	19.18		ug/L		95	45 - 130
Xylenes, Total	<3.00		40.0	37.87		ug/L		95	45 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: 310-77999-15 MSD
Matrix: Drinking Water
Analysis Batch: 123799

Client Sample ID: East Association Well
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.500		20.0	18.03		ug/L		90	50 - 135	0	15
Ethylbenzene	<1.00		20.0	18.87		ug/L		94	45 - 125	0	20
Methyl tert-butyl ether	<1.00		20.0	18.13		ug/L		91	55 - 130	3	15
Toluene	<1.00		20.0	18.88		ug/L		93	45 - 130	2	15
Xylenes, Total	<3.00		40.0	36.28		ug/L		91	45 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 310-123927/6
Matrix: Water
Analysis Batch: 123927

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			04/13/16 09:54	1
Ethylbenzene	<1.00		1.00		ug/L			04/13/16 09:54	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			04/13/16 09:54	1
Toluene	<1.00		1.00		ug/L			04/13/16 09:54	1
Xylenes, Total	<3.00		3.00		ug/L			04/13/16 09:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*04/13/16 09:54*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*04/13/16 09:54*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/13/16 09:54*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-123927/7
Matrix: Water
Analysis Batch: 123927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	17.74		ug/L		89	70 - 125
Ethylbenzene	20.0	17.11		ug/L		86	70 - 125
Methyl tert-butyl ether	20.0	18.49		ug/L		92	70 - 125
Toluene	20.0	16.03		ug/L		80	75 - 125
Xylenes, Total	40.0	32.52		ug/L		81	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*96*		*80 - 120*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 310-123498/1-A
Matrix: Water
Analysis Batch: 124073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123498

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<300		300		ug/L		04/08/16 15:28	04/13/16 18:20	1
Diesel	<300		300		ug/L		04/08/16 15:28	04/13/16 18:20	1
Waste Oil	<300		300		ug/L		04/08/16 15:28	04/13/16 18:20	1
Total Extractable Hydrocarbons	<500		500		ug/L		04/08/16 15:28	04/13/16 18:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*91*		*40 - 135*	*04/08/16 15:28*	*04/13/16 18:20*	*1*

Lab Sample ID: LCS 310-123498/2-A
Matrix: Water
Analysis Batch: 124073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123498

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel	2000	1719		ug/L		86	45 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*99*		*40 - 135*

Lab Sample ID: LCSD 310-123498/3-A
Matrix: Water
Analysis Batch: 124073

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123498

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel	2000	1532		ug/L		77	45 - 120	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane	*91*		*40 - 135*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: MB 310-123522/1-A
Matrix: Water
Analysis Batch: 123824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123522

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<300		300		ug/L		04/08/16 20:20	04/12/16 13:41	1
Diesel	<300		300		ug/L		04/08/16 20:20	04/12/16 13:41	1
Waste Oil	<300		300		ug/L		04/08/16 20:20	04/12/16 13:41	1
Total Extractable Hydrocarbons	<500		500		ug/L		04/08/16 20:20	04/12/16 13:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*118*		*45 - 140*	*04/08/16 20:20*	*04/12/16 13:41*	*1*

Lab Sample ID: LCS 310-123522/2-A
Matrix: Water
Analysis Batch: 123824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel	2000	1501		ug/L		75	30 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*94*		*45 - 140*

Lab Sample ID: LCSD 310-123522/3-A
Matrix: Water
Analysis Batch: 123824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 123522

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel	2000	1595		ug/L		80	30 - 125	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane	*110*		*45 - 140*

GC/MS VOA

Analysis Batch: 123770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-1	MW-21	Total/NA	Ground Water	8260C	
310-77999-2	MW-6	Total/NA	Ground Water	8260C	
310-77999-3	MW-16	Total/NA	Ground Water	8260C	
310-77999-4	MW-120	Total/NA	Ground Water	8260C	
310-77999-5	MW-119R	Total/NA	Ground Water	8260C	
310-77999-6	MW-118	Total/NA	Ground Water	8260C	
310-77999-8	MW-122	Total/NA	Ground Water	8260C	
310-77999-9	MW-103	Total/NA	Ground Water	8260C	
310-77999-10	Hancock Well	Total/NA	Drinking Water	8260C	
310-77999-11	School Well	Total/NA	Drinking Water	8260C	
310-77999-12	Church Well	Total/NA	Drinking Water	8260C	
310-77999-13	Lloyd Well	Total/NA	Drinking Water	8260C	
310-77999-14	Benjamin Well	Total/NA	Drinking Water	8260C	
LCS 310-123770/7	Lab Control Sample	Total/NA	Water	8260C	
MB 310-123770/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 123774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-7	MW-117	Total/NA	Ground Water	8260C	
LCS 310-123774/7	Lab Control Sample	Total/NA	Water	8260C	
MB 310-123774/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 123799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-15	East Association Well	Total/NA	Drinking Water	8260C	
310-77999-15 MS	East Association Well	Total/NA	Drinking Water	8260C	
310-77999-15 MSD	East Association Well	Total/NA	Drinking Water	8260C	
310-77999-16	West Association Well	Total/NA	Drinking Water	8260C	
310-77999-17	Bank Well	Total/NA	Drinking Water	8260C	
LCS 310-123799/7	Lab Control Sample	Total/NA	Water	8260C	
MB 310-123799/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 123927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-5	MW-119R	Total/NA	Ground Water	8260C	
310-77999-7	MW-117	Total/NA	Ground Water	8260C	
LCS 310-123927/7	Lab Control Sample	Total/NA	Water	8260C	
MB 310-123927/6	Method Blank	Total/NA	Water	8260C	

