

# INVITATION TO BID

ITB #4357

Property Demolition, Clean up and Site Restoration at  
3013 Huron River Drive



Due Date: Tuesday, December 2, 2014

Issued By:

City of Ann Arbor  
Procurement Unit  
301 E. Huron Street  
Ann Arbor, MI 48104

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ADVERTISEMENT  
FOR THE  
Demolition, Site Cleanup and Restoration  
CITY OF ANN ARBOR

BID NO. ITB - 4357

Sealed Bids will be received by the City of Ann Arbor Procurement Unit, 301 East Huron Street, Fifth Floor, Larcom City Hall, on or before Thursday, December 2, 2014 at 2:00 p.m. for the Property Demolition, Clean up and Site Restoration at 3013 Huron River Drive. Bids will be publically opened and read aloud at this time.

A pre-bid conference will be held on Thursday, November 13 at 2:00 p.m.. Attendance is highly recommended.

Work to be done includes the demolition of existing house and out buildings, asbestos abatement, abandonment of a water well and crock well, septic tank abandonment, limited lead-impacted soil removal, surficial debris removal, and site restoration of the work areas.

Bid documents, specifications, and addenda, with the exception of the Plans, shall be downloaded by bidders at either of the following websites: Michigan Inter-governmental Trade Network (MITN) [www.mitn.info](http://www.mitn.info) or City of Ann Arbor Purchasing website: [www.A2gov.org](http://www.A2gov.org). It is the bidder's responsibility to verify they have obtained all information before submitting a bid.

Each Bid shall be accompanied by a certified check, or Bid Bond by a recognized surety, in the amount of 5% of the total of the bid price. A Bid, once submitted, becomes the property of the City. In the sole discretion of the City, the City reserves the right to allow a bidder to reclaim submitted documents provided the documents are requested and retrieved no later than 48 hours prior to the scheduled bid opening.

The successful Bidder will be required to furnish satisfactory performance and labor and material bonds in the amount of 100% of the bid price and satisfactory insurance coverage.

Precondition for entering into a Contract with the City of Ann Arbor is compliance with Chapter 112 of Title IX of the Code of the City of Ann Arbor. The successful Bidder may also be required to comply with Chapter 23 of Title I of the Code of the City of Ann Arbor. Further information is outlined in the Contract Documents.

After the time of opening, no Bid may be withdrawn for a period of 90 days. The City reserves the right to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

Technical questions regarding this project may be submitted in writing to Amy Kuras, Park

Planner, at [akuras@a2gov.org](mailto:akuras@a2gov.org). Questions by telephone call are prohibited. The deadline for questions shall be Thursday, November 20 by 2:00 p.m. Questions will not be accepted after this date.

Any further information on bid documents may be obtained from the Procurement Office, (734) 794-6500.

CITY OF ANN ARBOR PROCUREMENT UNIT

## **NOTICE OF PRE-BID CONFERENCE**

A pre-bid conference for this project will be held on Thursday, November 13 at 2:00 p.m. at the site – 3013 West Huron River Drive, Scio Township, Michigan. There is a small pull off area to park vehicles.

Attendance at this conference is highly recommended. Administrative and technical questions regarding this project will be answered at this time. The pre-bid conference is for information only. Any answers furnished will not be official until verified in writing by the Financial Service Area, Procurement Unit. Answers that change or substantially clarify the bid will be affirmed in an addendum.

## **INSTRUCTIONS TO BIDDERS**

### **General**

Work to be done under this Contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents. All work to be done under this Contract is located in or near the City of Ann Arbor.

The City shall make available to all prospective Bidders, prior to receipt of the Bids, access to the area in which the work is to be performed. Advance notice should be given to the Administering Service Area/Unit in cases where access to the site must be arranged by the City.

Any Bid which does not conform fully to these instructions may be rejected.

### **Preparation of Bids**

Bids should be prepared providing a straight-forward, concise description of the Bidder's ability to meet the requirements of the ITB. Bids shall be written in ink or typewritten. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed and dated in ink by the person signing the Bid.

Bids must be submitted ITB pages 1-3 and on the "Bid Forms" provided with each blank properly filled in. If forms are not fully completed it may disqualify the bid.

Each person signing the Bid certifies that he/she is the person in the Bidder's firm/organization responsible for the decision as to the fees being offered in the Bid and has not and will not participated in any action contrary to the terms of this provision.

### **Questions or Clarification on ITB Specifications**

All questions regarding this ITB shall be submitted via email. Emailed questions and inquires will be accepted from any and all prospective Bidders in accordance with the terms and conditions of the ITB.

All questions shall be due on or before Thursday, November 20 by 2:00 p.m. and should be addressed as follows:

Specification/Scope of Work questions emailed to [akuras@a2gov.org](mailto:akuras@a2gov.org)  
Bid Process and HR Compliance questions emailed to [mberryman@a2gov.org](mailto:mberryman@a2gov.org)

### **Addenda**

If it becomes necessary to revise any part of the ITB, notice of the Addendum will be posted to Michigan Inter-governmental Trade Network (MITN) [www.mitn.info](http://www.mitn.info) and/or City of Ann Arbor web site [www.A2gov.org](http://www.A2gov.org) for all parties to download.

Each Bidder must in its Bid, to avoid any miscommunications, acknowledge all addenda which it has received, but the failure of a Bidder to receive, or acknowledge receipt of; any addenda shall not relieve the Bidder of the responsibility for complying with the terms thereof.

The City will not be bound by oral responses to inquiries or written responses other than written addenda.

## **Bid Submission**

All Bids are due and must be delivered to the City of Ann Arbor Procurement Unit on or before Tuesday, December 2, 2014, by 2:00p.m. Bids submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

Each Bidder must submit one (1) original Bid and two (2) Bid copies in a sealed envelope clearly marked: **ITB 4357 - Property Demolition, Clean up and Site Restoration at 3013 Huron River Drive.**

### **Bids must be addressed and delivered to:**

City of Ann Arbor  
Procurement Unit, 5<sup>th</sup> Floor  
301 East Huron Street  
P.O. Box 8647  
Ann Arbor, MI 48107

All Bids received on or before the Due Date will be publicly opened and recorded immediately. No immediate decisions are rendered.

Hand delivered bids will be date/time stamped/signed by the Procurement Unit at the address above in order to be considered. Normal business hours are 9:00 a.m. to 3:00 p.m. Monday through Friday, excluding Holidays. The City will not be liable to any Bidder for any unforeseen circumstances, delivery or postal delays. Postmarking to the Due Date will not substitute for receipt of the Bid. Each Bidder is responsible for submission of their Bid.

Additional time for submission of bids past the stated due date and time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when the City determines in its sole discretion that circumstances warrant it.

## **Award**

The City intends to award a Contract(s) to the lowest responsible Bidder(s). **The contractor must have the following qualifications to be considered for this project and must submit proof of these qualifications with the bid:**

1. Abandonment of water well and crock well must be completed by a Licensed Water Well Drilling Contractor registered in the State of Michigan
2. Demolition must be completed by a licensed residential builder
3. Abatement workers are to be accredited as abatement workers as required by the EPA model accreditation plan (MAP) asbestos abatement working training (40 CFR Part 763, Subpart #, Appendix C) and the requirement set forth by the LARA
4. All workers are required to be certified 40 hour Hazworker Trained (29 CRF 1910.120 (E))

On multi-divisional contracts, separate divisions may be awarded to separate Bidders. The City may also utilize alternatives offered in the Bid Forms, if any, to determine the lowest responsible Bidder on each division, and award multiple divisions to a single Bidder, so that the lowest total cost is achieved for the City. For unit price bids, the Contract will be awarded based upon the unit prices and the lump sum prices stated by the bidder for the work items specified in the bid documents, with consideration given to any alternates selected by the City. If the City determines that the unit price for any item is materially different for the work item bid than either other bidders or the general market, the City, in its sole discretion, in addition to any other right it may have, may reject the bid as not responsible or non-conforming.

The acceptability of major subcontractors will be considered in determining if a Bidder is responsible. In comparing Bids, the City will give consideration to alternate Bids for items listed in the bid forms.

All key staff and subcontractors are subject to the approval by the City.

### **Official Documents**

The City of Ann Arbor shall accept no alternates to the bid documents made by the Bidder unless those alternatives are set forth in the "Alternate" section of Bid form.

The City of Ann Arbor officially distributes bid documents from the Procurement Unit or through the Michigan Intergovernmental Trade Network (MITN). Copies of the bid documents obtained from any other source are not Official copies. Addenda and other bid information will only be posted to these official distribution sites. If you obtained City of Ann Arbor Bid documents from other sources, it is recommended that you register on [www.MITN.info](http://www.MITN.info) and obtain an official Bid.

### **Bid Security**

Each bid must be accompanied by a certified check, or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

### **Withdrawal of Bids**

After the time of opening, no Bid may be withdrawn for the period of 90 days specified in the Advertisement.

### **Contract Time**

Time is of the essence in the performance of the work under this Contract. The available time for work under this Contract is indicated on page C-2, Article III of the Contract. If these time requirements can not be met, the Bidder must stipulate on Bid Form Section 3 - Time Alternate its schedule for performance of the work. Consideration will be given to time in evaluating bids.

## **Liquidated Damages**

A liquidated damages clause, as given on page C-2, Article III of the Contract, provides that the Contractor shall pay the City as liquidated damages, and not as a penalty, a sum certain per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the City shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

## **Human Rights Information**

Section 5, beginning at page GC-3, outlines the requirements for fair employment practices under City of Ann Arbor Contracts. To establish compliance with this Ordinance, the Bidder should complete and return with its bid completed copies of the Human Rights Division Contract Compliance Forms or an acceptable equivalent. In the event Human Rights forms are not submitted with the bid, the bidder will have 24 hours to provide once requested by the City.

## **Wage Requirements**

Section 4, beginning at page GC-2, outlines the requirements for payment of prevailing wages or of a "living wage" to employees providing service to the City under this contract. The successful bidder must comply with all applicable requirements and provide documentary proof of compliance when requested.

## **Major Subcontractors**

The Bidder shall identify on Bid Form Section 4 each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor. The Bidder shall not change or replace a subcontractor without approval by the City.

## **Debarment**

Submission of a Bid in response to this ITB is certification that the Bidder is not currently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the City will be notified of any changes in this status.

## **Disclosures**

After bids are opened, all information in a submitter's bid is subjected to disclosure under the provisions of Michigan Public Act No. 442 of 1976, as amended (MCL 15.231 et seq.) known as the "Freedom of Information Act." The Freedom of Information Act also provides for the complete disclosure of contracts and attachments thereto except where specifically exempted.

## **Bid Protest**

All Bid protests must be in writing and filed with the Purchasing Agent within five (5) business days of the award action. The bidder must clearly state the reasons for the protest. If a bidder contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the bidder to the Purchasing Agent. The Purchasing Agent will provide the bidder with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee whose decision shall be final.

## **Reservation of Rights**

The City of Ann Arbor reserves the right to accept any bid or alternative bid proposed in whole or in part, to reject any or all bids or alternatives bids in whole or in part and to waive irregularity and/or informalities in any bid and to make the award in any manner deemed in the best interest of the City.

# CONTRACT COMPLIANCE FORMS

## City of Ann Arbor Procurement Office INSTRUCTIONS FOR CONTRACTORS

### For Completing CONTRACT COMPLIANCE FORM

#### City Policy

The “non discrimination in contracts” provision of the City Code, (Chapter 112, Section 9:161) requires contractors/bidders/grantees doing business with the City not to discriminate on the basis of actual or perceived race, color, religion, national origin, sex, age, condition of pregnancy, marital status, physical or mental limitations, source of income, family responsibilities, educational association, sexual orientation, gender identity or HIV status against any of their employees, any City employee working with them, or any applicant for employment. It also requires that the contractors/bidders/grantees include a similar provision in all subcontracts that they execute for City work or programs.

This Ordinance further requires that each prospective contractor/bidder submit employment data to the City showing current total employee breakdown by occupation, race and gender. This allows the Human Rights Office to determine whether or not the contractor/bidder has a workforce that is reflective of the availability of women and under-represented minorities within the contractor’s labor recruitment area (the area where they can reasonably be expected to recruit employees). *This data is provided to the City on the Human Rights Contract Compliance Forms (attached).*

#### To complete the form:

1) **If a company has more than one location, then that company must complete 2 versions of the form.**

- **Form #1** should contain the employment data for the **entire corporation.**
- **Form #2** should contain the employment data for those employees:
  - who will be working on-site;
  - in the office responsible for completing the contract; or,
  - in the case of non-profit grantees, those employees working on the project funded by the City grant(s).

2) If the company has only one location, fill out Form #1 only.

3) Complete all data in the upper section of the form including the name of the person who completes the form and the name of the company/organization’s president.

4) Complete the Employment Data in the remainder of the form. Please be sure to complete all columns including the Total Columns on the far right side of the form, and the Total row and Previous Year Total row at the bottom of the form.

5) Return the completed form(s) to your contact in the City Department for whom you will be conducting the work.

#### **For assistance in completing the form, contact:**

Procurement Office of the City of Ann Arbor  
(734) 794-6500

If a contractor is determined to be out of compliance, the Procurement Office will work with them to assist them in coming into compliance.

# CITY OF ANN ARBOR LIVING WAGE ORDINANCE

**RATE EFFECTIVE APRIL 30, 2014 - ENDING APRIL 29, 2015**

**\$12.70** per hour

If the employer provides health  
care benefits\*

**\$14.18** per hour

If the employer does **NOT**  
provide health care benefits\*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

## ***ENFORCEMENT***

***The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.***

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

\* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

**The Law Requires Employers to Display This Poster Where Employees Can Readily See It.**

**For Additional Information or to File a Complaint Contact**

**Mark Berryman at 734/794-6500 or [mberryman@a2gov.org](mailto:mberryman@a2gov.org)**

## INVITATION TO BID

City of Ann Arbor  
Guy C. Larcom Municipal Building  
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including Advertisement, Human Rights Division Contract Compliance Forms, Notice of Pre-Bid Conference, Instructions to Bidders, Bid, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered \_\_\_\_\_, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:319 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting

requirements stated in the City Code provisions cited. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS 28 DAY OF NOVEMBER, 2014.

RDC CONSTRUCTION SERVICES  
Bidder's Name

[Signature]  
Authorized Signature of Bidder

26400 W EIGHT MILE SOUTHFIELD MI 48003  
Official Address

ROBERT DELICATA  
(Print Name of Signer Above)

313-300-0665  
Telephone Number

robert@rdc.construction.net  
Email Address for Award Notice

LEGAL STATUS OF BIDDER

(The Bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

~~\* A corporation organized and doing business under the laws of the state of \_\_\_\_\_, for whom \_\_\_\_\_, bearing the office title of \_\_\_\_\_, whose signature is affixed to this Bid, is authorized to execute contracts.~~

~~NOTE: If not incorporated in Michigan, please attach the corporation's Certificate of Authority~~

• A limited liability company doing business under the laws of the state of MICHIGAN, whom ROBERT DELICATA bearing the title of OWNER whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.

~~\* A partnership, organized under the laws of the state of \_\_\_\_\_ and filed in the county of \_\_\_\_\_, whose members are (list all members and the street and mailing address of each): \_\_\_\_\_~~

~~\* An individual, whose signature with address, is affixed to this Bid: \_\_\_\_\_ (initial here)~~

**BID FORM**  
Section 1 – Schedule of Prices

**Base Bid Schedule** - The Bidder will complete the Work and accept as full payment, for the Work items listed, the following Unit Prices and/or Item Bid Prices, as applicable:

Base Bid Item Number	Bid Quantity	Work Description	Unit Price	Item Bid Price
1	1	Site Preparation, Submittals, and Site Service	LUMP SUM	\$ 800 <sup>-</sup>
2	1	Mobilization/Demobilization	LUMP SUM	\$ 700 <sup>-</sup>
7	1	Disconnection of Utilities and Removal of Utility Pole, Transformer and All Related Appurtenances	LUMP SUM	\$ 1000 <sup>-</sup>
6	1	Clearing and Grubbing	LUMP SUM	\$ 600 <sup>-</sup>
3	1	Drinking Water Well Abandonment	LUMP SUM	\$ 400 <sup>-</sup>
4	1	Crock Well Abandonment	LUMP SUM	\$ 400 <sup>-</sup>
5	1	Septic System Abandonment	LUMP SUM	\$ 500 <sup>-</sup>
8	1	Abatement, Transportation, and Disposal of Approximately 200 Square Feet (Non-Friable) Floor Tile Located within the Vacant Residential Building	LUMP SUM	\$ 600 <sup>-</sup>
9	1	Removal, Transportation, and Disposal of Universal and Other Regulated Wastes and All Related Appurtenances Located within the Vacant Residential Building	LUMP SUM	\$ 300 <sup>-</sup>
10	1	Demolition of the Vacant Residential Building and Out Building (Approximately 4,000 Square Feet)	LUMP SUM	\$ 22,000 <sup>-</sup>
11	1	Removal, Transportation, and Disposal of Demolition Debris Associated with the Vacant Residential Building and Out Building	LUMP SUM	\$ 1000 <sup>-</sup>
12	1	Removal, Transportation, and Disposal/Recycling of Approximately 10 Tons of Surficial Debris	LUMP SUM	\$ 600 <sup>-</sup>
13	1	Removal, Transportation, and Disposal of Approximately 100 Cubic yards of Hazardous Lead Impacted Soil and Debris	LUMP SUM	\$ 15,500 <sup>-</sup>
14	1	Site Restoration	LUMP SUM	\$ 1200 <sup>-</sup>
15	1	Provisional Allowance for Unforeseen Site Conditions	LUMP SUM	\$ 20,000
		TOTAL BASE BID		\$ 65,600

BID FORM

Section 2 - Material and Equipment Alternates

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

<u>Item Number</u>	<u>Description</u>	<u>Add/Deduct Amount</u>
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If the Bidder does not suggest any material or equipment alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the Contract.

Signature of Authorized Representative of Bidder  \_\_\_\_\_

BID FORM

Section 3 - Time Alternate

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-2, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the Contract.

Signature of Authorized Representative of Bidder



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BID FORM

Section 4 - Major Subcontractors

For purposes of this Contract, a Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of Contract with the Contractor), but shall not include any individual who furnishes merely the individual's own personal labor or services.

For the work outlined in these documents the Bidder expects to engage the following major subcontractors to perform the work identified:

<u>Subcontractor (Name and Address)</u>	<u>Work</u>	<u>Amount</u>
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If the Bidder does not expect to engage any major subcontractor, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any major subcontractor to perform work under the Contract.

Signature of Authorized Representative of Bidder



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# City of Ann Arbor

301 E. Huron St.  
Ann Arbor, MI 48104  
<http://a2gov.legistar.com/Calendar.aspx>

## Master

**File Number: 14-1792**

<b>File ID:</b> 14-1792	<b>Type:</b> Resolution	<b>Status:</b> Passed
<b>Version:</b> 1	<b>Reference:</b>	<b>Controlling Body:</b> City Council
<b>* Requester:</b> Community Services		<b>File Created Date :</b> 02/02/2015
<b>* File Name:</b> 2/2/15 Brokaw Property Demolition		<b>Final Action:</b> 02/02/2015

**Title:** Resolution to Approve a Contract with RDC Construction Services, Inc. for Property Demolition, Clean Up and Site Restoration at 3013 Huron River Drive (\$65,600.00)

**Notes:**

**Agenda Date:** 02/02/2015

**Agenda Number:** CA-1

**Sponsors:**

**Enactment Date:** 02/02/2015

**Attachments:** ITB Brokaw Property Demolition and Site Restoration Specifications.pdf

**Enactment Number:** R-15-017

**Drafter/Contact:** Amy Kuras

**Hearing Date:**

**\* Admin/Mgr:** Sumedh Bahl, Community Services Area Administrator

**Effective Date:**

### History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
1	City Council	02/02/2015	Approved				Pass

### Text of Legislative File 14-1792

Resolution to Approve a Contract with RDC Construction Services, Inc. for Property Demolition, Clean Up and Site Restoration at 3013 Huron River Drive (\$65,600.00)

Attached for your review and action is a resolution to approve a \$65,600.00 contract with RDC Construction Services, Inc. to demolish an abandoned house, remove debris and contaminated soil, and restore the site at recently acquired park property at 3013 Huron River Drive.

The property is approximately 24.45 acres, a portion of which runs along the Huron River, and is adjacent to other City-owned property. On the west side of Huron River Drive, the property is partly wooded with steep slopes and grasslands. The property was donated to the city and included an endowment in the amount of \$476,115.99, part

of which will be used to demolish the house, remove debris and contaminated soil, and restore the area so that the site can open for public use. The property drive is currently chained shut and signed as not open to the public.

Four bids were received by the City for this project:

RDC Construction Services, Inc.	\$65,600.00*
Blue Star, Inc.	\$85,500.00
Homrich, Inc.	\$93,400.00
E.T. Mackenzie Company	\$95,990.00

\*Lowest responsible bidder.

Staff is recommending awarding a contract to RDC Construction Services, Inc. in the amount of \$65,600.00 to perform demolition and restoration services. A 10% construction contingency (\$6,560.00) is requested to cover potential contract change orders to be approved by the City Administrator. It is requested that a \$72,160.00 contract and contingency amount be approved for the life of the project without regard to fiscal year.

The Park Advisory Commission recommended approval of this contract at their January 20, 2015 meeting.

RDC Construction Services, Inc. meets the living wage and prevailing wage requirements and received Human Rights approval on December, 17, 2014.

Prepared by: Amy Kuras, Landscape Architect IV  
Reviewed by: Colin Smith, Parks & Recreation Services Manager and Sumedh Bahl, Community Services Area Administrator  
Approved by: Steven D. Powers, City Administrator

Whereas, The City recently acquired property at 3013 Huron River Drive through a donation to be used as parkland;

Whereas, The property contains structures and debris that need to be removed prior to allowing public access;

Whereas, The property donation included a fund for maintenance and upkeep of the property which will be used to complete this work;

Whereas, RDC Construction Services submitted the lowest responsible bid to provide the demolition and restoration services; and

Whereas, RDC Construction Services received Human Rights approval on December 17, 2014;

RESOLVED, That City Council approve a contract with RDC Construction Services, Inc. to demolish the structures, clean and restore the site, and approve a construction

contingency of \$6,560.00 (10%) to cover potential contract change orders for a total contract amount of \$72,160.00 for the life of the project without regard to fiscal year;

RESOLVED, That the City Administrator be authorized to take all necessary administrative actions to implement this resolution including the authority to approve change orders within the approved contingency; and

RESOLVED, That the Mayor and City Clerk be authorized and directed to execute the contract after approval as to substance by the City Administrator and approval as to form by the City Attorney.