GC Semi VOA

Prep Batch: 123498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-10	Hancock Well	Total/NA	Drinking Water	3510C	
310-77999-11	School Well	Total/NA	Drinking Water	3510C	
310-77999-12	Church Well	Total/NA	Drinking Water	3510C	
310-77999-13	Lloyd Well	Total/NA	Drinking Water	3510C	
310-77999-14	Benjamin Well	Total/NA	Drinking Water	3510C	
310-77999-15	East Association Well	Total/NA	Drinking Water	3510C	
310-77999-16	West Association Well	Total/NA	Drinking Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 123498 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-17	Bank Well	Total/NA	Drinking Water	3510C	
LCS 310-123498/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-123498/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 310-123498/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 123522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-1	MW-21	Total/NA	Ground Water	3510C	
310-77999-2	MW-6	Total/NA	Ground Water	3510C	
310-77999-3	MW-16	Total/NA	Ground Water	3510C	
310-77999-4	MW-120	Total/NA	Ground Water	3510C	
310-77999-5	MW-119R	Total/NA	Ground Water	3510C	
310-77999-6	MW-118	Total/NA	Ground Water	3510C	
310-77999-7	MW-117	Total/NA	Ground Water	3510C	
310-77999-8	MW-122	Total/NA	Ground Water	3510C	
310-77999-9	MW-103	Total/NA	Ground Water	3510C	
LCS 310-123522/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-123522/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 310-123522/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 123824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-1	MW-21	Total/NA	Ground Water	OA-2	123522
310-77999-2	MW-6	Total/NA	Ground Water	OA-2	123522
310-77999-3	MW-16	Total/NA	Ground Water	OA-2	123522
310-77999-4	MW-120	Total/NA	Ground Water	OA-2	123522
310-77999-5	MW-119R	Total/NA	Ground Water	OA-2	123522
310-77999-6	MW-118	Total/NA	Ground Water	OA-2	123522
310-77999-7	MW-117	Total/NA	Ground Water	OA-2	123522
310-77999-8	MW-122	Total/NA	Ground Water	OA-2	123522
310-77999-9	MW-103	Total/NA	Ground Water	OA-2	123522
LCS 310-123522/2-A	Lab Control Sample	Total/NA	Water	OA-2	123522
LCSD 310-123522/3-A	Lab Control Sample Dup	Total/NA	Water	OA-2	123522
MB 310-123522/1-A	Method Blank	Total/NA	Water	OA-2	123522

Analysis Batch: 124073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-10	Hancock Well	Total/NA	Drinking Water	OA-2	123498
310-77999-11	School Well	Total/NA	Drinking Water	OA-2	123498
310-77999-12	Church Well	Total/NA	Drinking Water	OA-2	123498
310-77999-13	Lloyd Well	Total/NA	Drinking Water	OA-2	123498
310-77999-14	Benjamin Well	Total/NA	Drinking Water	OA-2	123498
310-77999-15	East Association Well	Total/NA	Drinking Water	OA-2	123498
310-77999-16	West Association Well	Total/NA	Drinking Water	OA-2	123498
310-77999-17	Bank Well	Total/NA	Drinking Water	OA-2	123498
LCS 310-123498/2-A	Lab Control Sample	Total/NA	Water	OA-2	123498
LCSD 310-123498/3-A	Lab Control Sample Dup	Total/NA	Water	OA-2	123498
MB 310-123498/1-A	Method Blank	Total/NA	Water	OA-2	123498

GC Semi VOA (Continued)

Analysis Batch: 124127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-77999-7	MW-117	Total/NA	Ground Water	OA-2	123522

Client Sample ID: MW-21
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 14:28	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 15:15	LLS	TAL CF

Client Sample ID: MW-6
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 14:57	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 15:30	LLS	TAL CF

Client Sample ID: MW-16
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 15:26	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 15:45	LLS	TAL CF

Client Sample ID: MW-120
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 15:55	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 16:01	LLS	TAL CF

Client Sample ID: MW-119R
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	123927	04/13/16 17:21	TRZ	TAL CF
Total/NA	Analysis	8260C		1	123770	04/12/16 20:12	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 16:16	LLS	TAL CF

Client Sample ID: MW-118
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-6
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 16:24	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 16:31	LLS	TAL CF