## CONTRACT

THIS AGREEMENT is made on the 6<sup>th</sup> of March, 2015, between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 301 East Huron Street, Ann Arbor, Michigan 48104 ("City") and RDC Construction Services (Contractor), an LLC located at 26400 West Eight Mile Road, Southfield, MI 48003.

Based upon the mutual promises below, the Contractor and the City agree as follows:

### ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the project titled "Property Demolition, Clean up and Site Restoration at 3013 Huron River Drive" in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, which are incorporated as part of this Contract:

Human Rights Division Contract	General Conditions
Living Wage Declaration of Compliance Forms (if applicable)	Standard Specifications
Bid Forms	Detailed Specifications
Contract and Exhibits	Plans
Bonds	Addenda

### ARTICLE II - Definitions

Administering Service Area/Unit means Community Services Area.

Supervising Professional or Owner means persons acting under the authorization of the Administrator/Manager of the Administering Service Area/Unit.

Engineer or Owner's Representative means Consulting Professional acting under the authorization of the Supervising Professional/Owner.

Project means Property Demolition, Clean up and Site Restoration at 3013 West Huron River Drive, Bid No. ITB- 4357

### ARTICLE III - Time of Completion

- (A) The work to be completed under this Contract shall begin immediately on the date specified in the Notice to Proceed issued by the City.
- (B) The work for this Contract shall be completed within two consecutive weeks whereby all demolition and site restoration is complete to make the site safe for public access. Final acceptance of the vegetative restoration to be completed by June 30 when vegetation has taken hold and in accordance with soil erosion control plan.
- (C) Failure to complete all the work within the time specified above, including any extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the City, as liquidated damages and not as a penalty, an amount equal to \$100.00 for each calendar day of delay in the completion of the demolition and site restoration work (excluding complete vegetative restoration). If any liquidated damages are unpaid by the Contractor, the City shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

### ARTICLE IV - The Contract Sum

- (A) The City shall pay to the Contractor for the performance of the Contract, the unit prices as given in the Bid Forms for the estimated bid total of:

**Sixty Five Thousand Dollars (\$65,000.00)**

- (B) The amount paid shall be equitably adjusted to cover changes in the work ordered by the Supervising Professional but not required by the Contract Documents. Increases or decreases shall be determined only by written agreement between the City and Contractor.

### ARTICLE V - Assignment

This Contract may not be assigned or subcontracted without the written consent of the City.

### ARTICLE VI - Choice of Law

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this agreement, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract. The parties stipulate that the venue referenced in this Contract is for convenience and waive any claim of non-convenience.

Whenever possible, each provision of the Contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision will not invalidate the remainder of the Contract.

#### ARTICLE VII - Relationship of the Parties

The parties of the Contract agree that it is not a Contract of employment but is a Contract to accomplish a specific result. Contractor is an independent Contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any Contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this agreement.

#### ARTICLE VIII - Notice

All notices given under this Contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the Contract Documents or other address the Contractor may specify in writing.

#### ARTICLE IX - Indemnification

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney's fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this Contract, by the Contractor or anyone acting on the Contractor's behalf under this Contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City's sole negligence.

#### ARTICLE X - Entire Agreement

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations or agreements whether written or oral. Neither party has relied on any prior representations in entering into this Contract. This Contract may be altered, amended or modified only by written amendment signed by the City and the Contractor.

**FOR CONTRACTOR**

RDC Construction Services

By \_\_\_\_\_  
Robert Delicata

Its: \_\_\_\_\_  
Owner

**FOR THE CITY OF ANN ARBOR**

By \_\_\_\_\_  
Christopher Taylor, Mayor

By \_\_\_\_\_  
Jacqueline Beaudry, City Clerk

**Approved as to substance**

By \_\_\_\_\_  
Steven D. Powers, City Administrator

By \_\_\_\_\_  
Sumedh Bahl, Community Services  
Area Administrator

**Approved as to form and content**

\_\_\_\_\_  
Stephen K. Postema, City Attorney

PERFORMANCE BOND

(1) \_\_\_\_\_ of \_\_\_\_\_ (referred to as "Principal"), and \_\_\_\_\_, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for

\$ \_\_\_\_\_, the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.

(2) The Principal has entered a written Contract with the City dated \_\_\_\_\_, 201\_, for: \_\_\_\_\_ and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.

(3) Whenever the Principal is declared by the City to be in default under the Contract, the Surety may promptly remedy the default or shall promptly:

(a) complete the Contract in accordance with its terms and conditions; or

(b) obtain a bid or bids for submission to the City for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a Contract between such bidder and the City, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the Contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.

(4) Surety shall have no obligation to the City if the Principal fully and promptly performs under the Contract.

(5) Surety agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work, or to the specifications.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, 201\_.

\_\_\_\_\_  
(Name of Surety Company)

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

\_\_\_\_\_  
(Name of Principal)

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

Approved as to form:

\_\_\_\_\_  
Stephen K. Postema, City Attorney

Name and address of agent:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LABOR AND MATERIAL BOND

- (1) \_\_\_\_\_  
of \_\_\_\_\_ (referred to as "Principal"), and \_\_\_\_\_, a corporation duly authorized to do business in the State of Michigan, (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for the use and benefit of claimants as defined in Act 213 of Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq., in the amount of \$ \_\_\_\_\_, for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City, dated \_\_\_\_\_, 201\_, for \_\_\_\_\_  
\_\_\_\_\_; and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963 as amended;
- (3) If the Principal fails to promptly and fully repay claimants for labor and material reasonably required under the Contract, the Surety shall pay those claimants.
- (4) Surety's obligations shall not exceed the amount stated in paragraph 1, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, 201\_.

\_\_\_\_\_  
(Name of Surety Company)  
By \_\_\_\_\_  
(Signature)  
Its \_\_\_\_\_  
(Title of Office)

\_\_\_\_\_  
(Name of Principal)  
By \_\_\_\_\_  
(Signature)  
Its \_\_\_\_\_  
(Title of Office)

Approved as to form:

Name and address of agent:

\_\_\_\_\_  
Stephen K. Postema, City Attorney

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **GENERAL CONDITIONS**

### **Section 1 - Execution, Correlation and Intent of Documents**

The contract documents shall be signed in 2 copies by the City and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

(1) Addenda in reverse chronological order; (2) Detailed Specifications; (3) Standard Specifications; (4) Plans; (5) General Conditions; (6) Contract; (7) Bid Forms; (8) Bond Forms; (9) Bid.

### **Section 2 - Order of Completion**

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

### **Section 3 - Familiarity with Work**

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the City upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

## Section 4 - Wage Requirements

Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section."

Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

Further, to the extent that any employees of the Contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with Section 1:319 of Chapter 14 of Title I of the Code of the City of Ann Arbor, the Contractor agrees to conform to Chapter 23 of Title I of the Code of the City of Ann Arbor, as amended, which in part states:

### **1:814. Applicability.**

- (1) This Chapter shall apply to any person that is a contractor/bidder or grantee as defined in Section 1:813 that employs or contracts with five (5) or more individuals; provided, however, that this Chapter shall not apply to a non-profit contractor/bidder or non-profit grantee unless it employs or contracts with ten (10) or more individuals.
- (2) This Chapter shall apply to any grant, contract, or subcontract or other form of financial assistance awarded to or entered into with a contractor/bidder or grantee after the effective date of this Chapter and to the extension or renewal after the effective date of this Chapter of any grant, contract, or subcontract or other form of financial assistance with a contractor/bidder or grantee.

### **1:815. Living Wages Required.**

- (1) Every contractor/bidder or grantee, as defined in Section 1:813, shall pay its covered employees a living wage as established in this Section.
  - (a) For a covered employer that provides employee health care to its employees, the living wage shall be \$12.70 an hour, or the adjusted amount hereafter established under Section 1:815(3).
  - (b) For a covered employer that does not provide health care to its employees, the living wage shall be \$14.18 an hour, or the adjusted amount hereafter established under Section 1:815(3).

- (2) In order to qualify to pay the living wage rate for covered employers providing employee health care under subsection 1:815(1)(a), a covered employer shall furnish proof of said health care coverage and payment therefor to the City Administrator or his/her designee.
- (3) The amount of the living wage established in this Section shall be adjusted upward no later than April 30, 2002, and every year thereafter by a percentage equal to the percentage increase, if any, in the federal poverty guidelines as published by the United States Department of Health and Human Services for the years 2001 and 2002. Subsequent annual adjustments shall be based upon the percentage increase, if any, in the United States Department of Health and Human Services poverty guidelines when comparing the prior calendar year's poverty guidelines to the present calendar year's guidelines. The applicable percentage amount will be converted to an amount in cents by multiplying the existing wage under Section 1.815(1)(b) by said percentage, rounding upward to the next cent, and adding this amount of cents to the existing living wage levels established under Sections 1:815(1)(a) and 1:815(1)(b). Prior to April 1 of each calendar year, the City will notify any covered employer of this adjustment by posting a written notice in a prominent place in City Hall, and, in the case of a covered employer that has provided an address of record to the City, by a written letter to each such covered employer.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision covering subcontractor's employees who perform work on this contract.

#### Section 5 - Non-Discrimination

The Contractor agrees to comply, and to require its subcontractor(s) to comply, with the nondiscrimination provisions of Section 209 of the Elliot-Larsen Civil Rights Act (MCL 37.2209). The Contractor further agrees to comply with the nondiscrimination provisions of Chapter 112 of the Ann Arbor City Code and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity. The Contractor further agrees to comply with the provisions of Section 9:161 of Chapter 112 of the Ann Arbor City Code and in particular the following excerpts:

#### 9:161 NONDISCRIMINATION BY CITY CONTRACTORS

- (1) All Contractors proposing to do business with the City of Ann Arbor shall satisfy the nondiscrimination administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All contractors shall receive approval from the Director prior to entering into a contract with the City, unless specifically exempted by administrative policy. All City contractors shall take affirmative action to insure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon race, national origin or sex.
- (2) Each prospective contractor shall submit to the City data showing current total employment by occupational category, sex and minority group. If, after verifying this data, the Director concludes that it indicates total minority and female employment commensurate with their availability within the contractor's labor recruitment area, i.e., the area from which the Contractor can reasonably be expected to recruit, said Contractor shall be accepted by the

Director as having fulfilled affirmative action requirements for a period of one year at which time the Director shall conduct another review. Other Contractors shall develop an affirmative action program in conjunction with the Director. Said program shall include specific goals and timetables for the hiring and promotion of minorities and females. Said goals shall reflect the availability of minorities and females within the contractor's labor recruitment area. In the case of Construction Contractors, the Director shall use for employment verification the labor recruitment area of the Ann Arbor-Ypsilanti standard metropolitan statistical area. Construction Contractors determined to be in compliance shall be accepted by the Director as having fulfilled affirmative action requirements for a period of six (6) months at which time the Director shall conduct another review.

- (3) In hiring for construction projects, Contractors shall make good faith efforts to employ local persons, so as to enhance the local economy.
- (4) All Contracts shall include provisions through which the Contractor agrees, in addition to any other applicable Federal or State labor laws:
  - (a) To set goals, in conference with the Human Resources Director, for each job category or division of the work force used in the completion of the City work;
  - (b) To provide periodic reports concerning the progress the contractor has made in meeting the affirmative action goals it has agreed to;
  - (c) To permit the Director access to all books, records and accounts pertaining to its employment practices for the purpose of determining compliance with the affirmative action requirements.
- (5) The Director shall monitor the compliance of each contractor with the nondiscrimination provisions of each Contract. The Director shall develop procedures and regulations consistent with the administrative policy adopted by the City Administrator for notice and enforcement of non-compliance. Such procedures and regulations shall include a provision for the posting of contractors not in compliance.
- (6) All City Contracts shall provide further that breach of the obligation not to discriminate shall be a material breach of the contract for which the City shall be entitled, at its option, to do any or all of the following:
  - (a) To cancel, terminate, or suspend the contract in whole or part and/or refuse to make any required periodic payments under the contract;
  - (b) Declare the contractor ineligible for the award of any future contracts with the City for a specified length of time;
  - (c) To recover liquidated damages of a specified sum, said sum to be that percentage of the labor expenditure for the time period involved which would have accrued to minority group members had the affirmative action not been breached;

(d) Impose for each day of non-compliance, liquidated damages of a specified sum, based upon the following schedule:

<u>Contract Amount</u>	<u>Assessed Damages Per Day of Non-Compliance</u>
\$ 10,000 - 24,999	\$ 25.00
25,000 - 99,999	50.00
100,000 - 199,999	100.00
200,000 - 499,999	150.00
500,000 - 1,499,999	200.00
1,500,000 - 2,999,999	250.00
3,000,000 - 4,999,999	300.00
5,000,000 - and above	500.00

(e) In addition the contractor shall be liable for any costs or expenses incurred by the City of Ann Arbor in obtaining from other sources the work and services to be rendered or performed or the goods or properties to be furnished or delivered to the City under this contract.

#### Section 6 - Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned.

Adequate sanitary facilities shall be provided by the Contractor.

#### Section 7 - Qualifications for Employment

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.

#### Section 8 - Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the City harmless from loss on account of infringement except that the City shall be responsible for all infringement loss when a particular process or the product of a particular manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

## Section 9 - Permits and Regulations

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The City shall secure and pay for easements shown on the plans unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the work.

## Section 10 - Protection of the Public and of Work and Property

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to its work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or employees of the City. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

## Section 11 - Inspection of Work

The City shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an

authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

### Section 12 - Superintendence

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

### Section 13 - Changes in the Work

The City may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

### Section 14 - Extension of Time

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

- (1) When work under an extra work order is added to the work under this Contract;
- (2) When the work is suspended as provided in Section 20;

- (3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;
- (4) Delays in the progress of the work caused by any act or neglect of the City or of its employees or by other Contractors employed by the City;
- (5) Delay due to an act of Government;
- (6) Delay by the Supervising Professional in the furnishing of plans and necessary information;
- (7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

#### Section 15 - Claims for Extra Cost

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section 13. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

- (1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;
- (2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges

for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;

- (3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;
- (4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;
- (5) Payments of all charges for work under this Section in any one month shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16.

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

#### Section 16 - Progress Payments

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. The submission shall be to the City's Finance Department - Accounting Division. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the City will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The City will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.

An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery,

60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than 180 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2.

#### Section 17 - Deductions for Uncorrected Work

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

#### Section 18 - Correction of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within 10 days after written notice, the City may remove them and, if the removed material has value, may store the material at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the City may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the City the expenses for disposal within 10 days of invoice for the disposal costs.

The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

## Section 19 - Acceptance and Final Payment

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the City under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the City:

- (1) The consent of the surety to payment of the final estimate;
- (2) The Contractor's Affidavit in the form required by Section 44.

In case the Affidavit or consent is not furnished, the City may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City except those arising from:

- (1) unsettled liens;
- (2) faulty work appearing within 12 months after final payment;
- (3) hidden defects in meeting the requirements of the plans and specifications;
- (4) manufacturer's guarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

## Section 20 - Suspension of Work

The City may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the written notice from the City to the Contractor to do so. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.

If the work, or any part, shall be stopped by the notice in writing, and if the City does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

## Section 21 - Delays and the City's Right to Terminate Contract

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the City may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the City may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any excess cost to the City. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The City may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the City for any excess cost incurred. The expense incurred by the City, and the damage incurred through the Contractor's default, shall be certified by the Supervising Professional.

## Section 22 - Contractor's Right to Terminate Contract

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the City, terminate this Contract and recover from the City payment for all acceptable work executed plus reasonable profit.

## Section 23 - City's Right To Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the City, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the City may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

## Section 24 - Removal of Equipment and Supplies

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the City, shall promptly remove any part or all of its equipment and supplies from the property of the City, failing which the City shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the City and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the City upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

## Section 25 - Responsibility for Work and Warranties

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the City for damages to materials and equipment from any cause except negligence or willful act of the City. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days.

The Contractor shall assign all manufacturer or material supplier warranties to the City prior to final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

## Section 26 - Partial Completion and Acceptance

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the City, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the City may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the

Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

#### Section 27 - Payments Withheld Prior to Final Acceptance of Work

The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the City from loss on account of:

- (1) Defective work not remedied;
- (2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;
- (3) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- (4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the City which will protect the City in the amount withheld, payment shall be made for amounts withheld under this section.

#### Section 28 - Contractor's Insurance

- A. The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself and the City from all claims for bodily injuries, death or property damage which may arise under this Contract; whether the acts were made by the Contractor or by any subcontractor or anyone employed by them directly or indirectly. The following insurance policies are required:
  1. Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:  
  
Bodily Injury by Accident - \$500,000 each accident  
Bodily Injury by Disease - \$500,000 each employee  
Bodily Injury by Disease - \$500,000 each policy limit
  2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements including, but not limited to: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further, the following minimum limits of liability are required:

\$1,000,000 Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined.

\$2,000,000 Per Job General Aggregate

\$1,000,000 Personal and Advertising Injury

\$2,000,000 Products and Completed Operations Aggregate

3. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.
  4. Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.
- B. Insurance required under Section A.2 and A.3 of this Contract shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City.
- C. In the case of all Contracts involving on-site work, the Contractor shall provide to the City before the commencement of any work under this Contract documentation demonstrating it has obtained the above mentioned policies. Documentation must provide and demonstrate an unconditional 30 day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified. An original certificate of insurance may be provided as an initial indication of the required insurance, provided that no later than 21 calendar days after commencement of any work the Contractor supplies a copy of the endorsements required on the policies. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the City. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies to the Administering Service Area/Unit at least ten days prior to the expiration date.
- D. Any Insurance provider of Contractor shall be admitted and authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-admitted insurance companies are not acceptable unless approved in writing by the City.

## Section 29 - Surety Bonds

Bonds will be required from the successful bidder as follows:

- (1) A Performance Bond to the City of Ann Arbor for the amount of the bid(s) accepted;
- (2) A Labor and Material Bond to the City of Ann Arbor for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the City in a manner and by a Surety Company satisfactory to the City Attorney.

## Section 30 - Damage Claims

The Contractor shall be held responsible for all damages to property of the City or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

## Section 31 - Refusal to Obey Instructions

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

## Section 32 - Assignment

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the City.

## Section 33 - Rights of Various Interests

Whenever work being done by the City's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

## Section 34 - Subcontracts

The Contractor shall not award any work to any subcontractor without prior written approval of the City. The approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the contract documents.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the City.

#### Section 35 - Supervising Professional's Status

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.

#### Section 36 - Supervising Professional's Decisions

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the City or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

#### Section 37 - Storing Materials and Supplies

Materials and supplies may be stored at the site of the work at locations agreeable to the City unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

#### Section 38 - Lands for Work

The Contractor shall provide, at its own expense and without liability to the City, any additional land and access that may be required for temporary construction facilities or for storage of materials.

#### Section 39 - Cleaning Up

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the City's property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.

#### Section 40 - Salvage

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain City property and shall be transported or stored at a location as the Supervising Professional may direct.

#### Section 41 - Night, Saturday or Sunday Work

No night or Sunday work (without prior written City approval) will be permitted except in the case of an emergency and then only to the extent absolutely necessary. The City may allow night work which, in the opinion of the Supervising Professional, can be satisfactorily performed at night. Night work is any work between 8:00 p.m. and 7:00 a.m. No Saturday work will be permitted unless the Contractor gives the Supervising Professional at least 48 hours but not more than 5 days notice of the Contractor's intention to work the upcoming Saturday.

#### Section 42 - Sales Taxes

Under State law the City is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in City projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.





## **STANDARD SPECIFICATIONS**

All work under this contract shall be performed in accordance with the Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Advertisement. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

A copy of the Public Services Department Standard Specifications may be purchased from the Engineering Division, (Fourth Floor, City Hall, Ann Arbor, Michigan), for \$35.00 per copy. In addition, a copy of these Standard Specifications is available for public viewing at the Engineering Division office, for review Monday through Friday between the hours of 8:30 a.m. and 4:00 p.m.

Copies of the Standard Specifications can also be downloaded from the web link:

[http://www.a2gov.org/government/publicservices/project\\_management/privatedev/pages/standardspecificationsbook.aspx](http://www.a2gov.org/government/publicservices/project_management/privatedev/pages/standardspecificationsbook.aspx).

**APPENDIX I**  
**SHEETS**

**APPENDIX II**  
**REPORTS**

**APPENDIX III**  
**FORMS**

**FORM 02080A**

**CERTIFICATE OF WORKER'S ACKNOWLEDGMENT**

I \_\_\_\_\_, **HEREBY ACKNOWLEDGE** that I have voluntarily chosen to participate in work that involves the removal and/or transportation of asbestos-containing materials from the Westinghouse, Boiler House, Plant A, and East Office Buildings located at 1510 East Front Street in Monroe, Monroe County, Michigan.

I am aware that this asbestos work is a hazardous activity that will involve exposure to asbestos, and that exposure to asbestos can cause cancer, lung disease and other illness. I am aware that my employer, \_\_\_\_\_, has taken full responsibility to supply me with proper respiratory protection equipment and other personal protective equipment, training in proper asbestos abatement procedures, and annual medical examinations at no cost to myself. I am also aware that proper safety equipment and training may not prevent me from being harmed by exposure to asbestos.

Date: \_\_\_\_\_

Signature \_\_\_\_\_

Witness' name \_\_\_\_\_

Witness' signature \_\_\_\_\_ Date: \_\_\_\_\_

TRANSLATOR'S ACKNOWLEDGMENT: I certify that I translated this document to the signing employee accurately.