Client Sample ID: MW-117
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-7
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	123774	04/12/16 17:34	TRZ	TAL CF
Total/NA	Analysis	8260C		100	123927	04/13/16 17:42	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 16:46	LLS	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		5	124127	04/14/16 13:11	LLS	TAL CF

Client Sample ID: MW-122
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-8
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 16:53	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 17:02	LLS	TAL CF

Client Sample ID: MW-103
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-9
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 17:21	TRZ	TAL CF
Total/NA	Prep	3510C			123522	04/08/16 20:20	HTM	TAL CF
Total/NA	Analysis	OA-2		1	123824	04/12/16 17:17	LLS	TAL CF

Client Sample ID: Hancock Well
Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Lab Sample ID: 310-77999-10
Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 17:50	TRZ	TAL CF
Total/NA	Prep	3510C			123498	04/08/16 15:28	HTM	TAL CF
Total/NA	Analysis	OA-2		1	124073	04/13/16 19:06	LLS	TAL CF

Lab Chronicle

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: School Well

Lab Sample ID: 310-77999-11

Date Collected: 04/05/16 00:00
Matrix: Drinking Water
Date Received: 04/08/16 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 18:19	TRZ	TAL CF
Total/NA	Prep	3510C			123498	04/08/16 15:28	HTM	TAL CF
Total/NA	Analysis	OA-2		1	124073	04/13/16 19:22	LLS	TAL CF

Client Sample ID: Church Well

Lab Sample ID: 310-77999-12

Date Collected: 04/05/16 00:00
Matrix: Drinking Water
Date Received: 04/08/16 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 18:47	TRZ	TAL CF
Total/NA	Prep	3510C			123498	04/08/16 15:28	HTM	TAL CF
Total/NA	Analysis	OA-2		1	124073	04/13/16 19:37	LLS	TAL CF

Client Sample ID: Lloyd Well

Lab Sample ID: 310-77999-13

Date Collected: 04/05/16 00:00
Matrix: Drinking Water
Date Received: 04/08/16 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 19:16	TRZ	TAL CF
Total/NA	Prep	3510C			123498	04/08/16 15:28	HTM	TAL CF
Total/NA	Analysis	OA-2		1	124073	04/13/16 19:52	LLS	TAL CF

Client Sample ID: Benjamin Well

Lab Sample ID: 310-77999-14

Date Collected: 04/05/16 00:00
Matrix: Drinking Water
Date Received: 04/08/16 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123770	04/12/16 19:44	TRZ	TAL CF
Total/NA	Prep	3510C			123498	04/08/16 15:28	HTM	TAL CF
Total/NA	Analysis	OA-2		1	124073	04/13/16 20:08	LLS	TAL CF

Client Sample ID: East Association Well

Lab Sample ID: 310-77999-15

Date Collected: 04/05/16 00:00
Matrix: Drinking Water
Date Received: 04/08/16 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123799	04/13/16 03:18	TRZ	TAL CF
Total/NA	Prep	3510C			123498	04/08/16 15:28	HTM	TAL CF
Total/NA	Analysis	OA-2		1	124073	04/13/16 20:24	LLS	TAL CF

Lab Chronicle

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Client Sample ID: West Association Well

Lab Sample ID: 310-77999-16

Date Collected: 04/05/16 00:00
Date Received: 04/08/16 08:45

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123799	04/13/16 03:46	TRZ	TAL CF
Total/NA	Prep	3510C			123498	04/08/16 15:28	HTM	TAL CF
Total/NA	Analysis	OA-2		1	124073	04/13/16 20:39	LLS	TAL CF

Client Sample ID: Bank Well

Lab Sample ID: 310-77999-17

Date Collected: 04/06/16 00:00
Date Received: 04/08/16 08:45

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	123799	04/13/16 04:14	TRZ	TAL CF
Total/NA	Prep	3510C			123498	04/08/16 15:28	HTM	TAL CF
Total/NA	Analysis	OA-2		1	124073	04/13/16 20:54	LLS	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-16
Illinois	NELAP	5	200024	11-29-16
Iowa	State Program	7	007	12-01-15 *
Kansas	NELAP	7	E-10341	01-31-15 *
Minnesota	NELAP	5	019-999-319	12-31-16
Minnesota (Petrofund)	State Program	1	3349	08-22-16
North Dakota	State Program	8	R-186	09-29-16
Oregon	NELAP	10	IA100001	09-29-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: Northwest Environmental Services Inc
Project/Site: Climbing Hill

TestAmerica Job ID: 310-77999-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CF
OA-2	Iowa - Extractable Petroleum Hydrocarbons (GC)	Iowa DNR	TAL CF

Protocol References:

Iowa DNR = Iowa Department of Natural Resources

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

310-77999 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: NW ENVIRONMENTAL

City/State: ALTON IA | Project: CLIMBING HILL

Receipt Information

Date/Time Received: 4/8/16 0845 | Received By: RM

Delivery Type: ☑ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ TA Courier ☐ TA Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes ☐ No	*If yes:* Cooler ID:	5-16
Multiple Coolers?	☑ Yes ☐ No	*If yes:* Cooler #	1 of 2
Cooler Custody Seals Present?	☑ Yes ☐ No	*If yes:* Cooler custody seals intact?	☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☑ No	*If yes:* Sample custody seals intact?	☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☑ No	*If yes:* Which VOA samples are in cooler?	↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Temperature Blank? ☑ Yes ☐ No ID & Bottle Type:

NOTE: If yes, use temp blank for measurement. If no, specify sample ID(s) and bottle type used to take measurement.