Translator's name: \_\_\_\_\_

Translator's signature: \_\_\_\_\_ Date: \_\_\_\_\_

**FORM 02080B**

**CERTIFICATE OF VISUAL INSPECTION**

Project Name: \_\_\_\_\_

Building Name/Number: \_\_\_\_\_

Work Area Description: \_\_\_\_\_

In accordance with Section 02080, Removal of Asbestos Containing Materials, the CONTRACTOR hereby certifies that he has visually inspected the work area (all surfaces, including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, etc.) and has found no dust, debris or residue.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Print Company Name)

**OWNER'S REPRESENTATIVE CERTIFICATION**

The OWNER'S REPRESENTATIVE hereby certifies that he/she has accompanied the CONTRACTOR on CONTRACTOR's visual inspection and verifies that this inspection has been thorough, and to the best of OWNER'S REPRESENTATIVE's knowledge and belief, the CONTRACTOR's Certification above is a true and honest one.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Print Company Name)

FORM 02080C

POST-ABATEMENT FINAL INSPECTION/AIR SAMPLING FORM

CLIENT: \_\_\_\_\_

PROJECT: \_\_\_\_\_

LOCATION: \_\_\_\_\_

TYPES OF ACM: \_\_\_\_\_

INSPECTION CHECKLIST						
Yes / No	The asbestos abatement Contractor was present during the visual inspection.					
Yes / No	A written detailed scope of work or written specification was provided prior to the inspection to verify all required asbestos-containing materials were removed.					
Yes / No	All materials and equipment were properly removed from the work area according to the scope of work or written specification.					
Yes / No	Plastic sheeting present in the work area was wet wiped to remove visible debris.					
Yes / No	All surfaces, materials, and equipment not covered with plastic sheeting in the work area were wet wiped to remove visible debris.					
Yes / No	Decontamination units were wet wiped to remove visible debris and waste was properly filtered or bagged.					
Signature of Inspector: _____			Date: _____			
Printed Name: _____			Time: _____			
Certification State and No: _____						
ENCAPSULATION AND CLEARANCE AIR MONITORING CHECKLIST						
Yes / No	Lock down encapsulant was applied to all specified surfaces.					
Yes / No	Clearance air sampling was specified or required for this work.					
PCM / TEM	Type of clearance air samples collected. <ul style="list-style-type: none"><li>• If PCM, minimum of 3 samples required per work area; area clear if all samples results less than or equal to 0.01 fibers per cubic centimeter (f/cc).</li><li>• If TEM, 5 inside work area samples required; area clear if average is less than or equal to 70 structures per square millimeter (s/mm<sup>2</sup>).</li></ul> Other criteria? Explain _____					
Sample No.:	_____	_____	_____	_____	_____	_____
PCM Result:	1)_____	2)_____	3)_____	4)_____	5)_____	6)_____
TEM Result:	1)_____	2)_____	3)_____	4)_____	5)_____	6)_____
Comments:	_____					
Signature of Inspector: _____			Date: _____			
Printed Name: _____			Time: _____			
Certification State and No: _____						

**FORM 02080**

**CERTIFICATE OF COMPLETION**

Project Name: \_\_\_\_\_

Building Name/Number: \_\_\_\_\_

I, the undersigned, certify that the asbestos removal portion of the work which occurred on \_\_\_\_\_ (Date(s)) has been performed according to Federal, state and local regulations, "state-of-the-art" technologies, and in accordance with specifications and drawings for this project.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Print Company Name)

**OWNER'S REPRESENTATIVE CERTIFICATION**

The OWNER'S REPRESENTATIVE hereby certifies that he/she has inspected the CONTRACTOR's work and verifies that the work has been performed in accordance with the above-referenced documents, and to the best of OWNER'S REPRESENTATIVE's knowledge and belief, the CONTRACTOR's Certification above is a true and honest one.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Print Company Name)

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II	WELL AND SEPTIC SYSTEM ABANDONMENT	03-1 TO 03-2
III	RESILIENT FLOORING REMOVAL – AGGRESSIVE ASBESTOSABATEMENT	03-2 TO 03-6
IV	DISPOSAL OF REGULATED ASBESTOS-CONTAINING MATERIAL	03-7 TO 03-8
V	HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT	03-8 TO 03-10
VI	BUILDING DEMOLITION	03-10 TO 03-14
VII	REMOVAL AND DISPOSAL OF HAZARDOUS LEAD-IMPACTED SOILS AND DEBRIS	03-14 TO 03-17
VIII	BACKFILLING	03-17 TO 03-18
IX	SITE RESTORATION	03-18 TO 03-19

## APPENDIX I – SHEETS

- Sheet 1 – Title Sheet
- Sheet 2 – Existing Conditions
- Sheet 3 – Demolition Plan
- Sheet 4 – Details

## APPENDIX II – REPORTS

## APPENDIX III – FORMS

**DIVISION 01**  
**GENERAL REQUIREMENTS**

## I. SUMMARY OF WORK

### A. GENERAL:

1. The following scope of Work is not intended to represent the full amount of the Work required to complete this project. It is only intended to serve as a general guideline. The successful bidder will assume responsibility to assure that all facets of the Work are included in their proposal.
2. In general, this Project shall include all material, labor and equipment necessary to complete asbestos-containing material (ACM) abatement, demolition activities, wells and septic tanks abandonment, limited lead-impacted soil and surficial debris removal and site restoration, as directed by the City or its authorized agent.
3. The site is addressed 3013 West Huron River Drive, located in Ann Arbor, Washtenaw County, Michigan. The site as referenced to nearby roads is depicted on *Sheet 1, Title Sheet* located in *Appendix I, Sheets*.

### B. SEQUENCE OF WORK

1. The Contractor shall prepare, submit, and obtain the City's and its authorized agent's acceptance of the Health and Safety Plan (HASP), Work Plan, and ACM Abatement Plan prior to beginning any on-site Work. The Contractor shall also obtain all required State and local permits and provide copies to the City or its authorized agent prior to any on-site Work.
2. The following is a preferred sequence of on-site Work activities. The Contractor may perform this Work in a different sequence if so desired, at no additional cost to the City or its authorized agent. The Work Plan shall include the Contractor's Sequence of Work.
  - a. Mobilize to the site, including the transport of all equipment, tools, and materials necessary to perform and complete the Work.
  - b. Install temporary barricades and securing site safety.
  - c. Clear and grub work areas.
  - d. As required, install temporary erosion control measures (geotextile silt fence) prior to the start of any Work and maintain at all times until Work is completed.
  - e. Install temporary facilities and utility services.
  - f. Disconnect utilities and remove associated utility pole, transformer and all related appurtenances.
  - g. Abandonment of a water well and crock well (assumed depth 30 feet) by a licensed water well drilling contractor registered in the State of Michigan.
  - h. Abandonment of two (2) septic systems.
  - i. Abate, transport, and dispose approximately 200 square feet of non-friable floor tiles located within the vacant residential building.
  - j. Remove, transport, and dispose universal and other regulated wastes from the vacant residential building and outbuilding.
  - k. Demolition of the vacant residential building and outbuilding (approximately 4,000 square feet).
  - l. Remove, transport, and dispose demolition debris.
  - m. Remove, transport, and dispose approximately 10 cubic yards of hazardous lead-impacted soil and debris.
  - n. Remove, transport and dispose and/or recycle approximately five (5) tons of surficial debris.
  - o. Site restoration.
  - p. Project Close-out activities.

### C. NOTICES OF ON-SITE WORK

1. The Contractor shall notify the City and its authorized agent, in writing, of the date of starting Work at least ten (10) business days prior to that date.

### D. COORDINATION OF NOISE, DUST, AND FUMES

1. Contain noise, dust and fumes within Work area. Notify the City or its authorized agent at least 48 hours prior to any necessary excessive noise, dust or fumes. Comply with the City or its authorized agent instructions.
2. As part of the overall Health and Safety Plan (HASP) the Contractor must maintain, at all times, dust control measures to the satisfaction of the City or its authorized agent and shall monitor air quality at the site, as required, to protect workers and neighbors. The Contractor shall establish action levels for organic vapors, dusts, etc. to protect the health and safety of the employees and other on-site personnel.

## II. SITE GENERAL PROVISIONS

### A. GENERAL

1. The Contractor shall provide all labor, materials, tools, equipment and incidentals necessary for the preparation and completion of the Work.

### B. EXISTING PUBLIC UTILITIES

1. The Contractor shall contact MISS-DIG and other applicable local utility companies/authorities for utility identification a minimum of three (3) working days (72 hours) prior to any Work at the site. The Contractor shall comply with 1974 PA 53, as amended, MCL 460-701 et seq., and all other laws concerning underground utilities.

- a. The Contractor is to cut, cap and subsequently re-construct (if required) all underground utilities encountered during the Work. All such Work shall be considered incidental to the Contract.
  - b. The Contractor shall assume all risks attending to the presence or proximity of all underground and surface structure within or adjacent to the Work limits. The Contractor shall be responsible for all damage and expense for direct or indirect injury caused by the Work to any structure. The Contractor shall repair immediately all damage caused by the Work to the satisfaction of the owner of the damaged structure.
  - c. The Contractor shall sustain in their places and protect from direct or indirect injury all underground and surface structures located within or adjacent to the Work limits other than those specifically stated to be demolished. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structures. Before proceeding with the Work of sustaining and supporting each structure, the Contractor shall satisfy to the City or its authorized agent that the methods and procedures to be used have been approved by the party owning the same.
  - d. Wherever culverts, sewers, drains, manholes, catch basins, catch basin connections, water mains, valve chambers, electric conduits, telephone conduits, or any other underground constructions are encountered by the Contractor during the Work, they shall be protected and firmly supported by the Contractor, at the Contractor's expense, until the Work is complete and the existing structures are made secure. Injury to any such utilities/structures caused by or resulting from the Contractor's Work shall be repaired at the Contractor's expense and considered incidental to the Contract. The authority having charge of any particular underground structure shall be notified promptly of injury to its structure.
  - e. No additional compensation will be allowed for any delays, inconvenience, or damage sustained by the Contractor due to any interference from said utility appurtenances or the operation of moving them by the utility companies.
2. The Contractor shall conduct operations so as not to damage any existing utilities whether shown on Work plans or not. The Contractor shall correct, at their own expense, any injury caused during the operations of their subcontractors or suppliers.
  3. The Contractor shall make all the necessary arrangements for the provisions of all utility services, temporary or permanent, required under this Contract. The Contractor shall pay all costs for such connections and services and shall be considered incidental to the Contract.

#### C. CLEARING AND GRUBBING

1. Trees and shrubs are not to be removed unless required by the Work and/or with the express permission of the City or its authorized agent. Where trees are to be removed, the Contractor shall remove such trees and stumps to a depth of at least one (1) foot below the proposed finish grade. All stumps, logs, branches and debris shall be removed from the site and disposed of by the Contractor. All clearing and grubbing necessary to access the site and complete the Work shall be considered incidental to the Contract.

#### D. WORK AREA AND STORAGE OF MATERIALS

1. The working area shall be organized in an orderly manner with storage, sanitary facilities, parking areas for employees, and all other necessary facilities developed and maintained by the Contractor.

#### E. FINISH GRADING

1. After all backfilling and rough grading operations have been completed, the entire disturbed area at the site shall be graded to smooth, even surfaces to match pre-work conditions.
  - a. All debris, large stones, fallen and dead trees, and sticks shall be removed from the Work area and disposed of and the entire disturbed area made ready for the addition of topsoil and seeding.
2. After all Work related operations have been completed; the Contractor shall evenly spread four (4) inches of approved, clean topsoil over all graded areas, as directed by the City or its authorized agent.

#### F. SOIL CHARACTERIZATION SAMPLING

1. Waste characterization sampling, as required, will be the responsibility of the Contractor and shall be considered incidental to the Contract.

#### G. SOIL CONFIRMATION SAMPLING

1. Confirmation soil samples will be collected and submitted for laboratory analysis by the City or its authorized agent.

### III. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

#### A. GENERAL

##### 1. SCHEDULE OF VALUES

- a. Prior to commencement of Work, the Contractor must submit a Schedule of Values to the City for review and approval of various tasks that must be performed to complete the Work. The Schedule of Values must show each task and the corresponding value to complete each task including incidental costs. The aggregate total value for all tasks must be equal to the total Contract sum including approved alternate task values.
- b. The method of measurement and the basis of payment for each item in the Proposal will be as specified in the schedule attached. The items are generally grouped by the section of the Specifications under which the particular unit of Work is detailed. There will be no payment allowed for any unit for Work not specifically mentioned in the Proposal as a bid item, and any such unit of Work not mentioned in the Proposal, but necessary for the completion of the Work, will be considered as incidental to the Contract.

#### B. MEASUREMENT

1. Quantities of Work completed under the Contract will be measured by the City or its authorized agent according to the United States standard measures. When tons are specified, the unit shall be the ton of 2,000 pounds. When measurements are stated in miles, stations, acres, they will be horizontal measurements unless specified otherwise. Where measurements are specified to be "in place" they will be taken along the actual surface of the completed item to obtain lineal, area, or volume measurements. When Work is completed on a "lump sum" bases, the Work will be considered complete when all aspects of the task have been completed to the satisfaction of the City or its authorized agent.
2. Mobilization/Demobilization, site preparation and site service Work tasks shall not exceed 10% of the base bid amount. Cost of required submittals, permitting fees, temporary facilities and project meetings are incidental cost associated with the identified pay item "Site Preparation, Submittals, and Site Service" and "Mobilization and Demobilization".
3. Information regarding the quantities of the materials at the site, including the methods and assumptions used to estimate quantities, is provided in *Appendix II, Reports*.

#### C. PAYMENT

In each and every instance in the schedule attached, where a Basis of Payment is specified, it shall be understood to be prefaced by the following statement, "The Contract unit price in the Proposal will be payment in full for all labor, materials, and equipment necessary to do the following according to the Sheets and Specifications." Payment shall be made on the basis of the actual quantity of the time completed and accepted at the unit price for such item named in the Proposal.

### IV. PROJECT MEETINGS

#### A. GENERAL

##### 1. Pre-Construction Meeting

- a. The City will schedule a pre-construction meeting to be attended by its authorized agent and the Contractor. The Contractor shall attend and participate in the pre-construction meeting. The Contractor shall be prepared to discuss Project procedures, identify any Project issues that may arise and discuss any deviation from submitted plans. Once the Project has been started, the Contractor must carry it to completion without delay.

##### 2. PROGRESS MEETINGS

- b. The City or its authorized agent will schedule progress meetings to be held on the site, on an as-needed basis, to supply information necessary to prevent job interruptions, to observe the Work, or to inspect completed Work. The Contractor must be represented at each progress meeting by persons with full authority to act for the Contractor in regard to all portions of the Work.

### V. SUBMITTALS

#### A. GENERAL:

Within ten (10) working days following the Notice to Proceed, the Contractor shall submit two (2) copies of the following administrative submittals. The Contractor shall not initiate field activities until the City or its authorized agent has reviewed and accepted (as necessary) the following submittals:

<u>Submittal</u>	<u>Can be included in Work Plan</u>
HASP	No
Sample Daily Work Log	Yes
Sample Daily Progress and Site Safety Forms	Yes
Project Schedule	Yes
Schedule of Values	No
Waste Profile Approval	No
Work Plan	No
Notification of Intent to Renovate/Demolish	No
Building Permit	No
Soil Erosion Sedimentation Control (SESC) Implementation and Sequencing Plan	Yes
Scio Township Notification Form	No
Other Permits (If Applicable)	No

**B. APPLICABILITY**

This section applies to all administrative and technical submittals described in this document.

**C. PRE-WORK SUBMITTALS**

**1. Work Plan**

The Contractor shall develop, implement, and maintain a Work Plan for all site activities as part of this work. The Work Plan shall be submitted prior to proceeding with any Work. The cost of Work Plan preparation is incidental to the Contract. No adjustment for time or money will be made for re-submittals required as a result of noncompliance. The Work Plan shall, at a minimum, present the following:

- a. Description of the methods and equipment to be used for each operation (i.e., lead-impacted soil and surficial debris removal, well and septic tank abandonment, abatement, building demolition, transportation, disposal, sampling, etc.).
- b. Scheduling and operational sequencing.
- c. Temporary storage area for stockpiled demolition debris.
- d. Transportation companies.
- e. Licensed recycling and/or disposal facility.
- f. Method to protect any surface water bodies during demolition activities in close proximity of the site.
- g. Description of the means, methods, and procedures for site restoration.

**2. Health and Safety Plan**

The Contractor's HASP is provided to the City or its authorized agent for informational purposes only and for implementation by the Contractor. The City or its authorized agent may review the HASP for completeness. Comments will be provided to the Contractor, but no approval of the HASP will be granted. Following inclusion of the comments, the City or its authorized agent will accept the HASP.

- a. The site-specific HASP shall meet the requirements, at a minimum, of the following:
  - i. 29 CFR 1904 – Record Keeping, OSHA, as amended.
  - ii. 29 CFR 1910 – Safety and Health regulations for general Industry, OSHA, as amended.
  - iii. 29 CFR 1926: Safety and Health Regulations for Construction, OSHA, as amended.
  - iv. 49 CFR 171.8 – Hazardous Materials in Transport, USDOT, as amended.
  - v. 40 CFR 261.3, 264, and 265, RCRA, United States Environmental Protection Agency's (USEPA), as amended.
  - vi. Standard Operating Safety Guides, USEPA, November 1984.
  - vii. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, NIOSH Publication No. 85-115, October 1985.
- b. The HASP is an enforceable document that shall guide the activities of the Contractor's and all subcontractor personnel. The HASP shall define site-specific safety provisions required for all project activities of the Contractor and subcontractors.
- c. Hazard Communication Program – A hazard communication program shall be used in accordance with 29 CFR Part 1926.59.
- d. The Contractor and Contractor's safety officer shall be solely responsible for the implementation and monitoring of the Contractor's HASP. The HASP shall address, but not be limited to, the following items:
  - i. Describe the Contractor's proposed health and safety organization and procedures for continuous updating of the HAPS as required by actual Site conditions. The City or its authorized agent shall be notified in writing of any proposed changes to the HASP.

- ii. Identify the types and levels of training provided to all Site workers and other on-site personnel prior to their assignment to this Work. Provide the name, qualifications, and responsibilities of the Site Safety Officer and related health and safety staff. Provide appropriate certifications for all individuals who will be involved in the Work. No Contractor personnel shall participate in the Work until proper and up-to-date training certification has been submitted to the Professional.
  - iii. All on-site personnel involved in waste removal Work or handling of waste materials shall be enrolled in an ongoing medical monitoring program as identified in 29 CFR 1901, as amended, and shall be appropriately certified for the Work. The HASP shall describe the Contractors medical monitoring program. The Contractor shall provide documentation of each individual's certification under the medical monitoring program if and when requested by the Owner and Professional.
  - iv. The Contractor's HASP will identify the means of personal protection, including the use of engineering controls, to be used for each Work activity as defined in the USEPA *Standard Operating Safety Guides*. The HASP will identify conditions that would require an increased level of protection during each Work activity. Procedures for protecting personnel from other physical hazards (heat and cold stress, excessive noise, etc.) shall also be described in the HASP.
  - v. The Contractor's HASP shall provide a Contingency Plan that sets for the policies and procedures for responding to emergency situations such as fire, physical injury, release of hazardous materials, etc.
  - vi. The Contractor's HASP shall identify the procedures that will be used to ensure safe waste handling during the universal and other regulated waste removal and building demolition and removal activities.
  - vii. The Contractor shall provide an uncontaminated changing area for personnel. No person shall leave a contaminated Work area unless they have removed or decontaminated all protective clothing. No protective equipment (including boots) or tools shall be worn or carried out of the Work areas unless properly decontaminated.
  - viii. Personnel performing decontamination shall be dressed at appropriate levels of protection to avoid personal contamination.
  - ix. No vehicle shall leave the Work area with contaminated waste material or soil clinging to the wheels or any part of the vehicle is such a way that it has the potential for being deposited at any location other than the disposal facility.
  - x. The City or its authorized agent may require revisions to the HASP; however, extensions to the time period of this Contract will not be granted if caused by delays in developing an acceptable HASP.
  - xi. The Contractor shall conduct all operations in accordance with the HASP. Disregard for provisions of the HASP shall be deemed just and sufficient cause for suspension of Work and/or removal of the Contractor's personnel without comprise of prejudice to the rights of the City or its authorized agent.
3. SESC Implementation and Sequencing Plan. This Plan may be included as part of the Work Plan.
- a. The SESC Implementation and Sequencing Plan shall include a minimum of the following:
    - i. Implementation, schedule and sequence for installation and removal of temporary and permanent soil erosion and sedimentation control measures.
    - ii. Name and contact information of the person responsible for maintenance.
    - iii. The SESC Implementation and Sequencing Plan shall be based on Part 91 of P.A. 451 and the costs associated with all permit application and fees and work plan preparation shall be considered incidental to this Contract.
    - iv. The Contractor shall also submit to the City or its authorized agent a copy of the Certified Storm Water Operator's certificate from the State of Michigan and a copy of correspondence relating to termination of the Soil Erosion and Sedimentation Control Permit and other associated permits.

#### 4. Schedule of Values

Before the construction start date the Contractor must submit a Schedule of Values to the City or its authorized agent for review and approval, of the various tasks that must be performed to complete all the Work. The schedule must show each task and the corresponding value of the task, including separate monies allocated for General Condition items and Project close-out. The aggregate total value for all tasks must be equal to the total Contract sum.

#### 5. Daily Progress and Daily Site Safety Forms

The Daily Progress Forms shall outline the Work accomplished during the reporting period and Work to be accomplished during the subsequent reporting period, problems (real or anticipated) that should be brought to the attention of the City or its authorized agent, and notification of any significant deviation from previously agreed upon Work Plans. The Daily Site Safety Forms shall describe the safety meeting(s), any changes in protection, any safety incidents and results, and any changes to the HASP necessitated by site conditions.

#### 6. Project Schedule

The Contractor shall provide a Project Schedule that contains the following:

- a. Administrative and technical submittal dates and required approval dates.
- b. Work activities and durations with expected start and finish dates.
- c. Date of anticipated Substantial Completion.

d. Date of anticipated Final Completion.

7. Before Start of Work: Submit the following to the City or its authorized agent for review. Do not start work until these submittals are returned with written acknowledgement that the submittals have been received and accepted by the City or its authorized agent.
- a. AHERA Accreditation: Submit copies of certificates from an USEPA-approved AHERA Abatement Workers course for each worker as evidence that each asbestos Abatement Worker is accredited.
  - b. State of Michigan: Submit evidence that all workers have been trained, certified and accredited as required by the requirements set forth by the Michigan Department of Licensing and Regulatory Affairs (LARA).
  - c. Certificate Worker Acknowledgment: Submit an original signed copy of the Certificate of Worker's Acknowledgment (*Appendix III, Forms*) for each worker who is to be at the job site or enter the Work Area.
  - d. Report from Medical Examination: conducted within last 12 months as part of compliance with medical surveillance requirements for each worker who is to enter the Work Area. Submit, at a minimum, for each worker the following:
    - i. Name and Identification Number.
    - ii. The physician's written opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to asbestos.
    - iii. Any recommended limitations on the employee or on the use of personal protective equipment such as respirators.
    - iv. A statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.
    - v. A statement that the employee has been informed by the physician of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure (29 CFR 1926.1101(m)).
    - vi. A legible typed version of the physician's name, the physician's signature, and date of examination.
8. Notarized Certifications: Submit certification signed by an officer of the abatement contracting firm and notarized that exposure measurements, medical surveillance, and worker training records are being kept in conformance with 29 CFR 1926 and the requirements set forth by the LARA.

D. OTHER ADMINISTRATIVE SUBMITTALS

1. Daily Work Log

The Contractor shall maintain a daily log of Work activities, including the Work of suppliers and subcontractors. This log shall be in an acceptable and legible form. It shall include a description of the trades working on the project, the number of personnel working, the weather conditions encountered, any delays encountered, and acknowledgement of deficiencies noted along with the corrective actions taken on current and previous deficiencies noted along with the corrective actions taken on current and previous deficiencies. In addition, the log shall include factual evidence that the required activities have been performed, including but not limited to the following:

- a. Type and number of activities
- b. Nature of defects, causes for rejection, etc.
- c. Corrective actions taken
- d. Proposed remedial action
- e. Any spills that occurred

The log shall cover both conforming and defective or deficient features and shall include a statement that supplies and materials incorporated into the Work comply with the Contract requirements. Legible copies of the log shall be provided to the City or its authorized agent upon request.

2. Permits and Approvals

The Contractor shall provide the Professional with copies of all permits, inspection reports, approvals, licenses, exemptions or other governmental documents or submittals obtained or submitted as part of the Work. These documents shall be provided to the Professional in a timely manner.

3. Disposal Records

- a. Certifications: Written statement that Contractor shall dispose inert, impacted, and hazardous construction waste debris in accordance with the solid waste management plans of both the shipping and receiving counties. This statement shall be signed by an officer of the Contractor and shall be properly notarized.

b. Disposal Documents

The Contractor shall provide to the City and its authorized agent copies of all licenses, certifications, permits, agreements, manifests, chain-of-custody records, weigh tickets, meter recordings, delivery tickets, and receipts required or issued for the disposal or recycling of materials, the methods used, and the disposal or recycling areas and facilities. The Contractor shall also provide a copy of the results of tests performed to comply with the requirements of each disposal.

c. Manifests and Bills of lading

The Contractor shall submit to the City and its authorized agent a copy of the official manifest, bill of lading, and/or weigh ticket for each shipment of removed materials including, but not limited to, building debris, concrete and brick debris, and miscellaneous site debris and solid wastes evidencing delivery of the material to an approved licensed disposal/recycling facility. All manifests shall be in accordance with the requirements of all applicable Federal, State and local laws and regulations. Manifests shall be signed by the City and its authorized agent, on behalf of the City, and copies of the manifests or bills of lading shall be submitted to the City and its authorized agent within two (2) business days of the material leaving the site.

d. Contractor shall submit the following Submittals to the City and its authorized agent at least three (3) business days prior to pre-construction meeting for approval:

- i. The name and location of all disposal facilities that Contractor proposes to dispose of materials.
  - ii. The name and location of all companies that Contractor proposes to use for transporting materials to disposal facilities.
  - iii. The name and location of all testing laboratories Contractor proposes to use for testing samples.
  - iv. Copy of state and local licenses for waste hauler.
  - v. Michigan Identification Number of waste hauler.
  - vi. Name and address of waste disposal facility where hazardous waste materials are to be disposed including 1) contact person and telephone number; 2) copy of state license and permit; and 3) disposal facility permits.
  - vii. Specimen copy of Uniform Hazardous Waste Manifest form.
  - viii. Copy of USEPA "Notice of Hazardous Waste Activity" form.
  - ix. Copy of forms required by state and local agencies.
  - x. Sample of disposal label to be used.
- e. Waste Manifests: Contractor shall submit two (2) copies of uniform hazardous waste manifests for all impacted and hazardous debris taken off site. One (1) copy shall be submitted to City and its authorized agent within two (2) business days of the manifests being signed by the disposal facility.
- f. Disposal Facility Weight Tickets: Contractor shall submit disposal facility weight tickets to City or its authorized agent for all debris taken off site. Weight tickets shall be submitted to City and its authorized agent within one (1) business day of the debris or soil being disposed.
- g. Licenses: Contractor shall submit to the City or its authorized agent copies of all license required for the transportation vehicles and vehicle drivers that will be transporting inert, impacted, or hazardous construction waste. The licenses shall remain current throughout the duration of the work. In the case that a license expires, a copy of the renewed license shall be submitted to the Professional before the license expires.
- h. Disposal/recycling Log: Within five (5) business days of Substantial Completion, Contractor shall submit to City or its authorized agent one (1) copy of the waste disposal/recycling log that contains the following information:
- i. Date and time transportation vehicle left the site.
  - ii. Box volume of each transportation vehicle.
  - iii. Gross weight of each transportation vehicle.
  - iv. Tare weight of each transportation vehicle.
  - v. Net weight of each waste load disposed or recycled.
  - vi. Destination of each waste load disposed or recycled.
  - vii. Vehicle number.
  - viii. Driver name.
  - ix. Waste manifest number (if applicable) or certification of recycling.

4. Inspection Reports

The Contractor shall provide to the City or its authorized agent a copy of the records of inspections, tests, and any corrective action taken to address any problems encountered or generated throughout the duration of the Work.

5. During Work: Submit the following as required by the work.

Any laboratory chemical analysis or TCLP test results, as required to characterize waste for segregation, packaging and disposal purposes.

6. Punch List

The Contractor shall keep records of the Pre-Final and Final inspections, including a punch list of items that do not conform to the approved sheets and specifications. For each item on the list, the Contractor shall document corrective actions taken.

#### E. PRODUCTS

Not Used

#### F. EXECUTION

If the Contractor fails or refuses to comply with the submittal procedures promptly, the City may issue an order to stop all or part of the Work until satisfactory progress has been taken to correct such deficiencies. No part of the time loses due to any such stop orders shall be made the subject of claim or extension of time or for excess costs or damages by the Contractor.

### VI. FIELD ENGINEERING

#### A. GENERAL:

1. When applicable, the Contractor must employ properly trained, experienced, and licensed staff for specialized task or skills required to conduct the Work. The Contractor agrees to assume all responsibility due to improper, inaccurate or poor quality of any Work.

### VII. REGULATORY REQUIREMENTS

#### A. GENERAL:

Regulatory requirements include, but are not limited to, the following items:

1. Applicable Codes:
  - a. The Contractor shall comply with all Federal, State and Local rules, ordinances and the latest edition of regulations relating to buildings, employment, the preservation of public health and safety, and so forth. All applicable Federal, State, and local laws, ordinances, rules, and regulations are deemed to be included herein the same as though written in full. The Contractor shall comply with all authorities having jurisdiction over the Work. The following list of regulations does not necessarily include all regulations that may be applicable to Site activities and offsite transportation, recycling, or disposal. All regulations listed shall be as amended.
  - b. All necessary permits or certificates of inspection must be secured and their fees including inspection costs must be paid by the Contractor. The time incurred by the Contractor in obtaining construction permits must constitute time required to complete the Work and does not justify any increases to the Contract Time or Price, except when revisions to the Drawings and/or Specifications required by the permitting authority cause the Delays. The Contractor must pay all charges of Public Utilities for connections to the Work, unless otherwise provided by Cash Allowances specific to those connections.
  - c. All Works must be provided in accordance with the State Construction Code Act, 1972 PA 230, as amended, MCL 125.1501 et seq., International Building and Residential Codes and all applicable Michigan construction codes and fire safety including but not limited to: Michigan Building Code, Michigan Residential Code, Michigan Uniform Energy Code, Michigan Electrical Code, Michigan Rehabilitation Code for Existing Buildings, Michigan Mechanical Code, Michigan Elevator Code and Michigan Plumbing Code. If the Contractor observes that any Contract Document conflicts with any Laws or the State Construction Code or any permits in any respect, the Contractor must promptly notify the City and/or its authorized agent in writing. If the Contractor provides any Work knowing or having reason to know of such conflict, the Contractor shall be responsible for that performance.
2. Applicable Federal regulations regarding asbestos
  - a. Federal Regulations which govern asbestos abatement work or hauling and disposal of asbestos waste materials include, but are not limited to the following:
    - i. Asbestos School Hazard Abatement Reauthorization Act (ASHARA)
    - ii. Nation Emission Standards for Asbestos (NESHAP) (40 CFR 61, Subpart M)
    - iii. Asbestos Abatement Regulation (40 CFR 763)
    - iv. Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite (29 CFR, 1910, Section 1001 and 1926, Section 1101)
    - v. Respiratory Protection (29 CFR, 1910, Section 134 and 1926)
    - vi. Personal Protective Equipment for General Industry (29 CFR, 1910, Section 132 and 1926, Sections 95 - 107)
    - vii. Access to Employee Exposure and Medical Records (29 CFR, 1926, Section 33)
    - viii. Hazard Communication (29 CFR, 1926, Section 59)
    - ix. Specifications for Accident Prevention Signs and Tags (29 CFR, 1910, Section 145)
    - x. Permit Required Confined Space (29 CFR, 1910, Section 146)
    - xi. Construction Industry (29 CFR, 1910, Section 1001 and 1926, Section 1101)
    - xii. Construction Industry - General Duty Standards (29 CFR, 1926, Sections 20 - 35)
    - xiii. Shipyard Industry (29 CFR Part, 1915, Section 1001)
    - xiv. Asbestos Abatement Projects; Worker Protection Rule (40 CFR, 763, Subpart G)

- xv. Asbestos Hazard Emergency Response Act (AHERA) Regulation (40 CFR, 763, Subpart E)
  - xvi. EPA Model Accreditation Plan - Asbestos Containing Materials Final Rule & Notice (40 CFR, 763, Subpart E, Appendix C)
  - xvii. NESHAP (40 CFR, 61, Subpart A, and Subpart M (Revised Sub-part B)). The NESHAP asbestos regulations, notification form, guidelines and fact sheets are available on Michigan Department of Environmental Quality (MDEQ) web site [www.michigan.gov/deq](http://www.michigan.gov/deq) under heading Air; then click on Asbestos NESHAP Program.
- b. The disposal of hazardous wastes, including land disposal restricted wastes at treatment and disposal facilities that are appropriately permitted shall be done in accordance with the following:
- i. Resource Conservation and Recovery Act of 1976 (RCRA)
  - ii. Title II of Toxic Substances Control Act, As Amended Through P.L. 107-377, December 2002 (TSCA)
  - iii. Identification and Listing of Hazardous Waste (40 CFR 261)
  - iv. Generator Standards (40 CFR 262)
  - v. Transporter Standards (40 CFR 263)
  - vi. Treatment and Storage Disposal Facilities (TSDF) Standards (40 CFR 264)
  - vii. RCRA Land Disposal Restrictions (40 CFR 268)
  - viii. Hazardous Waste Permit Program (40 CFR 270)
  - ix. Toxic Substances Control Act (TSCA)
  - x. Polychlorinated Biphenyl (PCB) Manufacturing, Processing, Distribution, and use Prohibitions (40 CFR 761)
  - xi. Compliance with the USEPA off-site disposal policy. Prior to shipment of wastes to any facility, provide evidence to the City or its authorized agent that the facility has been inspected and found to be in compliance as required by USEPA's off-site disposal policy.
- c. The transport of wastes shall be done in accordance with the following:
- i. All applicable United States Department of Transportation (USDOT) rules and regulations
  - ii. USEPA rules and regulations, including, but not limited to the following:
  - iii. Hazardous Waste Management Systems (40 CFR 260)
  - iv. Standards Applicable to Generators (40 CFR 262)
  - v. Standards Applicable to Transporters of Hazardous Waste (40 CFR 263)
  - vi. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (49 CFR 264)
  - vii. National Emission Standards for Asbestos (40 CFR 61, Subpart M)
  - viii. PCB Manufacturing, Processing, Distribution, and Use Prohibitions (40 CFR 761)
  - ix. United States Department of Labor (USDOL) Occupational Safety and health Standards (29 CFR 1910)
  - x. USDOT Hazardous Material Regulations (49 CFR Subchapter C, Part 171-177)
  - xi. Hazardous Substances (49 CFR 171-172)
  - xii. USDOT Container Specifications (49 CFR 178-179)
  - xiii. Hazardous Material Regulations General Awareness and Training Requirements for Handlers, Loaders and Drivers (49 CFR, 171-180)
  - xiv. Hazardous Material Regulations Editorial and Technical Revisions (49 CFR, 171-180)
- d. All Site Work shall be conducted in accordance with the site-specific HASP and applicable regulations including, but limited to the following:
- i. USDOL Occupational Safety and Health Standards (29 CFR 1910, 1926)
  - ii. USEPA Hazardous Waste Management Systems (40 CFR 260)
  - iii. Standards Applicable to generators of Hazardous Waste (40 CFR 262)

## 2. State Regulations

- a. 1974 Public Act (PA) 154, Occupations Safety and Health Act, as amended
- b. The National Environmental Policy Act of 1969, as amended
- c. 1980 PA 299, Occupational Code, as amended
- d. 1994 PA 451, Natural Resources and Environmental Protection Act, as amended, to include, but not limited to the following:
  - i. 1994 PA 451, Part 17, Michigan Environmental Protection Act
  - ii. 1994 PA 451, Part 31, Water Resources Protection
  - iii. 1994 PA 451, Part 55, Air Pollution Control
  - iv. 1994 PA 451, Part 91, Soil Erosion and Sedimentation Control
  - v. 1994 PA 451, Part 111, Hazardous Waste Management
  - vi. Disposal of all wastes must comply with all intercounty waste management plans.
  - vii. Treatment of wastes through states other than Michigan shall be in compliance with all applicable requirements of those states.
  - viii. 1994 PA 451, Part 115, Solid Waste Management
  - ix. 1994 PA 541, Part 121, Liquid Industrial Wastes
  - x. 1994 PA 451, Part 147, PCB Compounds
  - xi. 1994 PA 451, Part 201, Environmental Response
  - xii. 1994 PA 451, Part 301, Inland Lakes and Streams
  - xiii. 1994 PA 451, Part 303, Wetlands Protection
- e. 1984 PA 423, Section 2 and 7, being Sections 29.3c, 299.702, and 288.707 of the Michigan Compiled Laws, as amended.
- f. Disposal shall be in compliance with Administrative Circular 36A.
- g. Transportation and traffic control, repairs to sidewalks or curbs, etc. shall be in compliance with 2012 Standard Specifications for Construction, Michigan Department of Transportation (MDOT), as amended.
  - i. West Huron River Drive has poor sight distance, no shoulder, and is enjoyed by local bicyclists. Caution is warranted when entering and leaving the site.
- h. State Requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials include, but are not limited to the following:
  - i. The USEPA has delegated the Air Quality Division (AQD) of the MDEQ with the authority to enforce the Asbestos NESHAP in Michigan. Michigan has adopted the federal regulations into the Michigan Administrative Code (MAC), 1995 AACRS R336.1942 (Rule 942), effective on December 31, 2003. The MDEQ-AQD conducts notification reviews, demolition and removal activities and initiates enforcement actions when violations occur. Disposal of asbestos is regulated by the Resource Management Division (RMD) of the MDEQ.
  - ii. The Construction Safety and Health Division of the Michigan Department of Licensing and Regulatory Affairs (LARA) implements the Asbestos Abatement Contractors Licensing Act, the Michigan Occupational Safety and Health Act (MIOSHA), the Asbestos Workers Accreditation Act, the MIOSHA Asbestos General Industry Standard, and the MIOSHA Asbestos Construction Standard. LARA also licenses asbestos contractors, approves training courses, accredits workers and conducts AHERA management plan review. For guidelines on submitting notifications pursuant to the Asbestos Contractors Licensing Act, contact the LARA at (517) 322-1320 or visit LARA's web site [www.michigan.gov/asbestos](http://www.michigan.gov/asbestos).
  - iii. Michigan State Police Department (MSPD) - The Hazardous Materials Unit of the Motor Carrier Division, (MSP) is responsible for enforcing the USDOT and MDOT regulations regarding shipping and transporting of packaged materials by highway.

## 3. Local Requirements

- a. The Contractor shall ascertain and comply with all applicable county and municipal ordinances, codes, rules, and regulations and obtain all required permits.
- d. Other Codes, Standards, and Guidance Documents
  - a. In addition to regulatory requirements, the Contractor shall follow the codes, standards, and guidance documents cited in other sections of these specifications such as, but not limited to, American Petroleum Institute (API) Recommended Practices, Environmental Protection Agency (EPA) Guidance Documents, Michigan State Memoranda and Administrative Circulars, and ASTM Standards.

- b. Other national codes not specifically cited in other sections of these specification with which the Contractor shall comply include, but may not be limited to the following:
  - i. Building Officials and Code Administrators (BOCA) *Basic Building Code*
  - ii. Associated General Contractors of America (AGC) *Manual of Accident Prevention in Construction*
  - iii. National Electric Code (NEC)
- e. Safety and Protection
  - a. The Contractor and its Subcontractors/Suppliers must comply with all applicable Federal, State and local Laws governing the safety and protection of persons or property, including, but not limited to the MIOSHA, 1974 PA 154, as amended, MCL 408.1001 et seq., and all rules promulgated under the Act.
  - b. The Contractor is responsible for all damages, injury or loss to the Work, materials, equipment, fines, and penalties as a result of any violation of such Laws, except when it's due to the fault of the Drawings or Specifications or to the Act, error or omission of the City or it authorized agent.
  - c. The Contractor is solely responsible for initiating, maintaining and supervising all safety precautions and programs and such responsibility must continue until such time as the City or it authorized agent is satisfied that the Work, or Work inspected, is completed and ready for final payment.
  - d. In doing the Work and/or in the event of using explosives, the Contractor must take all necessary precautions for the safety of, and must erect and maintain all necessary safeguards and provide the necessary protection to prevent damage, injury or loss to: (a) all employees on the Work and other persons who may be affected by the Work, (b) all the Work and materials and equipment to be incorporated into the Work, whether stored on or off the site, and (c) other property at or adjacent to the site, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Utilities not designated for removal, relocation or replacement.
  - e. In the event of severe weather, the Contractor must inspect the Work and the site and take all reasonably necessary actions and precautions to protect the Work and ensure that public access and safety are maintained.

**B. NOTICES:**

- 1. State of Michigan:
  - a. Send written notification as required by state and local regulations prior to beginning any work on ACM. A copy of the State of Michigan Notification of Intent to Renovate/Demolish is provided in Appendix III.

**C. PERMITS AND NOTIFICATIONS:**

- 1. All asbestos containing waste is to be transported by an entity maintaining a current "Industrial waste hauler permit" specifically for ACM, as required for transporting of waste ACM to a disposal site.
- 2. The Contractor is responsible for obtaining any demolition, building, renovation, SESC, right-of-way (ROW), or other permits and notifications, and for paying application fees and scheduling inspections, if any, where required by State or Local jurisdictions
  - a. Permits include, but are not limited to the following:

Permit	Cost	Performance Guarantee
Washtenaw County Building Permit	TBD	N/A
Washtenaw County SESC Permit	\$160.00	\$500.00
Scio Township Notification Form	\$50.00	N/A

- 3. All necessary permits or certificates of inspection must be secured and their fees including inspection costs must be paid by the Contractor. The time incurred by the Contractor in obtaining construction permits must constitute time required to complete the Work and does not justify any increases to the Contract Time or Price, except when revisions to the Drawings and/or Specifications required by the permitting authority cause the Delays.

**D. ENVIRONMENTAL REQUIREMENTS**

- 1. The Contractor and its Subcontractors/Suppliers must comply with all applicable Federal, State and local environmental Laws, standards, orders or requirements including but not limited to the National Environmental Policy Act of 1969, as amended, Michigan Natural Resources and Environmental Protection Act, P.A. 451 of 1994, as amended, the Clean Air Act, as amended, the Clean Water Act, as amended, the Safe Drinking Water Act, as amended, Pollution Prevention Act, as amended, Resource Conservation and Recovery Act, as amended, National Historic Preservation Act, as amended and Energy Policy and Conservation Act and Energy Standards for Buildings Except Low-Rise Residential Buildings, ANSI/ASHRAE/IESNA Standard 90.1-1999.
- 2. The Contractor and its Subcontractors/Suppliers must comply with Due Care requirements as stated in the *Due Care Plan* prepared by The Mannik and Smith Group, Inc. dated January 17, 2014. A copy of the Due Care Plan in included in Appendix II.

**E. LICENSES:**

1. Maintain current licenses as required by applicable state or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this contract.

**F. POSTING AND FILING OF REGULATIONS**

1. Post all notices (including permits) required by applicable federal, state and local regulations. Maintain two (2) copies of applicable federal, state and local regulations and standards. Maintain one copy of each at job site. Keep on file in Contractor's office one copy of each.

**G. SUBMITTALS:**

1. Before Start of Work: At the request of the City or its authorized agent, submit the following for review. Do not start work until these submittals are returned with written acknowledgement that the submittals have been received and accepted by the City or its authorized agent.
  - a. Permits, Licenses, and Certificates: Submit copies of current valid permits required by state and local regulations.
  - b. Notices: Submit notices required by federal, state and local regulations together with proof of timely transmittal to agency requiring the notice.
  - c. Licenses: Submit copies of all State and local licenses and permits necessary to carry out the Work of this contract.