Thermometer ID:	H	Correction Factor (°C):	+0.1
Uncorrected Temp (°C):	5.3	Corrected Temp (°C):	5.4

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Document: CF-LG-WI-002
Revision: 21
Date: 7/28/2015

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

4/15/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: NW ENVIRONMENTAL

City/State: ALTON CA | Project: CLIMBING HILL

Receipt Information

Date/Time Received: 4/8/16 ~~0930~~ 0820 | Received By: RM

Delivery Type: ☑ UPS ☐ FedEx 0845 ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ TA Courier ☐ TA Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes ☐ No	*If yes:* Cooler ID:	
Multiple Coolers?	☑ Yes ☐ No	*If yes:* Cooler # 2 of 2	
Cooler Custody Seals Present?	☑ Yes ☐ No	*If yes:* Cooler custody seals intact?	☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☑ No	*If yes:* Sample custody seals intact?	☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☑ No	*If yes:* Which VOA samples are in cooler? ↓	

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Temperature Blank? ☑ Yes ☐ No ID & Bottle Type:

NOTE: If yes, use temp blank for measurement. If no, specify sample ID(s) and bottle type used to take measurement.

Thermometer ID: H | Correction Factor (°C): +0.1

Uncorrected Temp (°C): 5.5 | Corrected Temp (°C): 5.6

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: NorthWest Environmental Services, Inc.
Client #: _____
Address: PO Box 401
City/State/Zip Code: Alton, IA 51003
Project Manager: 712-756-4732
Email Address: nwest@midlands.net
Telephone Number: _____ Fax: _____
Sampler Name: (Print Name) Grant Nelson
Sampler Signature: [signature]

Project Name: Climbing Hill
Project #: _____
Site/Location ID: Climbing Hill State: IA
Report To: _____
Invoice To: _____
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify, Other	Preservation & # of Containers: HNO_3	HCl OA-1	NaOH	H_2SO_4	Methanol	None OA-2	Other (Specify)	Analyze For: OA-1 (BTEX)	GCMS (MTBE)	OA-2 (TEH)							REMARKS
MW-21	4/5/16				GW		✓				✓		✓	✓	✓							
MW-6							✓				✓		✓	✓	✓							
MW-16							✓				✓		✓	✓	✓							
MW-120							✓				✓		✓	✓	✓							
MW-119R							✓				✓		✓	✓	✓							
MW-118							✓				✓		✓	✓	✓							
MW-117							✓				✓		✓	✓	✓							
MW-122							✓				✓		✓	✓	✓							
MW-103							✓				✓		✓	✓	✓							

Special Instructions:

LABORATORY COMMENTS:

Relinquished By: [signature]	Date:	Time:	Received By: [signature]	Date: 4/8/16	Time: 845
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

Page 1 of 2

4/15/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone 319-277-2401 or 800-750-2401
Fax 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: NorthWest Environmental Services, Inc.
Client #: _____
Address: PO Box 401
City/State/Zip Code: Alton, IA 51003
Project Manager: 712-756-4732
Email Address: nwest@midlands.net
Telephone Number: _____ Fax: _____
Sampler Name: (Print Name) Grant Nelson
Sampler Signature: [signature]

Project Name: Climbing Hill
Project #: /
Site/Location ID: Climbing Hill State: IA
Report To: _____
Invoice To: _____
Quote #: _____ PO#: _____

TAT: X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)
Email Results: (Y) N

Matrix: SL - Sludge DW - Drinking Water; GW - Groundwater S - Soil/Solid; WW - Wastewater Specify, Other

Preservation & # of Containers

Analyze For:

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify, Other	HNO_3	HCl OA-1	NaOH	H_2SO_4	Methanol	None OA-2	Other (Specify)	OA-1 (BTEX)	C-CMS (MTBE)	OA-2 (TEH)								REMARKS
Hancock Well	4/5/16				DW		✓				✓		✓	✓	✓								
School Well							✓				✓		✓	✓	✓								
Church Well							✓				✓		✓	✓	✓								
Lloyd Well							✓				✓		✓	✓	✓								
Benjamin Well							✓				✓		✓	✓	✓								
East Association Well							✓				✓		✓	✓	✓								
West Association Well	4/5/16						✓				✓		✓	✓	✓								
Bank Well	4/6/16						✓				✓		✓	✓	✓								

Special Instructions:

LABORATORY COMMENTS:

Relinquished By: [signature]	Date:	Time:	Received By: [signature]	Date: 4/8/16	Time: 8:45
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