**VIII. REFERENCES**

**A. GENERAL:**

1. References will be made in an abbreviated alpha numeric form to specific standard specifications, reference publications and building codes of federal or state agencies, manufacturers, associations or trade organizations. Such references will be identified by the alphabetic abbreviation which identifies the government agency, the association or organization followed by the rule, section or detail number that are to form a part of these specifications, the same as if fully set forth herein, and must be of latest issued date in effect three months before the Bid opening date shown on the Proposal and Contract.

**IX. SPECIAL PROJECT PROCEDURES**

**A. GENERAL:**

1. The Contractor must post appropriate construction signs to advise visitors of the limits of construction work areas, hardhat areas, abatement areas, excavations, construction parking and staging areas, etc. The Contractor must maintain safe and adequate pedestrian and vehicular access to fire hydrants, commercial and industrial establishments, churches, schools, parking lots, hospitals, fire and police stations and like establishments.
2. Barrier and Enclosures:
  - a. The Contractor must furnish, install and maintain as long as necessary and remove when no longer required adequate barriers, warning signs or lights at all dangerous points throughout the Work for protection of property, workers and the public. The Contractor must hold the City and its authorized agent harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the Work under the Contract.
  - b. Temporary Fence: The Contractor must entirely enclose the Work area by means of woven wire or snow fence having minimum height of four feet. Gates must be provided at all points of access. Gates must be closed and secured in place at all times when Work under the Contract is not in progress. The fence must be removed and grounds restored to original condition upon completion of the Work.
  - c. Street Barricades: If necessary, the Contractor must erect and maintain all street barricades, signal lights and lane change markers during the periods that a traffic lane is closed for their operations. There must be full compliance with rules and ordinances respecting such street barricading and devices must be removed when hazard is no longer present.
3. Construction Aid:
  - a. The Contractor must furnish, install, and maintain as long as necessary and remove when no longer required, safe and adequate scaffolding, ladders, staging, platforms, chutes, railings, hoisting equipment, etc., as required for proper execution of the Work. All construction aids must conform to Federal, State, and local codes or Laws for protection of workers and the public.
  - b. Debris Chute: If necessary, the Contractor must use a chute to lower debris resulting from their Work. The chute must be the enclosed type with its discharge directly into the truck or approved container.
  - c. Pumping and Drainage: The Contractor must provide all pumping necessary to keep areas free from water the entire period of Work on the Contract. The Contractor must construct and maintain any necessary surface drainage systems on the Work site so as to prevent water entering existing structures or to flow onto public or private property adjacent to the Agency's land, except for existing drainage courses or into existing drainage systems. The Contractor must prevent erosion of soils and blockage of any existing drainage system.

## **X. ASBESTOS ABATEMENT SPECIAL PROJECT PROCEDURES**

### **A. GENERAL:**

1. The NESHAP asbestos regulations, notification form, guidelines and fact sheets are available on DEQ's web site [www.michigan.gov/deq](http://www.michigan.gov/deq) under heading Air; then click on Asbestos NESHAP Program. For guidelines on submitting notifications pursuant to the Asbestos Contractors Licensing Act, contact the LARA at (517) 322-1320 or visit LARA's web site [www.michigan.gov/asbestos](http://www.michigan.gov/asbestos).
2. The Work of this contract involves activities that will disturb ACMs. Non-friable ACMs, chemicals, refrigerants and universal and other regulated wastes are present at various locations within in vacant residential building. The approximate locations, type, and approximate quantities of these materials known to be present at the worksite is provided in Appendices II. Using the available information contained in these specifications; the Contractor is expected to verify the quantity of ACMs and adjust his bid accordingly. ACMs that are hidden from view and unexpected ACMs, if encountered during demolition preparation or demolition, will also require abatement and shall be considered the Contractor's responsibility.
3. The MDEQ requires that friable ACM and non-friable ACM, that can become friable during demolition, referred to in the regulations as regulated asbestos containing material (RACM), be removed prior to demolition of a building. The RACM includes presumed asbestos containing material (PACM) unless adequate testing demonstrates it is not asbestos.

### **B. HEALTH RISK:**

1. The disturbance or dislocation of ACMs or PACMs may cause asbestos fibers to be released into the building's atmosphere, thereby creating a potential health risk to workers and building occupants. Apprise all workers, supervisory personnel, Subcontractor's and consultants who will be at the Work site of the risks and proper work procedures which must be followed.
2. Where in the performance of the Work, workers, supervisory personnel, Subcontractor's, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of any identified ACMs; take appropriate continuous measures as necessary to protect all building occupants from the risk of exposure to airborne asbestos. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable federal, state and local agencies.

### **C. PERSONAL MONITORING:**

1. The City and its authorized agent will not perform air monitoring for the Contractor to meet Contractor's OSHA requirements for personal sampling or any other purpose.

## **XI. QUALITY CONTROL**

### **A. GENERAL**

1. Project Oversight
  - a. The City or its authorized agent will provide Project oversight to document that the Project is completed in accordance with the specifications and approved sheets. The Contractor will notify the City or its authorized agent when each Work task identified in the Contractor's Schedule of Values is completed. The City or its authorized agent will inspect and certify the Work has been completed satisfactorily or provide a punch list of items needed to correct any Work deficiencies.
2. Testing Laboratory Services
  - a. All tests required by the County must fulfill ASTM, ANSI, Commercial and other Standards for testing. The Contractor must submit a minimum of three (3) copies of each test report to the City or its authorized agent for evaluation and subsequent distribution.
  - b. Waste characterization sampling, as required, will be paid for by the Contractor and shall be considered incidental to the Contract.

## **XII. CONSTRUCTION FACILITIES AND TEMPORARY ENVIRONMENTAL CONTROLS**

### **A. GENERAL**

1. The Contractor must furnish and install all temporary facilities and controls required by the Work and must remove them from site upon completion of the Work, and the grounds and existing facilities must be restored to their original condition.
2. Neither water nor electricity is available at the site.
3. Temporary Sanitary Facilities:
  - a. The Contractor must provide and maintain a sufficient number of portable temporary toilets that comply with all Federal, State, and local code requirements in locations approved by the City or its authorized agent. The Contractor must maintain the temporary toilets in a sanitary condition at all times and must remove them when the Work under this Contract is complete.

4. The Contractor shall provide and maintain methods, equipment, and temporary construction as necessary to provide controls over environmental conditions at the Work site and adjacent areas. Remove physical evidence of temporary facilities at the completion of the Work.
5. Noise Control:
  - a. The Contractor's vehicles and equipment shall be such as to minimize noise to the greatest degree practicable. Noise levels shall conform to the latest OSHA standards, applicable local ordinances, and in no case will noise levels be permitted which interfere with the Work of the City or its authorized agent, adjacent property owners, or others.
6. Dust Control:
  - a. The Contractor shall control the formation of dust as required by Federal, State, and local authorities and shall comply with local ordinances related to dust control. In addition to the aforementioned requirements, the Contractor shall control dust formation at the site so the 0.150 milligrams per cubic meter (mg/m<sup>3</sup>) limit is not exceeded at the limits of the Work shown on the drawings located in Appendix I. If a dust concentration limitation of less than 0.150 mg/m<sup>3</sup> is imposed or required by one of the aforementioned authorities, the Contractor shall be responsible for controlling dust formation to the more restrictive limit.
4. Water Control:
  - a. The Contractor shall provide methods to control surface water and water from demolition to prevent damage to the Work, the site, or adjoining properties.
  - b. The Contractor shall control fill, backfilling, and ditching and provide temporary covers required to direct water away from the Work area and to direct drainage to proper runoff courses so as to prevent any erosion, damage, or nuisance.
  - c. The Contractor shall provide, operate, and maintain equipment and facilities of adequate size to control surface water.
  - d. The Contractor shall dispose drainage water and accumulated storm water in a manner to prevent flooding, erosion, contamination, or other damage to a portion of the site or adjoining property and in conformance with all environmental regulations. Water disposal costs shall be the responsibility of the Contractor and shall be considered incidental to the Contract.
5. Pollution Control:
 

The Contractor shall:

  - a. Provide methods, means, and facilities required to prevent contamination of soil, water, or atmosphere by the discharge of noxious substances from the Work.
  - b. Provide methods, means, and facilities required to prevent vehicles from tracking soil and debris offsite.
  - c. Provide equipment and personnel; perform emergency measures to contain any spillages; and remove soils or liquids contaminated by spills.
  - d. Take special measures to prevent harmful substances from entering public waters.
  - e. Provide systems for control of atmospheric pollutants.
  - f. The Contractor's and sub-contractors equipment used during the Work shall conform to all current Federal, State and local laws and regulations.

### **XIII. MATERIALS AND EQUIPMENT**

#### **A. GENERAL**

1. The Contractor must furnish and be responsible for all materials, equipment, facilities, tools, supplies and utilities necessary for completing the Work. All materials and equipment must be provided as described in the Contract Documents and of good quality, free of defect and new and must be applied, installed, connected, erected, used, cleaned and conditioned following the manufacturer's and Suppliers' instructions.
2. Delivery, Storage, and Handling
  - a. All materials and equipment delivered to and used to complete the Work must be suitably stored and protected from the elements. The areas used for storage must only be those approved by the City or its authorized agent. After delivery, before and after the Work, the Contractor must protect materials and equipment against theft, injury or damage from all causes. The City assumes no responsibility for stored material. For all materials and equipment, the Contractor must provide complete information on installation, operation and preventive maintenance.
3. The Contractor must cover and protect any bulk materials while in storage which is subject to deterioration because of dampness, the weather, or contamination. The Contractor must keep materials in their original, sealed containers, unopened, with labels plainly indicating manufacture's name, brand, type, and grade of material and must immediately remove from the Work site, containers which are broken, opened, watermarked, and/or contain caked, lumpy, or otherwise damaged materials.
4. The Contractor must keep equipment stored outdoors from contact with the ground, away from areas subject to flooding and covered with weatherproof plastic sheeting or tarpaulins.
5. The Contractor must certify that any materials stored off-site are:

- a. Stored on property owned or leased by the Contractor.
- b. Insured against loss by fire, theft, flood or other hazards.
- c. Properly stored and protected against loss or damage.
- d. In compliance with the sheet and specifications.
- e. Specifically allotted, identified, and reserved for the Project.
- f. Itemized for tracking and payment.
- g. Subject to these conditions until the items are delivered to the site.

#### **XIV. CONTRACT CLOSE-OUT**

##### **A. GENERAL**

###### **1. Substantial Completion**

- a. The Contractor must notify the City or its authorized agent, when the Work will be substantially complete. If the City or its authorized agent agrees that the Work is Substantially Complete, the City or its authorized agent will inspect the Work. The City or its authorized agent will prepare a Punch List and will attach it to the respective Certificate of Substantial Completion upon determining that the Work or a portion of the Work inspected is Substantially Complete. The Contractor must be represented on the job site at the time this inspection is made and thereafter must complete all Work by the date set for final acceptance by the City or its authorized agent.

###### **2. Cleaning**

###### **a. Regular Cleaning**

- i. The Contractor must remove all scrap or removed material, debris or rubbish from the Work site at the end of each working day and more frequently whenever the City or its authorized agent deems such material to be a hazard. No salvage or surplus material may be sold on the premises of the Work. No burning of debris or rubbish is allowed. Any recycled materials must be recycled by the Contractor.

###### **b. Final Cleaning**

- i. The Contractor shall maintain all seeded areas until final inspection. Maintenance includes repairing any areas damaged following seeding operations or until permanent erosion control is established and shall be considered incidental to the Contract. Such damaged areas shall be repaired to re-establish the condition of the grade of the area prior to seeding and then be re-seeded.
- ii. Before final acceptance by the City or its authorized agent, the Contractor will leave the Work area in a manner consistent with pre-work conditions. The Contractor will be responsible to make repairs for any damage or blemish that was caused by the Work and shall be considered incidental to the Contract.

**DIVISION 02**  
**SPECIFIC REQUIREMENTS**

## **I. MAINTENANCE OF EXISTING CONDITIONS**

### **A. GENERAL**

#### **1. Job Conditions**

- a. The Contractor shall be responsible for taking all precautions, providing all programs, and taking all actions necessary to protect the Work and all public and private property from damage.
- b. In order to prevent damage, injury or loss; the Contractor's actions shall include, but are not limited to, the following:
  - i. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with the progress of the Work or the work of any other Contractor or utility service company.
  - ii. Provide suitable storage facilities for all materials that are subject to injury by exposure to weather, theft, breakage, or otherwise.
  - iii. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
  - iv. Clean up frequently all refuse, rubbish, scrap materials, and debris caused by Work operations, to the end that at all times the site of the Work shall present a safe, orderly, and workmanlike appearance.
  - v. The restoration of existing property, except for those stated to be demolished elsewhere in this Contract shall be done as promptly as practicable and shall not be left until the end of Work.
  - vi. Protection of trees designated by the City or its authorized agent
- c. The Contractor shall not, except after written consent from proper parties, enter or occupy privately owned land with men, tools, material, or equipment.
  - i. The Contractor shall assume full responsibility for the preservation of all public and private property on or adjacent to the Site. If any direct or indirect damage is done by or on account of any act, mission, neglect, or misconduct in the execution of the Work by the Contractor or its sub-contractors, it shall be restored by the Contractor to a pre-work condition and shall be considered incidental to the Contract.
- d. The Contractor shall allow the City or its authorized agent, other contractors, and public service corporations, or their agents, to enter upon the Work site for the purpose of constructing, maintaining, repairing, removing, altering or replacing such pipes, sewers, conduits, manholes, wires, poles, or other structures and appliances as are not located or as may be required or permitted at or on the Work site by the City or its authorized agent. The Contractor shall cooperate with all aforesaid parties and shall allow reasonable facilities for the prosecution of any other Work by others to be done in connection with this Work. Care shall be taken at all times to inconvenience abutters as little as possible.
- e. Temporary provisions shall be made by Contractor to insure proper functioning of all gutters, sewer inlets, drainage ditches, which shall not be obstructed except as approved by the City or its authorized agent.

## **II. SOIL EROSION AND SEDIMENTATION CONTROL**

### **A. GENERAL:**

#### **1. WORK REQUIRED**

- a. The Contractor shall furnish, install, and maintain as long as necessary and remove when no longer required, all necessary engineering controls to prevent erosion and sedimentation of onsite soils as required by, and in accordance with Part 91 of P.A. 451 and any Federal, State, and local soil erosion and sedimentation control permit.
- b. The Contractor shall be responsible for all application fees and all necessary permits for soil erosion and sedimentation control, prior to the commencement of Work.
- c. The Contractor shall provide a State of Michigan Certified Storm Water Operator for Construction Sites to fulfill the requirements for coverage under the State's regulations for storm water discharge from construction sites.

### **B. PRODUCTS**

#### **1. MATERIALS**

- a. Material used for permanent and temporary erosion and sedimentation controls shall meet the requirements as described in MDOT's 2012 Standard Specifications for Construction.

### **A. EXECUTION**

#### **1. GENERAL**

- a. **Pumping and Drainage:** The Contractor shall provide all pumping necessary to keep the Work area free from water for the duration of the Work. The Contractor shall construct and maintain any necessary surface drainage systems on the Work site so as to prevent water from entering existing structures, flowing onto public or private property adjacent to the site, into existing drainage courses or existing drainage systems. The Contractor shall prevent

erosion of soils and blockage of any existing drainage system, such as storm sewers. The related costs shall be considered incidental to this Contract.

- b. The Contractor shall design and construct temporary terrain features such as slope and drainage ways to minimize erosion potential of the exposed site, based on the soil type, time of year, proximity to water ways and surface water, duration of exposure, length and steepness of the slope, and the anticipated volume and intensity of runoff.
- c. The Contractor shall minimize the surface area of un-stabilized soils left unprotected and vulnerable to runoff and wind at all times.
- d. The Contractor shall minimize the amount of time that un-stabilized areas are exposed to erosive forces.
- e. When possible, the Contractor shall protect and shield exposed soil areas with live vegetation cover, or other approved erosion resistant material during the temporary and permanent control periods of Work.
- f. The Contractor shall avoid concentrating runoff. When concentrated runoff cannot be avoided, runoff velocities shall be reduced to non-erosive velocities.
- g. Eroded sediments will be trapped onsite with temporary and permanent barriers, basins, or other sediment retention devices, while allowing for controlled discharge of runoff waters at non-erosive velocities.
- h. The Contractor shall implement a continuous inspection and maintenance program.
- i. The Contractor shall implement and follow the SESC Plan and any other applicable requirements and regulations for the duration of the Work.
- j. The Contractor shall be responsible for notifying the appropriate agencies, upon completion of Work, that the SESC Permit and coverage under the State's General Storm Water Permit for Construction Sites are no longer needed and should be terminated. This notification shall be made in writing and a copy of the notification shall be submitted to the City or its authorized agent.

## 2. REMOVAL

- a. The Contractor shall removal all materials used for temporary soil erosion and sedimentation control form the site, upon completion of site activities.

### III. WORKER PROTECTION

#### A. GENERAL

##### 1. DESCRIPTION OF WORK:

- a. This section describes the equipment and procedures required for protecting workers against asbestos and lead contamination and other workplace hazards except for respiratory protection.

#### B. WORKER TRAINING:

1. AHERA Accreditation: All workers are to be accredited as Abatement Workers as required by the EPA Model Accreditation Plan (MAP) asbestos abatement worker training (40 CFR Part 763, Subpart E, Appendix C) and the requirements set forth by the LARA.
2. OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER). All workers are required to be certified 40 hour HAZWOPER trained (29 CFR 1910.120 (e)).
3. State and Local Requirements: All workers are to be trained, certified and accredited as required by the requirements set forth by the LARA.

#### C. MEDICAL SURVEILLANCE:

1. Provide a medical surveillance program in accordance with OSHA standard (29 CFR 1926.1101) and requirements set forth by the LARA.
2. Provide a medical surveillance program and physician's opinion before a respirator is assigned as required by 29 CFR 1910.134 and 29 CFR 1926.103(e)(10) and the requirements set forth by the LARA.
3. Provide medical examination that as a minimum meets OSHA requirements as set forth in 29 CFR 1926.1101 and the requirements set forth by the LARA. In addition, require that the physician provide an evaluation of the individual's ability to work in environments capable of producing heat stress in the worker.

#### D. EQUIPMENT

##### 1. PROTECTIVE CLOTHING:

- a. Provide and require the use of protective clothing for ACM abatement and lead-impacted soil removal activities as required by OSHA and the requirements set forth by the LARA.
- b. Provide and require the use of protective clothing for other non-ACM abatement activities as required by OSHA and the requirements set forth by the LARA.

#### E. SIGNS:

1. Post an approximately 20-inch by 14-inch manufactured caution sign at each entrance to the asbestos-containing Work Area displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:
  - a. Provide signs in both English and Spanish.
  - b. Legend:
 

**DANGER**  
**ASBESTOS**  
**CANCER AND LUNG DISEASE HAZARD**  
**AUTHORIZED PERSONNEL ONLY**  
**RESPIRATORS AND PROTECTIVE CLOTHING**  
**ARE REQUIRED IN THIS AREA**
  - c. Provide spacing between respective lines at least equal to the height of the respective upper line.
2. Post an approximately 10-inch by 14-inch manufactured sign at each entrance to each Work Area displaying the following legend with letter sizes and styles of a visibility at least equal to the following:
  - a. Provide signs in both English and Spanish.
  - b. 

<u>Legend</u>	<u>Notation</u>
<b>NO FOOD, BEVERAGES OR TOBACCO PERMITTED</b>	$\frac{3}{4}$ -inch Block
<b>ALL PERSONS SHALL DON PROTECTIVE CLOTHING (COVERINGS) BEFORE ENTERING THE WORK AREA</b>	$\frac{3}{4}$ -inch Block
<b>ALL PERSONS SHALL SHOWER IMMEDIATELY AFTER LEAVING WORK AREA AND BEFORE ENTERING THE CHANGING AREA</b>	$\frac{3}{4}$ -inch Block

## F. EXECUTION

1. GENERAL:
  - a. Provide worker protection as required by the most stringent OSHA, LARA, and/or USEPA standards applicable to the work. The following procedures are minimums to be adhered to regardless of fiber count in the Work Area.
  - b. Each time Work Area is entered remove all street clothes in the Changing Room of the Personnel Decontamination Unit and put on new disposable coverall, new head cover, and a clean respirator. Proceed through shower room to equipment room and put on work boots.
2. DECONTAMINATION PROCEDURES:
  - a. Require all workers to adhere to the following personal decontamination procedures whenever they leave the Work Area:
  - b. Type C Supplied Air or Powered Air-Purifying Respirators: Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the Work Area:
    - i. When exiting area, remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.
    - ii. Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is required as a minimum:
    - iii. Thoroughly wet body including hair and face. If using a Powered Air-Purifying Respirator (PAPR) hold blower unit above head to keep canisters dry.
    - iv. With respirator still in place thoroughly wash body, hair, respirator face piece, and all parts of the respirator except the blower unit and battery pack on a PAPR. Pay particular attention to seal between face and respirator and under straps.
    - v. Take a deep breath; hold it and/or exhale slowly, completely wet hair, face, and respirator. While still holding breath, remove respirator and hold it away from face before starting to breath.
    - vi. Carefully wash face piece of respirator inside and out.
  - c. If using PAPR: shut down in the following sequence, first cap inlets to filter cartridges and then turn off blower unit (this sequence will help keep debris which has collected on the inlet side of filter from dislodging and contaminating the outside of the unit). Thoroughly wash blower unit and hoses. Carefully wash battery pack with wet rag. Be extremely cautious of getting water in battery pack as this will short out and destroy battery.
    - i. Shower completely with soap and water.
    - ii. Rinse thoroughly.
    - iii. Rinse shower room walls and floor prior to exit.
    - iv. Proceed from shower to Changing Room and change into street clothes or into new disposable work items.
  - d. Air Purifying-Negative Pressure Respirators: Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the Work Area with a half or full face cartridge type respirator:

- i. When exiting area, remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the Equipment Room.
- ii. Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator and filters to avoid asbestos fibers while showering. The following procedure is required as a minimum:
  - 1) Thoroughly wet body from neck down.
  - 2) Wet hair as thoroughly as possible without wetting the respirator filter if using an air purifying type respirator.
  - 3) Take a deep breath, hold it and/or exhale slowly, complete wetting of hair, thoroughly wetting face, respirator and filter (air purifying respirator). While still holding breath, remove respirator and hold it away from face before starting to breath.
  - 4) Dispose of wet filters from air purifying respirator.
  - 5) Carefully wash face piece of respirator inside and out.
  - 6) Shower completely with soap and water.
  - 7) Rinse thoroughly.
  - 8) Rinse shower room walls and floor prior to exit.
  - 9) Proceed from shower to Changing Room and change into street clothes or into new disposable work items.
- e. Remote Shower: The procedures above are to be used if the decontamination facility is used as a remote shower. If a worker cannot gain direct access to the Equipment Room require that he enter Decontamination Unit and proceed directly through Shower Room to Equipment Room. Decontamination procedure is then completed as required above.
- f. Within Work Area: Require that workers NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Work Area. To eat, chew, drink or smoke, workers shall follow the procedure described above and then dress in street clothes before entering the non-Work Areas of the building.