Page 2 of 2

Login Sample Receipt Checklist

Client: Northwest Environmental Services Inc

Job Number: 310-77999-1

Login Number: 77999
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX 12

DOCUMENTATION

Well Search

Print | Help |

Well Search Report

Subject: Program ID: 8LTU14
Site Name: Former Gas Station
Address: 77 Deer Run Trl Climbing Hill IA, 51015
XY UTM Coordinates: 246375/4692364
Search Radius (ft): 1000

Date: 4/20/2016

Included in search	No. of wells	Database
X	1	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	1	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	1	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	11	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	7	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 246374/4692364
Search Radius (ft): 1000

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information

41298	35761	T87NR45W16	Calc. +/- 470 ft	207 (m)	82	11/30/1993	"Benjamin, Pat"	Well type: Private

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
39587	58755	T. 87N., R. 45W., Sec. 16, SE SE SW	GPS	(m)	65		The Barn (Climbing Hill)	Local name: The Barn (Climbing Hill) #1; Status:

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
41339	2412138		35	37 (m)	0		First Trust And Savings, Climbing Hill	PWSID: 9715869; Permit status: Inactive

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
39609	2095449	T. 87 N., R. 45W., Sec. 16, SW, SW, SE, SW, NE	nom. +/- 25m.	218 (m)	122	11/07/2003	,	Status: Retired
39577	2092688	T. 87 N., R. 45W., Sec. 16, SW, SW, SE, SW, NW	nom. +/- 25m.	278 (m)	78	07/26/2003	,	Status: Active
41425	2120756	T. 87 N., R. 45W., Sec. 21, NE, NE, NE, NE, SE	nom. +/- 25m.	171 (m)	1	01/01/1846	BENJAMIN, PAT	Status: Active
41433	2124943	T. 87 N., R. 45W., Sec. 21, NE, NE, NE, SW, NE	nom. +/- 25m.	195 (m)	93	06/23/1987	BORAOWSKI, RUSSELL	Status: Active
41365	2106776	T. 87 N., R. 45W., Sec. 16, SW, SW, SW, SE, NE	nom. +/- 25m.	20 (m)	72	06/10/1974	LITTLE, GARRETT	Status: Plugged
41309	2145826	T. 87 N., R. 45W., Sec. 16, SW, SE, SW, SW, NE	nom. +/- 25m.	298 (m)	75	12/22/2009	PESCHEL, SHANNON	Status: Active Log
41344	2095450	T. 87 N., R. 45W., Sec. 16, SW, SW, SW, NW, SW	nom. +/- 25m.	33 (m)	135	04/01/2004	ROGERS, PATRICK	Status: Retired
41347	2098533	T. 87 N., R. 45W., Sec. 21, NE, NE, NE, NE, SW	nom. +/- 25m.	54 (m)	120	01/01/1985	SCHLEIS, CHARLES	Status: Active

41406	2107458	T. 87 N., R. 45W., Sec. 21, NE, NE, NW, NE, SE	nom. +/- 25m.	255 (m)	100	03/01/2004	SCHULZ, KAY	Status: Active
41313	2124938	T. 87 N., R. 45W., Sec. 16, SW, SW, SE, NW, SE	nom. +/- 25m.	236 (m)	80	08/15/1982	STEINHAUER, PHYLLIS	Status: Active
41410	2094355	T. 87 N., R. 45W., Sec. 22,	nom. +/- 25m.	(m)	200	01/01/1980	WEST, DOUG	Status: Active

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
41292	71441	T. 87 N., R. 45 W., Sec. 16, SE, SE, SE	Calc. +/- 140m.	(m)	unkn	unkn	Hass, Marie	Drilling method: Unknown; Well depth is uncertain
41426	55004	T. 87 N., R. 45 W., Sec. 21, NE, NE, SE	Calc. +/- 140m.	193 (m)	150	1960	Kunze, Robin	Drilling method: Drilled; Known well depth
41424	61313	T. 87 N., R. 45 W., Sec. 21, NE, NE, SE	Calc. +/- 140m.	196 (m)	150	1960	Kunze, Robin	Drilling method: Drilled; Known well depth
41380	9202	T. 87 N., R. 45 W., Sec. 21, NE, NE	Calc. +/- 285m.	148 (m)	90	unkn	McCoy, Marilyn	; Estimated well depth
41382	36343	T. 87 N., R. 45 W., Sec. 21, NE, NE	Calc. +/- 285m.	153 (m)	95	unkn	McCoy, Monty	Drilling method: Unknown; Known well depth
41376	69463	T. 87 N., R. 45 W., Sec. 21, NE, NE	Calc. +/- 285m.	147 (m)	101	1968	Mead, Larry	Drilling method: Drilled; Known well depth
41381	36260	T. 87 N., R. 45 W., Sec. 21, , , , NE, NE	Calc. +/- 285m.	149 (m)	77	unkn	Ross, Margie J.	Drilling method: Drilled;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
41296	28023	T. 87 N., R. 45 W., Sec. 16, SE, SE, SE	Calc. +/- 140m.	203 (m)	250	1/10/2001	Smith, Steve	Primary use: monitoring