#### IV. RESPIRATORY PROTECTION

##### A. GENERAL

##### 1. DESCRIPTION OF WORK:

- a. Instruct and train each worker involved in asbestos abatement of friable asbestos-containing materials and lead-impacted soil removal activities in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face in the Work Area from the start of any operation which may cause airborne asbestos fibers or particulate matter until the Work Area is completely decontaminated. Use respiratory protection appropriate for the levels encountered in the work place or as required for other toxic or oxygen-deficient situations encountered.

##### 2. DEFINITIONS:

- a. "Negative Pressure Respirator": A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.
- b. "Protection Factor": The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.
- c. "Respirator": A device designed to protect the wearer from the inhalation of harmful atmospheres.

##### 3. STANDARDS:

- a. Except to the extent that more stringent requirements are written directly into the Contract Documents, the latest edition of the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.
  - i. OSHA U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards Section 29 CFR 1910.1001, Section 1910.134, and Section 29 CFR 1926.1101.
  - ii. CGA Compressed Gas Association, Inc., New York, Pamphlet G-7, "Compressed Air for Human Respiration", and Specification G-7.1 "Commodity Specification for Air".
  - iii. ANSI American National Standard Practices for Respiratory Protection, ANSI Z88.2.
  - iv. NIOSH National Institute for Occupational Safety and Health.
  - v. NIOSH Respirator Decision Logic (May 1987) DHHS/NIOSH Publication No. 87-108; NIOSH/EPA, "A Guide to Respiratory Protection for the Asbestos Abatement Industry" EPA-560-OPTS-86-001 (September 1986); 42 CFR 84, NIOSH Standard for Certification of Non-Powered Air Purifying Respirator filters; 30 CFR 11, NIOSH - Certification of Respirators.
  - vi. MSHA Mine Safety and Health Administration.

- vii. The requirements set forth by the LARA.

**B. SUBMITTALS:**

1. Before Start of Work: At the request of the City or its authorized agent, submit the following for review. Do not start work until these submittals are returned with written acknowledgement that the submittals have been received and accepted by the City or its authorized agent.
  - a. Product Data: Submit manufacturer's product information for each component used, including NIOSH and MSHA Certifications for each component in an assembly and/or for entire assembly.
  - b. System Diagram: If necessary, when a supplied air respiratory system is required by the work, submit drawing showing assembly of components into a complete supplied air respiratory system. Include diagram showing location of compressor, filter banks, backup air supply tanks, hose line connections in Work Area(s), routing of air lines to Work Area(s) from compressor.
  - c. Operating Instruction: Submit complete operating and maintenance instructions for all components and systems as a whole. Submittal is to be in bound manual form suitable for field use.
  - d. Respiratory Protection Program: Submit Contractor's written respiratory protection program manual as required by OSHA 1926.1101 and the requirements set forth by the LARA.
  - e. Initial Exposure Assessment: Submit level of respiratory protection intended for each operation required by the project. Base this selection on an "Initial Exposure Assessment" as required by OSHA 29 CFR 1926.1101 and the requirements set forth by the LARA. Submit information to support this "Initial Exposure Assessment" on the form included at the end of this Section.
    - i. Submit data from exposure monitoring for the PEL and EL from prior asbestos jobs within 12 months;
    - ii. Submit monitoring and analysis that were performed in compliance with the OSHA asbestos standard in effect;
    - iii. Submit data that was obtained under workplace conditions "closely resembling" those that will exist during the Work;
    - iv. Submit data from past asbestos jobs where the type of asbestos abatement and other work, material, control methods, work practices, and environmental conditions closely resemble those that will exist during the Work;
    - v. Submit exposure data from prior asbestos jobs where the work that was conducted by employees whose training and experience are no more extensive than that of employees performing the current job;
    - vi. Based on the exposure data from the previous asbestos jobs, select respiratory protection for the Work that will, to a high degree of certainty, prevent worker exposures (inside the respirator) that exceed the PEL set forth in this Section of the specifications.
  - f. Resume information: Submit resume and information on training for individual monitoring the operation of supplied air respiratory systems. Submit training certifications where applicable.
  - g. Submit respirator fit test date, test type and passing certificate.

**5. AIR QUALITY FOR SUPPLIED AIR RESPIRATORY SYSTEMS:**

- a. Provide air used for breathing in supplied air respiratory systems that meets or exceeds standards set for C.G.A. type 1 (Gaseous Air) Grade H or CSA Z180.1 whichever presents the more stringent quality standard.

**6. DELIVERY:**

- a. Deliver replacement parts, etc., not otherwise labeled by NIOSH or MSHA to job site in manufacturer's containers.

**C. EQUIPMENT**

**1. AIR PURIFYING RESPIRATORS**

- a. Respirator Bodies: Provide half face or full face type respirators. Equip full face respirators with a nose cup or other anti-fogging device as would be appropriate for use in air temperatures less than 32 degrees Fahrenheit (0 degrees Celsius).
- b. Filter Cartridges: Provide, at a minimum, HEPA type filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with 42 CFR Part 84 and ANSI Z228.2. Also, additional cartridge sections may be added, if required, for solvents, etc., in use. In this case, provide cartridges that have each section of the combination canister labeled with the appropriate color code and NIOSH/MSHA Certification.
- c. Non-permitted respirators. Do not use single use, disposable or quarter face respirators.

**2. SUPPLIED AIR RESPIRATOR SYSTEMS:**

- a. Provide equipment capable of producing air of the quality and volume required by the above reference standards applied to the job site conditions and crew size. Comply with provisions of this specification if more stringent than the governing standard.

- b. Face piece and Hose: Provide full face piece and hose by same manufacturer that has been certified by NIOSH/MSHA as an approved Type "C" respirator assembly operating in pressure demand mode with a positive pressure face piece.
- c. Auxiliary backup system: In atmospheres which contain sufficient oxygen (greater than or equal to 19.5 percent oxygen) provide a pressure-demand full face piece supplied air respirator equipped with an emergency backup HEPA filter.
- d. Escape air supply: In atmospheres which are oxygen deficient (less than 19.5 percent oxygen) provide a pressure-demand full face piece supplied air respirator incorporating an auxiliary self-contained breathing apparatus (SCBA) which automatically maintains an uninterrupted air supply in pressure demand mode with a positive pressure face piece.
- e. Backup air supply: Provide a reservoir of compressed air located outside the Work Area which will automatically maintain a continuous uninterruptible source of air automatically available to each connected face piece and hose assembly in the event of compressor shut-down, contamination of air delivered by compressor, power loss or other failure. Provide sufficient capacity in the back-up air supply to allow a minimum escape time of one-half hour times the number of connections available to the Work Area. Air requirement at each connection is the air requirement of the respirators in use plus the air requirement of an average-sized adult male engaged in moderately strenuous activity.
- f. Warning device: Provide a warning device that will operate independently of the building's power supply. Locate so that alarm is clearly audible above the noise level produced by equipment and work procedures in use, in all parts of the Work Area and at the compressor. Connect alarm to warn of:
  - i. Compressor shut down or other fault requiring use of backup air supply.
  - ii. Carbon Monoxide (CO) levels in excess of 5 PPM/V.
- g. CO Monitor: Continuously monitor and record on a strip chart recorder CO levels. Place monitors in the air line between compressor and back-up air supply and between backup air supply and workers. Connect monitors so that they also sound an alarm as specified under "Warning Devices".
- h. Compressor Shut Down: Interconnect monitors, alarms and compressor so that compressor is automatically shut down and the alarms sound if any of the following occur:
  - i. CO concentrations exceed 5 PPM/v in the air line between the filter bank and backup air supply.
  - ii. Compressor temperature exceeds normal operating range.
- i. Compressor Motor: Provide a compressor driven by an electric motor. Do not use a gas or diesel engine to drive compressor. Insure that electrical supply available at the work site is adequate to energize motor.
- j. Compressor Location: Locate compressor outside of building in location that will not impede access to the building, and that will not cause a nuisance by virtue of noise or fumes to occupied portions of the building.
- k. Air Intake: Locate air intake remotely from any source of automobile exhaust or any exhaust from engines, motors, auxiliary generator or buildings.
- l. After-Cooler: Provide an after-cooler at entry to filter system which is capable of reducing temperatures to outside ambient air temperatures.
- m. SCBA: Configure system to permit the recharging of 2 hour 2260 PSI SCBA cylinders.

#### D. EXECUTION

##### 1. GENERAL:

- a. Respiratory Protection Program: Comply with ANSI Z88.2 "Practices for Respiratory Protection", OSHA 29 CFR 1910.314 and 1926.103, and the requirements set forth by the LARA.
- b. Require that respirators be used in the following circumstances:
  - i. During removal of lead-impacted soil activities.
  - ii. During all Class I asbestos jobs.
  - iii. During all Class II work where the ACM is not removed in a substantially intact state.
  - iv. During all Class II and III work that is not performed using wet methods.
  - v. During all Class II and III asbestos jobs where the employer does not produce a "negative exposure assessment".
  - vi. During all Class III jobs where TSI or surfacing ACM or PACM is being disturbed.
  - vii. During all Class IV work performed within regulated areas where employees performing other work are required to wear respirators.
  - viii. During all work covered by this section where employees are exposed above the OSHA PEL (TWA, or excursion limit).
  - ix. During emergencies where the airborne asbestos fiber concentration is not known, a SCBA must be used.
- c. Require that respiratory protection be used at all times that there is any possibility of disturbance of ACM whether intentional or accidental.

- d. Require that a respirator be worn by anyone in a Work Area at all times, regardless of activity, during a period that starts with any operation which could cause airborne fibers until the area has been cleared for re-occupancy.
- e. Regardless of Airborne Fiber Level, require that the minimum level of respiratory protection used be half-face air-purifying respirators with high efficiency filters.
- f. Do not allow the use of single-use, disposable, or quarter-face respirators for any purpose.

2. FIT TESTING:

- a. Initial Fitting: Provide initial fitting of respiratory protection during a respiratory protection course of training set up and administered by an individual qualified to do fit testing. Fit types and sizes of respirator to be actually worn by each individual. Allow an individual to use only the respirators for which training and fit testing was provided.
- b. On a Weekly Basis, check the fit of each worker's respirator by having irritant smoke blown onto the respirator from a smoke tube.
- c. Upon Each Wearing: Require that each time an air-purifying respirator is put on it be checked for fit with a positive and negative pressure fit test in accordance with the manufacturer's instructions or ANSI Z88.2.

3. TYPE OF RESPIRATORY PROTECTION REQUIRED:

- a. General: After reducing airborne asbestos levels to the lowest feasible level with engineering controls and work practices, provide respiratory protection as necessary to ensure that workers are not exposed to an airborne concentration of asbestos in excess of the Specified Permissible Exposure Limits (SPEL) set forth in this Section.
- b. Level of Respiratory Protection: Determine the proper level of respiratory protection by dividing the expected or actual airborne fiber count in the Work Area by the "protection factors" given below. The level of respiratory protection which supplies an airborne fiber level inside the respirator, at the breathing zone of the wearer, at or below the SPEL set forth in this Section is the minimum level of protection allowed.
- c. Specific Respiratory Protection Requirements: Provide respiratory protection as indicated below as a minimum requirement:
  - i. Half-face Negative Pressure Air-Purifying Respirators: Provide half-face negative pressure air-purifying respirators during installation of Critical or Primary Barriers or other activities where there has been an "Initial Exposure Assessment" that has determined that airborne asbestos fiber levels will not exceed 0.1 fiber per cubic centimeter (0.1 f/cc). Provide a PAPR where a half-face negative pressure air-purifying respirator is allowed to any worker who so requests.
  - ii. Provide PAPR during removal of asbestos-containing TSI or surfacing material where there has been an "Initial Exposure Assessment" that has determined that airborne asbestos fiber levels will not exceed 1.0 f/cc.
  - iii. Type "C" Supplied-air respirators: full face piece pressure demand supplied air respirators are to be used by all workers engaged in the removal of TSI or surfacing materials, or demolition of pipes, structures, or equipment covered or insulated with asbestos, or in the removal or demolition of asbestos insulation or coverings, or any other activity which results in or may result in airborne asbestos fiber levels above 1.0 f/cc.
- d. Provide a full face piece supplied air respirator operated in the pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus for all workers within a regulated area where Class I work is being performed and for which an initial exposure assessment has not been produced. After an initial exposure assessment is made, use the level of respiratory protection required by that assessment and requirements of this specification and the OSHA Asbestos Construction Standard 29 CFR 1926.1101.

4. SPECIFIED PERMISSIBLE EXPOSURE LIMITS:

- a. Ensure that no worker is exposed to an airborne concentration of asbestos in excess of the TWA limit, and Excursion Limit (EL) set forth below.
  - i. TWA limit - Concentration of airborne asbestos fibers to which any worker may be exposed as an eight (8) hour TWA shall not exceed 0.01 f/cc.
  - ii. EL concentration of airborne asbestos fibers to which any worker may be exposed as averaged over a sampling period of thirty minutes shall not exceed 0.1 f/cc.
- b. Fibers: For purposes of this section, fibers are defined as all fibers regardless of composition as counted in the OSHA Reference Method (ORM), or NIOSH 7400 procedure.
  - i. Electron Microscopy: If Electron Microscopy is used to determine airborne fiber levels, only asbestos fibers will be enumerated, but, if necessary, fibers of any size detected by the testing of decontamination will be counted.

5. RESPIRATORY PROTECTION FACTOR:

- a. Respirator Type Protection Factor
  - i. Air purifying: 10
    - Negative pressure respirator
    - High efficiency filter
    - Half face piece
  - ii. Air purifying: 50

	Negative pressure respirator High efficiency filter Full face piece	
iii.	PAPR Positive pressure respirator High efficiency filter Half face piece	50
iv.	Supplied air: Positive pressure respirator Pressure demand or other positive pressure mode Full face piece equipped with an auxiliary HEPA cartridge or positive pressure SCBA for escape	1,000

6. AIR PURIFYING RESPIRATORS:

- a. Negative pressure - half or full face mask: Supply a sufficient quantity of respirator filters approved for asbestos, so that workers can change filters during the work day. Require that respirators be wet-rinsed, and filters discarded, each time a worker leaves the Work Area. Require that new filters be installed each time a worker re-enters the Work Area. Store respirators and filters at the job site in the changing room and protect totally from exposure to asbestos prior to their use.
- b. Powered air purifying - half or full face mask: Supply a sufficient quantity of high efficiency respirator filters approved for asbestos so that workers can change filters at any time that flow through the face piece decreases to the level at which the manufacturer recommends filter replacement. Require that regardless of flow, filter cartridges be replaced after 40 hours of use. Require that HEPA elements in filter cartridges be protected from wetting during showering. Require entire exterior housing of respirator, including blower unit, filter cartridges, hoses, battery pack, face mask, belt, and cords, and be washed each time a worker leaves the Work Area. Caution should be used to avoid shorting battery pack during washing. Provide an extra battery pack for each respirator so that one can be charging while one is in use.

7. SUPPLIED AIR RESPIRATOR:

- a. Air Systems Monitor: Continuously monitor the air system operation including compressor operation, filter system operation, backup air capacity and all warning and monitoring devices at all times that system is in operation. Assign an individual, trained by manufacturer of the equipment in use or by a Certified Industrial Hygienist, in the operation and maintenance of the system to provide this monitoring. Assign no other duties to this individual which will take him away from monitoring the air system.

**DIVISION 03**

**SITE WORK**

## I. CLEARING AND GRUBBING AND TREE REMOVAL

### A. GENERAL

1. Clearing and Grubbing
  - a. Unless specifically indicated on the Sheets located in Appendix I, trees and shrubs are not to be removed unless required by the Work and/or with the express permission of the City or its authorized agent. For the purposes of this section, trees shall be considered as those having a trunk diameter of three inches (3") and greater measured at a height of three feet (3') above the ground.
  - b. Where trees are to be removed, the Contractor shall remove such trees and stumps to a depth of at least one (1) foot below the proposed finish grade. All stumps, logs, branches and debris shall be removed from the site and disposed of by the Contractor. All clearing and grubbing necessary to access the site and complete the Work shall be considered incidental to the Contract
  - c. Clearing and grubbing shall consist of removing all debris, large stones, dead and fallen trees, and sticks objectionable material from within the Work areas, or other areas that may be indicated on the sheets which interferes with the work.
  - d. All vegetation such as weeds, grass, shrubbery, roots, and stumps and debris such as broken concrete and trash shall be removed. Trees, shrubbery, lawns, and other vegetation adjacent to the work that is not to be removed and shall be protected from injury or damage resulting from Contractor's operations.
2. Disposal
  - a. Materials resulting from clearing and grubbing operations and that are not to be salvaged or otherwise used shall be disposed of outside the Work limits at an appropriate site and at the expense of Contractor.

## II. WELL AND SPETIC SYSTEM ABANDONMENT

### A. GENERAL

1. Description
  - a. The Work to be done shall consist of furnishing all labor, materials, and equipment for the complete and satisfactory plugging of a water supply well and crock well located on the site.
  - b. The Work to be done shall consist of furnishing all labor, materials, and equipment for the complete and satisfactory abandonment of two (2) septic systems located on the site.

### B. REGULATORY REQUIREMENTS

1. The Contractor shall comply with *Part 127 of the Michigan Public Health Code, 1978 PA 368, as amended* and local regulatory requirements related to the Work summarized in this Section.

### C. PRODUCTS

1. Plugging materials shall consist of neat cement slurry for the water supply well and bentonite pellets or chips and MDOT Class II Sand and bentonite pellets or chips for the crock well.
  - a. Per State of Michigan Requirements, "*bentonite grouts; special cements; or other admixtures to the grout material to reduce permeability, increase fluidity, control time of set, or alter the slurry composition in any way, shall not be used.*"

### D. EXECUTION

#### 1. GENERAL

- a. The work shall be completed by a licensed water well drilling contractor registered in the State of Michigan who shall comply with all federal, state, and local laws and ordinances relating to performance of the work.
- b. Prior to plugging the water supply well, the Contractor shall make appropriate measurements to verify well depth and diameter in order to calculate the necessary amount of plugging material. The contractor shall remove the concrete block and surrounding housing and all materials from within water well which may hinder its proper abandonment. Materials that may be encountered are as follows: pump, drop-pipe, pump rod, packer, wire, check valve, and other debris or obstructions.
  - i. The Contractor shall cut the water well supply casing one (1) foot below the ground surface.
  - ii. The neat cement slurry shall be placed into the water well by pumping down a tremie pipe of at least one-inch inside diameter which has been placed to the bottom of the well to avoid segregation or dilution of sealing materials. The slurry shall be applied in one continuous operation until the abandoned water well is filled. The tremie pipe shall be submerged in the neat cement slurry at all times during placement. The Contractor shall be responsible for determining the amount of neat cement slurry required to plug the abandoned water well.

- c. Prior to plugging the crock well, the Contractor shall make appropriate measurements to verify well depth and diameter in order to calculate the necessary amount of backfill material. The contractor shall remove all materials from within crock well which may hinder its proper abandonment. Materials that may be encountered are as follows: pump, drop-pipe, pump rod, packer, wire, check valve, and other debris or obstructions.
  - i. The Contractor shall place a layer of bentonite chips or bentonite pellets that is not less than six (6) inches thick at the bottom of the well. The remainder of the well shall be plugged by placing MDOT Class II Sand in layers that are not more than 10 feet thick, with a layer of bentonite chips or bentonite pellets that is not less than six (6) inches thick placed on top of each clean soil backfill layer.
  - ii. The uppermost three (3) to four (4) foot section of stone or other curbing material that supports the well bore shall be removed. Before backfilling the well up to the ground surface, a layer of bentonite chips or bentonite pellets that is not less than 6 inches thick shall be placed.
  - iii. Upon completion of abandonment activates associated with the crock well, the Contractor shall provide a minimum of four (4) inches of approved, clean topsoil over the backfilled area and provide seed and mulch as specified in Section XIV, Site Restoration.
- d. The Contractor shall maintain a complete and accurate record of the plugging operations. The information to be recorded shall include the type of plugging material used, volume of material used, and method of placing plugging material into the well. Such written record shall be available for inspection on site at the request of the City or its authorized agent. The completed well plugging report shall be submitted to City or its authorized agent, the local health department, and to the MDEQ within 60 days of completion of the well abandonment operation.
- e. Disconnect existing septic system from the vacant residential building and subsequent removal and disposal of the septic system, including two (2) tanks. Closure of the septic system will include removal of system liquids and sludge and proper off-site disposal by a licensed liquid waste hauler. Upon removal of contents, the two (2) tanks will be crushed-in-place, backfilled, and restored to match surrounding conditions.

### **III. RESILIENT FLOORING REMOVAL – AGGRESSIVE ASBESTOS ABATEMENT**

#### **A. GENERAL:**

##### **1. REGULATORY ABATEMENT METHOD OPTION**

- a. All friable asbestos containing ACM and non-friable ACM that can become friable during demolition must be removed prior to demolition. Category I ACM includes asbestos-containing packing; gaskets, resilient floor coverings and mastics, and asphalt roofing products. Category I ACM such as the floor tile and mastic materials will require removal prior to demolition. The resilient flooring or mastic demolition debris must be disposed as a regulated asbestos material.

#### **B. SUBMITTALS:**

1. Before Start of Work: At the request of the City and/or its authorized agent, submit the following for review. Do not start work until these submittals are returned with written acknowledgement that the submittals have been received and accepted by the City or it authorized agent.
  - a. Wetting Materials: Submit product data, use instructions and recommendations from manufacturer of wetting material (surfactant and/or removal encapsulant) intended for use. Include data substantiating that material complies with requirements.
  - b. NESHAP Compliance Documentation: Submit manufacturer's documentation for removal encapsulants proposed for use that, to the extent required by this specification, the material, if used in accordance with manufacturer's instructions, will comply with the wetting requirements of NESHAP Asbestos Regulations (40 CFR 61, Subpart M).
  - c. NESHAP Compliance Documentation: Submit written approval from the EPA NESHAP Coordinator, in compliance with applicable requirements of NESHAP Asbestos Regulations (40 CFR 61, Subpart M), for the use of shot/bead blast equipment for adhesive removal.
  - d. Plan of Action for Dry Ice Use: Submit a plan of action as required by this section for protection of workers from carbon dioxide and cold hazards associated with use of dry ice. Testing and protective measures proposed are to be certified by a Certified Industrial Hygienist (CIH).
  - e. Adhesive Removal Solvent: Submit product data, use instructions and recommendations from manufacturer of adhesive removal solvent intended for use. Include data substantiating that material complies with requirements.
2. Before Start of Work: At the request of the City and/or its authorized agent, submit the following for review. Do not start work until these submittals are returned with written acknowledgement that the submittals have been received and accepted by the City or it authorized agent.
  - a. Material Safety Data Sheet: Submit Material Safety Data Sheets, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for all materials proposed for use on the work including:
    - i. Surfactants.
    - ii. Adhesive Removal Solvents.

## B. PRODUCTS

### 1. MATERIALS

- a. Wetting Materials: For wetting prior to disturbance of asbestos-containing materials, the Contractor will submit to the City or its authorized agent the intended wetting agent. Do not begin work until this submittal is returned with written acknowledgement that the submittals have been received and accepted by the City or its authorized agent. Choices include:
  - i. Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the ACM and retardation of fiber release during disturbance of the material equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50 percent polyoxyethylene ester and 50 percent polyoxyethylene ether mixed with five (5) gallons of water.
  - ii. Removal Encapsulant: Provide a penetrating-type encapsulant designed specifically for removal of ACM. Use a material which results in wetting of the asbestos-containing material and retardation of fiber release during disturbance of the material equal to or greater than that provided by water amended with a surfactant consisting of one ounce of 50 percent polyoxyethylene ester and 50 percent polyoxyethylene ether mixed with five (5) gallons of water.
  - iii. Dishwashing detergent that contains anionic, nonionic, and amphoteric surfactants.
- b. Tile Adhesive Removal Solvent: Provide a slow-drying solvent intended to remove tile adhesive. Provide material that is not flammable, does not create combustible vapors and has no significant inhalation hazard. For Tile Adhesive Removal Solvent, the Contractor will submit to the City or its authorized agent the intended solvent proposed. Do not begin work until this submittal is returned with written acknowledgement that the submittals have been received and accepted by the City or its authorized agent.
- c. Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 6-mil thick, clear, frosted, or black as indicated.
- d. Duct Tape: Provide duct tape in 2-inch or 3-inch widths as indicated, with an adhesive formulated for use on sheet polyethylene.
- e. Spray Cement: Provide, in aerosol cans, spray adhesive which is formulated for use on sheet polyethylene. Provide materials that do not contain methylene chloride.
- f. Disposal Bags: Provide 6-mil thick leak-tight polyethylene bags labeled as required by Section X, Disposal of Regulated Asbestos-Containing Material.
- g. Fiberboard Drums: Provide heavy duty leak-tight fiberboard drums with tight sealing locking metal tops.
- h. Steel Drums: Provide leak-tight steel drums with tight-sealing locking metal tops.
- i. Injection Molded Plastic Drums: Provide leak-tight injection-molded plastic drums with tight sealing locking tops.
- j. Paper board Boxes: Provide heavy-duty corrugated paperboard boxes coated with plastic or wax to retard deterioration from moisture. Provide in sizes that will easily fit in disposal bags.
- k. Polyethylene Boxes: Provide heavy-duty polyethylene boxes. Provide leak-tight boxes or boxes in sizes that will easily fit in disposal bags.

### 2. PRIMARY RESILIENT FLOORING REMOVAL EQUIPMENT

- a. Manual Spades:
  - i. Hand operated scraper/chisels with long handles and replaceable blades for removal of resilient flooring.
- b. Powered Spades:
  - i. Long-handled scraper/chisels used in a full-standing position that have replaceable blades and are pneumatically or electrically-powered to move in a reciprocating (in and out) motion.
  - ii. Provide powered spades that are equipped with pneumatic vents and piston seals that prevent compressed air or blow by from sweeping floor.

### 3. THERMAL EQUIPMENT WITH AUTOMATIC CONTROL:

- a. Thermal Equipment with Automatic Control:
  - i. Equipment utilizing controlled infrared radiant heat to make the resilient floor tiles and adhesive soft and pliable for removal.

### 4. HIGH PRESSURE WATER JET:

- a. High Pressure Water Jet
  - i. Tools using very high pressure water jets to hydraulically lift tiles.

5. OTHER TECHNOLOGIES NOT APPLICABLE TO THE WORK:

- a. Rotary Cutters:
  - i. Machine with rotating discs facing flat against the floor with spring-loaded cutters that follow the profile of the floor and removes soft resilient materials by cutting them into thin strips and scraping them from the floor.
- b. Rotary Grinders/Surfacers:
  - i. Machine with discs facing flat against floor that removes hard materials with grinding action.
- c. Surfacers/Planers/Scarifiers:
  - i. Machine with a series of small cutters freewheeling on axles mounted on a drum so that the cutters contact the floor surface with a flailing action.
- d. Stripper Machines:
  - i. These are walking units with blades at the front, driven by electric motors, and move either in a reciprocating (in and out) or an oscillating orbital motion.

C. EXECUTION

1. SEQUENCE

- a. Comply with the following sections during all phases of this work:
  - i. Division 02, Section II Worker Protection
  - ii. Division 02, Section III Respiratory Protection

2. RESILIENT FLOOR COVERINGS:

- a. Preparation: Prior to beginning the removal of any resilient floor covering complete the following:
  - i. Remove appliances and furniture from the work area.
- b. Seal Floor Penetrations: Before using wet methods to remove resilient flooring, seal openings, and penetrations in the floor to prevent water leakage.
  - i. Remove surface mounted junction boxes (doghouses) from raceway system.
  - ii. Remove hatch and trench covers that are covered with resilient flooring. Seal opening with plywood. Seal edges of plywood to floor with urethane foam caulk. Remove resilient flooring from cover in a later operation during wet removal of flooring. Seal openings with a wooden or plywood plug. Seal with urethane foam caulk.
  - iii. Remove flooring material in the immediate area of floor penetrations with a hand spade or scraper.
  - iv. Remove adhesive by hand scraping as necessary to permit installation of seals.
  - v. Remove any adhesive residue from slab where cover on openings and penetrations must seal to floor to accomplish a water tight assembly. Remove this residue by abrasion using dampened, clean, sharp, cutting sand and a hand-held rubbing stone as necessary. Use minimum wetting required to permit removal. Use caution to prevent water leakage into opening or penetration.
  - vi. Cover sealed plywood hatch assemblies with 6-mil sheet plastic. Seal plastic to floor with spray glue or urethane caulk.
  - vii. Cover sealed openings with sheet plastic. Seal plastic to floor with spray glue or urethane caulk.
- c. Remove Resilient Flooring: Use the five-step process described in the following sections:

1. STEP ONE - REMOVAL OF RESILIENT TILE FLOOR COVERING:

- a. Remove resilient tile floor covering using the following procedure:
  - i. Remove binding strips or other restrictive molding from doorways, walls, etc. clean and dispose of as non-asbestos waste. Dispose of any materials that have glue or floor mastic on them as asbestos-containing waste.
  - ii. Wet Floor:
    - a) Wet floor with amended water, removal encapsulant, or detergent solution, so that entire surface is wet. Do not allow to puddle or run off to other areas. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Cover with sheet polyethylene to allow humidity to release tile from floor. Allow time for humidity and water or removal encapsulant to loosen tiles prior to removal.
    - b) Keep floor continuously wet throughout removal operation.
    - c) Remove tiles using a manual or powered spade, or stripping machine. Continuously mist floor in area where machine is working with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet. Keep floor where tile has been removed continuously wet until after completion of heavy adhesive residue removal.
- b. Debris and Waste
  - i. Dispose of Category I non-friable waste in accordance with State and Local Regulations.

2. STEP TWO - REMOVAL OF ADHERED SHEET RESILIENT FLOORING:

- a. Use the following procedure to remove adhered resilient sheet flooring completely:
  - i. Wet Floor
    - a) Wet floor with amended water, removal encapsulant, or detergent solution so that entire surface is wet. Do not allow to puddle or run off to other areas. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions.
    - b) Keep floor continuously wet throughout removal operation.
    - c) Remove wear layer using a manual or powered spade. Continuously mist floor in area where machine is working with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet. Keep floor where wear layer has been removed continuously wet until after completion of heavy residue removal.
    - d) Remove wear layer using a manual or powered spade. Add additional dry foam powder and wet as necessary to maintain 1-inch of foam during the entire removal process. Maintain layer of foam on floor where the wear layer has been removed until after completion of heavy adhesive residue removal.
  - ii. Debris and Waste:
    - a) Dispose of all friable materials in accordance with Section X, Disposal of Regulated Asbestos-Containing Material. Dispose of Category I non-friable waste in accordance with State and Local Regulations.
- b. Manual Removal:
  - i. Make a series of parallel cuts, with a knife, 4-inches to 8-inches apart parallel to the wall, keeping cut lines wet.
  - ii. Start at the end of the room farthest from the entrance door. This will help avoid tracking of debris from the removal operation. Pry up the corner of the first strip, separating the backing layer. As the strip is being removed, spray a constant mist of the detergent solution into the delamination nip point to minimize any airborne dust particles. When done properly, any felt remaining on the floor and on the back of the strip will be thoroughly wet. Peel the strip either by pulling upward at an angle that permits the best separation or by rolling around a core.
    - a) **PRECAUTION:** Resilient flooring becomes slippery when wet with, amended water, removal encapsulant, or a detergent solution. Use caution to contain the solution in the immediate work area. Stand on a new sheet of plywood or non-slip surface while working on wet surfaces.
- c. Debris and Waste:
  - i. Dispose of all friable materials in accordance with Section XI, Disposal of Regulated Asbestos-Containing Material. Dispose of Category I non-friable waste in accordance with State and Local Regulations.
- d. Occasionally parts of the foam inner-layer will remain stuck to the backing. This condition can sometimes be eliminated by pulling the strips loose from the opposite end. Peel the foam inner-layer from the floor while spraying the detergent solution into the delamination nip point.
- e. Some resilient flooring is not readily strippable by hand. When these conditions are encountered, a sharp stiff blade scraper may be used to assist cleavage of the wear layer from felt. If this procedure is used the distance between cuts should be narrowed to 3-inches to 5-inches wide.
- f. Regardless of whether stripping of the wear surface is accomplished by hand peeling alone or with the assistance of a stiff blade scraper, amended water, removal encapsulant or detergent solution must be sprayed into the delamination nip point to minimize any airborne dust particles.
- g. Keep floor where wear layer has been removed continuously wet until after completion of heavy residue removal.

3. STEP THREE - REMOVAL OF HEAVY RESIDUE OF ADHESIVE:

1. Remove the heavy residue of adhesive left after removal of resilient tile flooring using the following procedure.
  - a. Dampen Floor
    - i. Dampen floor by misting with amended water, removal encapsulant, or detergent solution so that entire surface is wet. Do not allow to puddle or run off to other areas. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions.
    - ii. Keep floor continuously damp throughout removal operation.
  - b. Adhesive Removal:
    - i. Begin removal at a point farthest from the entrance to the work area. Work of this step may proceed concurrently with work of removal of tile.
  - c. Disposal and Debris
    - i. Dispose of all friable materials in accordance with Section X, Disposal of Regulated Asbestos-Containing Material. Dispose of Category I non-friable waste in accordance with State and Local Regulations.
  - d. Wet vacuum standing water with HEPA wet/dry vacuum.

- i. Mop floor with amended water, removal encapsulant, or liquid detergent solution to remove all debris and residue.
    - ii. Continue the above steps until the adhesive is sufficiently reduced in thickness that it can be effectively removed with shot/bead blast equipment.
    - iii. Wet vacuum standing water with HEPA wet/dry vacuum.
    - iv. Mop floor with amended water, removal encapsulant, or liquid detergent solution to remove all debris and residue.
    - v. Continue the above steps until the adhesive is sufficiently reduced in thickness that it can be effectively removed with shot/bead blast equipment.
4. STEP FOUR - Removal of Residual Backing Material:
  1. Remove any residual felt or rubber backing remaining adhered to the floor after removal of the wear layer of adhered vinyl sheet flooring by using the following procedure:
    - a. Wetting:
      - i. Thoroughly wet residual backing with amended water, removal encapsulant, or detergent solution. Wait a few minutes to allow solution to soak into felt.
    - b. Backing Removal:
      - i. Concrete floors: Use a stiff-bladed scraper or a floor scraper with a replaceable blade to remove the wet backing.
      - ii. Re-wet the backing if the solution has not completely penetrated, if drying occurs or if dry felt is exposed during scraping. Pick up the scrapings as they are removed from the floor and place in a disposal bag or impermeable container.
      - iii. Wood floor: Wet residual felt as above but do not excessively soak or flood wood floors with detergent solution. Excessive water can damage wood floors to the extent that new underlayment could be required. If this occurs, the Contractor will provide new underlayment and shall be considered incidental to this Contract. Use manual scraping only.
5. STEP FIVE - REMOVAL OF ADHESIVE RESIDUE:
  - a. After removal of resilient flooring and any heavy residue of adhesive, mastic, or backing material, in the previous step, remove all residue of adhesive from the floor using the following procedure:
    - i. Allow floor to dry after completion of the wet removal procedures used in previous steps.
    - ii. Begin removal at a point farthest from the entrance to the work area.
    - iii. Remove adhesive residue.
6. ADHESIVE SOLVENT:
  - a. Adhesive: Remove adhesive residue by using adhesive removal solvents. Use solvents in accordance with manufacturers' instructions. Saturate adhesive with removal solvent and allow adhesive to soften. Remove by scraping, wet sanding, or wet scrub with floor cleaning machine with abrasive pad. Provide worker protection as required by the MSDS for any material used.
    - i. Mop floor with removal solvent as required by manufacturer's directions as required to completely remove all residue of adhesive.
    - ii. Clean Floor after completion of removal of ACM by wet mopping with amended water. Mop three times allowing a drying time between each mopping.
    - iii. Encapsulate cleaned floor with one coat of an encapsulant.
    - iv. Dispose of all rags, plastic sheet, etc. in accordance with requirements of Section 02093 Disposal of Regulated Asbestos-Containing Material.
  - b. Decontaminate Equipment: After completion of all work, decontaminate all equipment and machinery used for work of this section.

## IV. DISPOSAL OF REGULATED ASBESTOS-CONTAINING MATERIAL

### A. GENERAL:

#### 1. DESCRIPTION OF THE WORK:

- a. This section describes the disposal of RACM. Disposal includes packaging of RACM. Disposal is to be accomplished by land filling.

### B. SUBMITTALS:

1. Before Start of Work: At the request of the City and its authorized agent, submit the following for review. Do not start work until these submittals are returned with written acknowledgement that the submittals have been received and accepted by the City or its authorized agent.
  - a. Copy of state or local license for waste hauler.
  - b. Name and address of landfill where RACM are to be transported and properly disposed. Include contact person and telephone number.
  - c. Chain of Custody form and form of waste manifest proposed for use.
  - d. Sample of disposal bag and any added labels to be used.
2. On a weekly basis submit copies of all manifests and disposal site receipts to the City and/or its authorized agent.
3. Waste Shipment Record: Maintain a waste shipment record as required by the NESHAP regulation which indicates the waste generator, transporter, and disposal site, and which describes the nature, size, type of container, and form of asbestos waste. Submit to the City and/or its authorized agent within 35 days of departure from buildings.

### C. PRODUCTS:

#### 1. MATERIALS

- a. Disposal Bags: Provide 6-mil thick leak-tight polyethylene bags labeled with three labels with text as follows:
  - i. First Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:  
**DANGER  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST  
CANCER AND LUNG DISEASE HAZARD  
BREATHING AIRBORNE FIBERS IS  
HAZARDOUS TO YOUR HEALTH**
  - ii. Second Label: Provide in accordance with U. S. Department of Transportation regulation on hazardous waste marking (49 CFR parts 171 and 172, Hazardous Substances).  
**RQ-ASBESTOS WASTE  
CLASS 9  
NA2212-PG III**
  - iii. Third Label: Provide the name of the waste generator (Owner's name), the location from which the waste was generated and the names and addresses of the Contractor and transporter. This label must be durable, able to repel dirt and moisture (e.g., permanent marker). Label must be placed directly on disposal bag(s) in a legible format. Peel and stick type labels are expressly prohibited.

### D. EXECUTION

#### 3. SEQUENCE

- a. Comply with the following sections during all phases of this work:
  - iii. Division 02, Section II Worker Protection
  - iv. Division 02, Section III Respiratory Protection

#### 2. GENERAL:

- a. All waste is to be hauled by a waste hauler with all required licenses from all State and local authorities with jurisdiction.
- b. Liquid waste: Mix all liquid asbestos-containing waste or asbestos contaminated waste with a bladeable material so that it forms a bladeable (non-liquid) form, and have the concurrence of the landfill operator prior to disposal.
- c. Load all adequately wetted RACM in disposal bags or leak-tight containers. All materials are to be contained in one of the following
  - i. Two 6-mil disposal bags;
  - ii. Two 6-mil disposal bags and a fiberboard drum; or
  - iii. Sealed steel drum with no bag.

- d. Protect interior of truck or dumpster with Critical and Primary Barriers.
- e. Carefully load containerized waste in fully enclosed dumpsters, trucks or other appropriate vehicles for transport. Exercise care before and during transport, to insure that no unauthorized persons have access to the material.
- f. Warning Signs: During loading and unloading mark dumpsters, receptacles and vehicles with a sign complying with requirements of the EPA NESHAP regulation (40 CFR Part 61), in a manner and location that a person can read the following legend:

**DANGER  
ASBESTOS DUST HAZARD  
CANCER AND LUNG DISEASE HAZARD  
AUTHORIZED PERSONNEL ONLY**

- g. Do not store containerized materials outside of the Work Area. Take containers from the Work Area directly to a sealed truck or dumpster.
- h. Do not transport disposal bagged materials on open trucks. Label drums with same warning labels as bags. Uncontaminated drums may be reused. Treat drums that have been contaminated as RACM and dispose of in accordance with this specification.
- i. Advise the landfill operator or processor, at least ten days in advance of transport, of the quantity of material to be delivered.
- j. At disposal site unload containerized waste:
- h. At a disposal site, sealed plastic bags may be carefully unloaded from the truck. If bags are broken or damaged, return to work site for rebagging.
- i. At a processing site truck and loading dock are arranged as a controlled work area and containerized waste is transferred to storage area by site personnel. All bags including broken ones will be transferred.
- i. Retain receipts from landfill or processor for materials disposed of.
- j. At completion of hauling and disposal of each load submit copy of waste manifest, chain of custody form, and landfill receipt to the City and/or its authorized agent.

## V. HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT

### A. GENERAL:

#### 1. DESCRIPTION OF THE WORK:

- a. This section describes the removal, segregation, packaging, labeling, transport, and disposal of non-asbestos containing waste materials that are known to exist in the abatement area and the subsequent shipment of properly packaged and labeled waste materials to an approved disposal site.
  - i. The following hazardous and other regulated wastes have been identified at the site, including but not limited to:
    - a) PCB-containing light ballasts, fluorescent light bulbs, mercury-containing thermostats, oil/grease, fuel oil, and other unknown wastes.
  - ii. For additional information regarding the hazardous and other regulated wastes identified at the site, refer to Appendix II.

#### 2. CODES AND REGULATIONS

- a. General Applicability of Codes and Regulations: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes and regulations have the same force and effect and are made a part of the contract documents by reference as if copied directly into the Contract Documents, or as if published copies are bound herewith. Such codes include, but are not limited to, those listed in Section III, Regulatory Requirements.
- b. The Contractor shall hold the City and its authorized agent harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of the Contractor the Contractor's employees, or Subcontractor's.

### B. SUBMITTALS:

- 1. Before Start of Work the Contractor shall submit documents as required in this Contract.

### C. OFF-SITE TRANSPORTATION AND DISPOSAL

#### 1. Work Included:

- a. Obtain approval from disposal facilities.
- b. Ensure that all vehicles entering and leaving the site comply with all safety requirements and licensing requirements of the local, State, and Federal regulations.
- c. Prepare vehicles to prevent spillage or contamination.
- d. Inspect vehicles before leaving the site. The City or its authorized agent may inspect any or all vehicles leaving the site at the City's or its authorized agent's discretion.