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information

No records found from this data source

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information

No records found from this data source

Municipal Wells And Intakes

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information

No records found from this data source

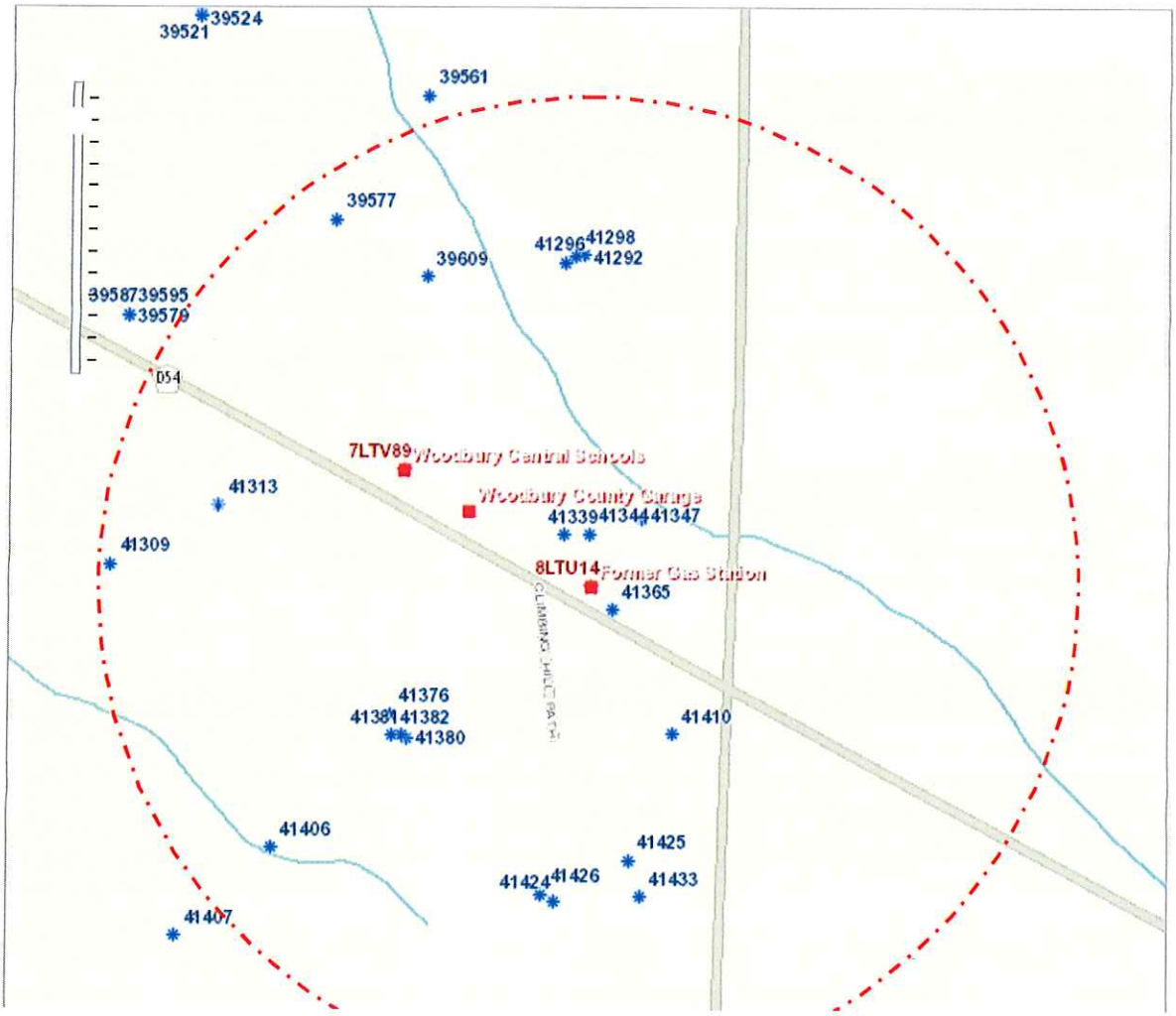
Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information

No records found from this data source

Well Search Buffered Map

Subject: XY UTM Coordinates: 246374/4692364
Search Radius (ft): 1000



Well Search

Print | Help |

Well Search Report

Subject: Program ID: 7LTV89
Site Name: Woodbury Central Schools
Address: 79 HWY D54 W Climbing Hill IA, 51015
XY UTM Coordinates: 246258/4692436
Search Radius (ft): 1000

Date: 4/20/2016

Included in search	No. of wells	Database
X	2	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	1	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	3	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	13	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	8	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 246259/4692437
Search Radius (ft): 1000

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information

41298	35761	T87NR45W16	Calc. +/- 470 ft	169 (m)	82	11/30/1993	"Benjamin, Pat"	Well type: Private
39595	58755	T87NR45W16	GPS	197 (m)	65		The Barn (Climbing Hill)	Well type: Public Access

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
39587	58755	T. 87N., R. 45W., Sec. 16, SE SE SW	GPS	197 (m)	65		The Barn (Climbing Hill)	Local name: The Barn (Climbing Hill) #1; Status:

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
41339	2412138		35	107 (m)	0		First Trust And Savings, Climbing Hill	PWSID: 9715869; Permit status: Inactive
39521	2585885		35	(m)	95		The Barn (climbing Hill)	PWSID: 9715201; Permit status: Inactive
39579	2577673		35	(m)	82		The Barn (climbing Hill)	PWSID: 9715201; Permit status: Inactive

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
39577	2092688	T. 87 N., R. 45W., Sec. 16, SW, SW, SE, SW, NW	nom. +/- 25m.	161 (m)	78	07/26/2003	,	Status: Active
39609	2095449	T. 87 N., R. 45W., Sec. 16, SW, SW, SE, SW, NE	nom. +/- 25m.	120 (m)	122	11/07/2003	,	Status: Retired
41425	2120756	T. 87 N., R. 45W., Sec. 21, NE, NE, NE, NE, SE	nom. +/- 25m.	281 (m)	1	01/01/1846	BENJAMIN, PAT	Status: Active
41433	2124943	T. 87 N., R. 45W., Sec. 21, NE, NE, NE, SW, NE	nom. +/- 25m.	304 (m)	93	06/23/1987	BORAOWSKI, RUSSELL	Status: Active
41303	2135100	T. 87 N., R. 45W., Sec. 16, SW, SE, SW, SE, NE	nom. +/- 25m.	(m)	90	05/01/1992	GOODRICH, DAVID	Status: Active
41365	2106776	T. 87 N., R. 45W., Sec. 16, SW, SW, SW,	nom. +/- 25m.	156 (m)	72	06/10/1974	LITTLE, GARRETT	Status: Plugged

		SE, NE						
41295	2160129	T. 87 N., R. 45W., Sec. 16, SW, SE, SW, NW, SW	nom. +/- 25m.	301 (m)	80	01/01/1930	MUNRO, DON	Status: Plugged
41309	2145826	T. 87 N., R. 45W., Sec. 16, SW, SE, SW, SW, NE	nom. +/- 25m.	192 (m)	75	12/22/2009	PESCHEL, SHANNON	Status: Active Log
41344	2095450	T. 87 N., R. 45W., Sec. 16, SW, SW, SW, NW, SW	nom. +/- 25m.	121 (m)	135	04/01/2004	ROGERS, PATRICK	Status: Retired
41347	2098533	T. 87 N., R. 45W., Sec. 21, NE, NE, NE, NE, SW	nom. +/- 25m.	151 (m)	120	01/01/1985	SCHLEIS, CHARLES	Status: Active
41406	2107458	T. 87 N., R. 45W., Sec. 21, NE, NE, NW, NE, SE	nom. +/- 25m.	249 (m)	100	03/01/2004	SCHULZ, KAY	Status: Active
41313	2124938	T. 87 N., R. 45W., Sec. 16, SW, SW, SE, NW, SE	nom. +/- 25m.	118 (m)	80	08/15/1982	STEINHAUER, PHYLLIS	Status: Active
41410	2094355	T. 87 N., R. 45W., Sec. 22,	nom. +/- 25m.	235 (m)	200	01/01/1980	WEST, DOUG	Status: Active

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
39561	18136	T. 87 N., R. 45 W., Sec. 16, SE, SE	Calc. +/- 285m.	233 (m)	61	1984	Carlson, Barbara	Drilling method: Drilled; Known well depth
41292	71441	T. 87 N., R. 45 W., Sec. 16, SE, SE, SE	Calc. +/- 140m.	173 (m)	unkn	unkn	Hass, Marie	Drilling method: Unknown; Well depth is uncertain
41426	55004	T. 87 N., R. 45 W., Sec. 21, NE, NE, SE	Calc. +/- 140m.	278 (m)	150	1960	Kunze, Robin	Drilling method: Drilled; Known well depth
41424	61313	T. 87 N., R. 45 W., Sec. 21, NE, NE, SE	Calc. +/- 140m.	284 (m)	150	1960	Kunze, Robin	Drilling method: Drilled; Known well depth
41380	9202	T. 87 N., R. 45 W., Sec. 21, NE, NE	Calc. +/- 285m.	167 (m)	90	unkn	McCoy, Marilyn	; Estimated well depth
41382	36343	T. 87 N., R. 45 W., Sec. 21, NE, NE	Calc. +/- 285m.	165 (m)	95	unkn	McCoy, Monty	Drilling method: Unknown; Known well

								depth
41376	69463	T. 87 N., R. 45 W., Sec. 21, NE, NE	Calc. +/- 285m.	152 (m)	101	1968	Mead, Larry	Drilling method: Drilled; Known well depth
41381	36260	T. 87 N., R. 45 W., Sec. 21, , , , NE, NE	Calc. +/- 285m.	165 (m)	77	unkn	Ross, Margie J.	Drilling method: Drilled;

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
41296	28023	T. 87 N., R. 45 W., Sec. 16, SE, SE, SE	Calc. +/- 140m.	162 (m)	250	1/10/2001	Smith, Steve	Primary use: monitoring

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

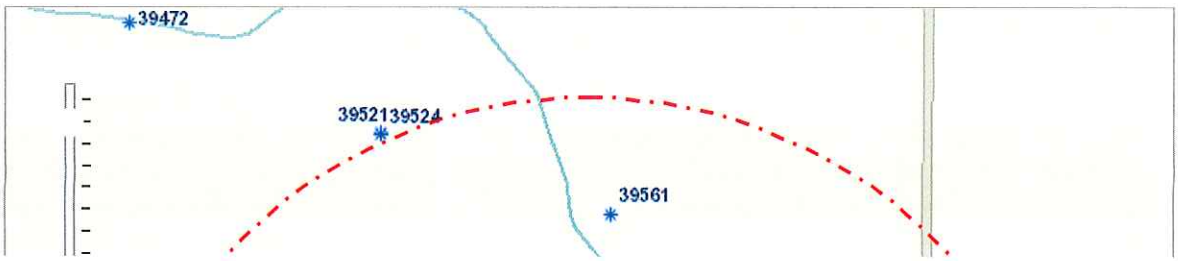
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

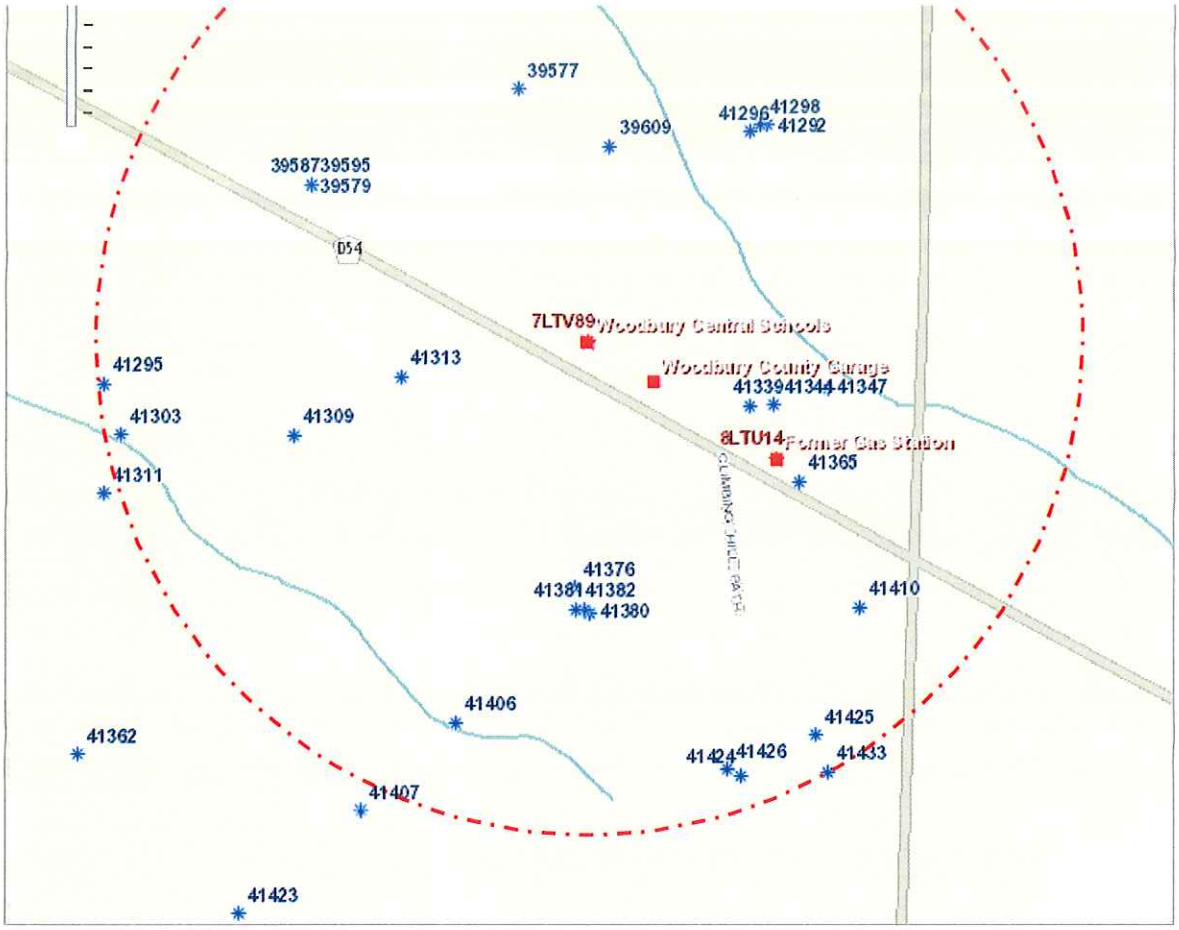
Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 246259/4692437
Search Radius (ft): 1000





Map Notes:

- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.