- e. Transport equipment for and from the site.
2. Record Documentation.
    - a. The Contractor shall prepare and maintain accurate manifests or bills of lading for each load of waste materials being transported and disposed of. The Contractor is responsible for obtaining a signature from the City or its authorized agent on behalf of the City, on manifests or bills of lading for transportation and disposal purposes.
    - b. The Contractor shall provide to the City or its authorized agent written documentation and records verifying receipt and the quantity received of each load at the disposal facility and verification of proper disposal. Copies of the actual weigh tickets and/or receipts, as applicable, must be provided to the City or its authorized agent.
  3. Testing
    - a. All material shall be sampled and analyzed in accordance with the disposal requirements as directed by the City or its authorized agent. The testing parameters shall be determined based on the potential for presence of the respective contaminants.
- D. PRODUCTS:
1. EQUIPMENT
    - a. The Contractor shall provide equipment, personnel, and facilities necessary to safely remove, handle, and load materials for transport.
  2. MATERIALS
    - a. Disposal Bags: Provide 6-mil thick leak-tight polyethylene bags.
    - b. DOT Hazardous Waste Disposal Drums: Provide DOT 17-H Open -Top Drums (55 gallon) in accordance with DOT regulations title 49 CFR Parts 173, 178, and 179.
    - c. DOT Hazardous Waste Labels: in accordance with DOT regulations Title 49 CFR parts 173, 178, and 179.
- E. EXECUTION
1. GENERAL
    - a. Do not mix waste streams. Where feasible, separate each type of hazardous waste from other types of hazardous wastes, each type of other regulated waste from other types of regulated waste, and asbestos waste from construction waste.
    - b. Segregate, package, label, transport and dispose of hazardous and other regulated waste in accordance with DOT, EPA, State and Local regulations.
  2. WASTE DESIGNATION
    - a. Where not otherwise designated by the City or its authorized agent as known waste or necessary for disposal, characterize all suspect waste products by conducting representative sampling or TCLP testing. All sampling will be coordinated with the City or its authorized agent.
    - b. Representative sampling of waste products will be in accordance with EPA protocols.
    - c. TCLP test analysis will be performed in accordance with EPA Method 1311.
  3. HAZARDOUS AND UNIVERSAL WASTE PACKAGING AND LABELING:
    - a. Package each segregated hazardous and other regulated waste type in accordance with DOT, EPA, State and Local regulations.
    - b. Maintain all containers in a continuously sealed condition after they have been sealed.
      - i. Do not reopen sealed containers.
      - ii. Do not place additional waste in sealed containers.
  4. TEMPORARY STORAGE:
    - a. Partially filled containers of hazardous and other regulated waste may be stored at the work site for intermittent packaging provided that:
      - i. Each container is properly labeled when it is first placed in service;
      - ii. Each container remains closed at all times except when compatible waste types are added;
      - iii. When moved from site to site, each container remains within the geographic boundaries of the facility without moving or crossing public access highways.
- F. RECYCLING AND RECOVERY: Turn over waste which contains materials for which recovery and/or recycling is possible to an approved recycling center. Materials subject to recycling include, but are not limited to:
1. Fluorescent light tubes.
  2. Thermostats with mercury switches.
  3. Lead acid batteries

4. Chlorofluorocarbons

G. BACK CHARGES:

1. Where the Contractor fails to fulfill packaging, handling, transport or disposal requirements as outlined herein, the City and its authorized agent will charge back to the Contractor all costs associated with insuring that hazardous wastes are segregated, packaged, transported and disposed of in accordance with all applicable Federal and State regulations.
2. Environmental pollution of the City's property or other environments resulting from the Contractor's hazardous waste management activities will be promptly remediated under the City's or its authorized agent's direction, to the City's sole satisfaction, and at the Contractor's sole expense.
3. The Contractor agrees to either reimburse the City, or reduce the Contract amount by change order to cover all costs associated with waste re-packaging, waste re-segregation, or pollution remediation efforts.

H. REMOVAL OF HAZARDOUS AND OTHER REGULATED WASTES:

1. Immediately seal containers of hazardous waste as each the container is filled. Remove containers of hazardous waste from the work site within seventy-two (72) hours of being filled.
2. Continuously maintain custody of all waste material generated at the work site including security, short-term storage, transportation and disposition until custody is transferred to an approved disposal site or recycling center. Document continuous chain-of custody.
3. The waste shall be transported by certified waste hauler in approved containers.
4. Do not remove, or cause to be removed, hazardous or other regulated waste from the City's property without a legally executed Uniform Hazardous Waste manifest.
5. All transport vehicles shall be cleaned before filling waste material.
6. All haul vehicles are to be inspected for soil adhesion to wheels and under carriage. These soils shall be removed and properly handled by the Contractor before leaving the site. The decontamination procedures shall be carried out at the decontamination zone, if necessary. The City or its authorized agent has the option to approve vehicles before leaving the site. All rinse waters are to be collected for temporary storage prior to disposal. In coordination with the City or its authorized agent, the Contractor will sample collected rinse waters to ensure proper disposal. The Contractor shall be responsible for the disposal and any associated testing and shall be considered incidental to this Contract.
7. Transport vehicles that are leaking or spilling material shall not be allowed to leave the site.
8. All transport vehicles shall be in strict conformance with all applicable Federal, State, and local laws.
9. The Contractor shall keep accurate records for the following information: Type and quantity of materials, including liquids, removed from the site and analytical testing results. At completion of hauling and disposal of each load submit copy of waste manifest, chain of custody form, and landfill receipt to City or its authorized agent.
10. The Contractor shall provide the City or its authorized agent with copies of the above records, all permits, manifests, waste hauling permits, weigh tickets, and necessary affidavits regarding the waste material, including liquid disposal.
11. Prior to transportation, all of the established pre-transportation requirements shall be met.

I. DISPOSAL

1. All disposals shall conform to Federal, State, and local government regulations. For contaminated wastes, the Contractor shall utilize a State of Michigan approved manifest system so that the waste can be tracked from generation to ultimate disposal. The manifest shall comply with all the provisions of the transportation and disposal regulations. All transporters must sign the appropriate portions of the manifest and must comply with all of the provisions established in the applicable regulations. The Contractor is responsible for obtaining a signature from the City or its authorized agent on behalf of the City, on manifests or bills of lading for transportation and disposal purposes.
2. Contaminated material shall be disposed of at an approved licensed disposal facility.
3. Arrangements for disposal shall be performed by the Contractor.

**VI. SECTION 02060 BUILDING DEMOLITION**

A. GENERAL:

1. WORK INCLUDED

- a. The vacant residential building and outbuilding structure shall be demolished and removed, including all lower-level concrete floor slabs, subgrade footings, foundations, basements, sub-basements, concrete pads, vaults, pits, and sumps, as specified in this section.
- b. Obtain all permits necessary to perform demolition and related activities.
- c. Disconnect, cap, and/or plug all utilities encountered during the Work.
- d. Remove and recycle or dispose of debris generated by the demolition of the aforementioned building structures, debris within pits, vaults, and or/sumps; miscellaneous site debris; universal and other regulated waste (See Section 02095 Hazardous and Universal Waste Management); and specified and non-specified hazardous materials excluding RACM (See Sections 02080 Removal of Asbestos Containing Materials and 02091 Removal of Asbestos Contaminated Materials)

- i. Recycling or disposal of steel from the building structures is incidental to this Contract. All metals should be recycled when economically feasible. All metals contained in uncontaminated concrete and/or brick shall be recycled when economically feasible.
- e. Perform personnel air monitoring and dust control during the entire period of the demolition and removal operation. The cost for air monitoring and dust control is incidental to this Contract.

## B. SUBMITTALS

See Division 01, Section V Submittals for required submittals.

## C. GENERAL REQUIREMENTS

1. Rubbish and debris shall be removed from the Work areas daily, unless otherwise directed, to avoid accumulation at the Site. Materials that cannot be removed daily shall be stored in areas specified by the City or its authorized agent. In the interest of safety, the Work shall be performed with regard to the protection of personnel and property.
2. Dust Control and Air Monitoring
  - a. The Contractor shall take all necessary means and procedures to control dust and avoid airborne dust from impacting the surrounding properties as a result of demolition operations.
3. Protection of Personnel
  - a. During demolition operations, the Contractor shall continuously evaluate the conditions of the items being demolished and take immediate action to protect all personnel working in and around the Work areas. No area, section, or component of walls, or other structural elements, excluding foundations, will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while personnel perform other Work in the immediate Work areas. The Contractor shall ensure that no elements determined to be unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this Contract.
  - b. All Work shall be performed by workers appropriately trained in accordance with OSHA and MIOSHA requirements.
  - c. Appropriate personal protection equipment (PPE) shall be used by workers during all site work. Specific requirements for PPE shall be provided in the site-specific HASP.
4. Protection of Existing Work
  - a. Before beginning any demolition and removal Work, the Contractor shall carefully inspect the Work areas and examine the drawings and specifications to determine the extent of Work. The Contractor shall take all necessary precautions to ensure against damage to existing features (including, sidewalks, roadways, and trees) that are to remain in place and any damage to such features shall be repaired or replaced, as approved by the City or its authorized agent, solely at the Contractor's expense. The Contractor shall construct and maintain shoring, bracing, and supports as required. The Contractor shall ensure that structural elements are not overloaded and be responsible for increasing structural support or adding new support, as may be required as a result of any removal or demolition Work performed under any part of this Contract. All additional bracing, shoring, or lateral support shall be considered incidental to this Contract.
5. Ownership
  - a. The Contractor shall have claim to any items or components of items to be demolished as well as debris. The Contractor shall be responsible for the removal and disposal of materials and debris in a fashion that complies with all Federal, State, and local laws and regulations. Ownership of items and materials to be removed by the Contractor does not transfer to the Contractor until such items and materials are physically removed from the site.
1. Sequencing and Scheduling
  - a. The Contractor shall perform Work in such a way so that any RACM, universal and other regulated wastes, or contaminated materials and liquids discovered onsite, or as specified by the City or its authorized agent, shall be removed or cleaned-up prior to demolition or debris removal to protect the safety and health of all personnel. Liquids accumulated in the building shall be removed, transported, and properly disposed prior to demolition of the buildings and, if necessary, shall be managed as required to complete the Work
2. Burning and Explosives
  - a. Burning waste and debris materials and the use of explosives at this site are prohibited.

## D. PERMITS AND LICENSING

1. This subsection provides general description of permits required for demolition. The permits described below are not necessarily all of the permits required for completion of the Work. The Contractor shall be responsible for obtaining all required permits, providing all required notices, coordinating all necessary inspections, and all permit fees.
  - a. Permits
    - i. The Contractor shall obtain a Building Demolition Permit from Washtenaw County for the buildings prior to commencing with demolition activities.

- ii. The Contractor shall obtain a Notification Form from Scio Township for the buildings prior to commencing with demolition activities.
- iii. The Contractor shall be responsible for all appropriate notification, filling, fees, and obtaining the Intent to Renovate/Demolish Notification from the MDEQ-AQD a minimum of 10 working days prior to demolition. The notification shall describe the demolition tasks to be conducted and the quantities of ACM proposed for abatement.
- iv. The Contractor shall obtain a right-of-way permit from the appropriate agency when work in a right-of-way is necessary.
- v. The Contractor shall be responsible for applying for and obtaining all necessary SESC permits from the appropriate governing agency.
- vi. All other permits and notices as required by law.

## E. PRODUCTS

Not Used

## F. EXECUTION

### 1. General

Furnish all equipment, materials, labor and services necessary to complete all building demolition required in connection with the existing buildings, in order to permit the installation of new Work. The goal of the City is to generate the least amount of waste or debris possible. Any material determined to be inert per R299.4115 may be pulverized for reuse as suitable backfill and placed onsite per the approval of the City and its authorized agent. Inert material and recyclable material that is generated may be salvaged or recycled by the Contractor.

- a. Locations: Notations are made in various places on the Drawings to call attention to building demolition which is required; however, these Drawings are not intended to show each and every item to be removed.
- b. Permits: The Contractor must secure from the appropriate agencies all required permits necessary for proper execution of the Work before starting Work on the site. All fees for securing the permits must be paid by the Contractor, including all inspection costs which may be legally assessed by the Bureau of Construction Codes in accordance with the authority granted under the Public Act 1980 PA 371, as amended.
- c. Preparation: Protect all existing Work that is to remain and restore in an approved manner any such Work that becomes damaged.
  - i. Waste and non-inert demolition debris resulting from the Work must be removed from the site by the Contractor for offsite disposal. Recyclable materials may be removed and recycled by the Contractor for offsite reuse or disposal.
- d. Coordination: Demolition work, in connection with any new unit of Work, must not be commenced until all new materials required for completion of that new item of Work are at hand.

### 2. DUST CONTROL

- a. The Contractor shall employ all necessary engineering controls and misting operations to prevent emission of dust and migration of airborne materials offsite from impacting surrounding properties.
- b. The removal operation shall employ adequate engineering controls and misting operations, so as to prevent visible emissions of dust and migration of airborne materials offsite. Use of water will not be permitted when it will result in, or create hazardous or objectionable conditions such as ice, flooding, pollution, or electrical shock.
- c. If the Contractor wants to temporarily stockpile any demolition debris or materials that may generate dust at the site, the stockpiles shall be staged on asphalt or concrete and covered with 10-mil plastic sheeting per approval of the City and/or its authorized agent.

## C. DEMOLITION AND REMOVAL

### 1. Building Structures

- a. The Contractor shall demolish and remove the buildings in its entirety. Debris identified by the City and/or its authorized agent as characteristically hazardous waste shall be disposed at an approved hazardous waste disposal facility.

## 2. Utilities

### a. Electrical Disconnection

- i. The Contractor shall coordinate with the City and its authorized agent and local utility provider for the shut-off of utilities associated with the buildings and structures to be demolished.
- ii. The Contractor shall verify in writing that onsite electrical wiring entering the building structures to be demolished have been physically disconnected prior to proceeding with demolition operations.

### b. Utility Pole Removal

- i. The Contractor shall remove, transport and dispose of a Class 8 or greater utility pole and associated appurtenances.

## 3. Hazardous Materials

- a. The removal and disposal of hazardous contaminated materials discovered as a result of the demolition activities shall be handled as specified in Division 03, Section V Hazardous and Universal Waste Management. Any other potentially hazardous or contaminated materials not specified which are discovered during demolition and removal operations shall immediately be brought to the attention of the City and its authorized agent.
- b. Materials designated by the City or its authorized agent as characteristically hazardous waste shall be segregated from other debris throughout the demolition and disposal process. The segregated hazardous waste shall be disposed at an approved hazardous waste disposal facility.
- c. The Contractor shall be responsible for preventing mixing of impacted debris and inert materials from regulated listed or characteristic hazardous waste materials. The Contractor is also responsible for preventing non-hazardous materials from coming in contact with materials identified as being hazardous, so as to prevent increasing the volume of hazardous materials.
- d. If necessary, the characteristically hazardous debris may be temporarily stockpiled on plastic (10-mil minimum thickness). The plastic liner shall have a minimum 2-foot wide debris-free perimeter around the stockpiles. The stockpile shall also be completely covered with a double layer of the plastic, taped continuously along all joints and anchored securely to protect against wind and precipitation. Stockpiles shall be sloped to minimize creeping or sloughing of the debris and the Contractor shall clearly mark the hazardous and non-hazardous stockpiles. Diking or other measures shall be used to prevent surface runoff from flowing onto the liners on which the debris is placed. Where several sheets of plastic are necessary to cover or lie on the stockpiles, the edges shall overlap a minimum of two-feet. Once the stockpile has been covered, the debris-free perimeter of the liner shall be secured with concrete block or equivalent. The Contractor, under the direction of the Professional, shall inspect the liners and covers daily for defect and damage. Should any tears, defect, or other damage be found, the Contractor shall replace or repair the damaged plastic sheets and shall be considered incidental to this Contract.

## 4. Asbestos Containing Materials

- a. The removal and disposal of RACM, as specified in Division 03, Section III Resilient Flooring Removal-Aggressive Asbestos Abatement; and Division 03, Section IV Disposal of Regulated Asbestos-Containing Material, shall be completed prior to beginning demolition Work. Any ACM discovered during demolition activities shall be abated before continuing with demolition operations.

## D. RECYCLING

1. All metals should be recycled when economically feasible. Steel separated from demolition rubble may be recycled and becomes the property of the Contractor. Any material stockpiled for recycling shall be removed from the site prior to the Contract end date and/or site restoration.

## E. CONSTRUCTION WATER RUNOFF CONTROL

### 1. General

- a. The Contractor shall provide the means, methods, and procedures necessary to collect, remove, and dispose of construction water produced as a result of demolition effort and storm water during the Work duration. In addition, the Contractor shall furnish, operate, and maintain equipment for the control, collection, and disposal of the construction water. Damages arising from the Contractor's inability to properly control construction and storm water shall be repaired by the Contractor and shall be considered incidental to this Contract. Temporary storage areas for potentially contaminated water shall be approved by the City and its authorized agent. Excavations and cavities shall be protected from water infiltration from the Contractor's demolition operations and storm water using a method approved by the City and/or its authorized agent. The Contractor shall be responsible to obtain all appropriate Federal, State, and local permits and provide manifests for the activities performed.

### 2. Runoff Control

- a. The Contractor shall conduct the Work in such a manner as to limit the flow of runoff (demolition water or precipitation). If necessary, the Contractor shall construct dikes or other barriers to divert runoff to areas approved by the City and/or its authorized agent.

## F. DEBRIS DISPOSAL

1. The building structures are required to be demolished and removed and all miscellaneous debris, waste, and unsatisfactory materials resulting from this Work shall be removed from the site, unless otherwise specified in the Contract or by the City and its authorized agent and upon removal shall become the property of the Contractor. All disposals shall conform to Federal, State, and local requirements. All removed materials shall be documented by manifests and disposal facility acceptance tickets, with copies given to the City and/or its authorized agent within two (2) business days after removal from the site.

#### G. TRAFFIC CONTROL

1. The Contractor shall employ all necessary engineering controls to meet requirements of all ROW permits. Traffic control shall be coordinated with the appropriate authorities. The costs of traffic control shall be considered incidental to this Contract.

#### H. QUALITY CONTROL

1. The Contractor shall establish and maintain a quality control system for contract requirements and maintain records of its quality control for all operations performed, including, but not limited to, the following:
  - a. Electrical disconnection verification.
  - b. Permit compliance and final inspection/acceptance.
  - c. ACM abatement verification.
  - d. Dust control and air monitoring.
  - e. Noise and vibration control.
  - f. Well abandonment.
  - g. Demolition, removal, and cleanup.
  - h. Disposal, recycling, backfill.
  - i. Water management.
  - j. Observance of safety regulations.
  - k. Observance of environmental regulation.

### VII. REMOVAL AND DISPOSAL OF HAZARDOUS LEAD-IMPACTED SOILS AND DEBRIS

#### A. GENERAL

1. Description
  - a. Hazardous lead-impacted soils and debris shall be excavated and disposed of to the extent possible within budgetary constraints. Based on depth of impact, approximately one (1) feet below ground surface (bgs), the City estimates approximately 100 cubic yards of hazardous lead-impacted soils and debris shall be excavated, directly loaded, transported offsite, and properly disposed of at an approved, properly licensed Type I landfill facility, in accordance with all local, State, and Federal solid waste laws and regulations consistent with Part 115 and conditions specified herein. At the discretion of the City or its authorized agent, additional soils or debris may be removed.
  - b. Hazardous lead-impacted soil or debris may be temporarily stockpiled on plastic (10 mil minimum thickness). The plastic liner should have a minimum two-foot wide debris-free perimeter around the stockpiles. The stockpile shall also be completely covered with a double layer of the plastic taped continuously along all joints and anchored securely to protect against wind and precipitation. Stockpiles shall be sloped to minimize creeping or sloughing of the lead-impacted soil or debris and the Contractor shall clearly mark stockpiles as "Lead Containing". Diking or other measures shall be used to prevent surface runoff from flowing onto the liners on which the debris is placed. Where several sheets of plastic are necessary to cover or lay on the stockpiles, the edges shall overlap a minimum of two feet. Once the stockpile has been covered, the debris-free perimeter of the liner shall be secured with concrete blocks or equivalent. The Contractor, under the direction of the City or its authorized agent, shall inspect the liners and covers for defects and damage daily. Should any tears, defects, or other damages be found, the Contractor shall replace or repair the damaged plastic sheets and shall be considered incidental to the contract.
  - c. For bidding purposes, assume that groundwater will not be encountered during excavation activities.
  - d. *Sheet 2, Existing Conditions* and *Sheet 3, Demolition Plan* (Appendix I) depict the general area containing hazardous lead-impacted soils, existing and proposed limits of excavation, surficial debris removal and approximate silt fence and limits of Work.

**B. REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR Part 1910	Occupational Safety and Health Standards
29 CFR Part 1926	Safety and Health Regulations for Construction
40 CFR Part 260	Hazardous Waste Management
40 CFR Part 261	Identification and Listing of Hazardous Waste
40 CFR Part 262	Standards Applicable to Generators of Hazardous Waste
40 CFR Part 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR Part 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR Part 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
49 CFR Part 171	Department of Transportation Regulations to Stipulate Requirements for Containers and Procedures for Shipment of Hazardous Waste
49 CFR Part 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
49 CFR Part 173	Shippers General Requirements for Shipment and Packaging
49 CFR Part 177	Carriage by Public Highway
49 CFR Part 180	Rules for Continuing Qualifications and Maintenance of Packaging

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 30	(1990) Flammable and Combustible Liquids Code
NFPA 70 B	(1990) Recommended Practice for Electrical Equipment Maintenance
NFPA 325M	Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids

STATE OF MICHIGAN

PA 451, PART 201	Environmental Remediation
PA 451, PART 111	Hazardous Waste Management Act
PA 451, PART 115	Solid Waste Management Act
PA 451, PART 121	Liquid Industrial Waste Act

**C. SUBMITTALS**

1. Submittals shall be submitted in accordance with Contract.

**D. SAMPLING AND ANALYTICAL TESTING**

1. Confirmation soil samples will be collected and submitted for laboratory analysis by the City or its authorized agent.
  - a. Prior to backfilling, the Contractor shall assist the City or its authorized agent with the collection of confirmation samples from the excavation, as directed by the City or its authorized agent. Confirmation sampling and analysis for the excavated area are the City's or its authorized agent's responsibility. The Contractor shall be responsible for assisting in collection and scheduling time needed for the confirmation sampling. Sampling locations, number and specific procedures shall be as determined by the City or its authorized agent. The Contractor's cost associated with assisting the City or its authorized agent with obtaining confirmation samples shall be considered incidental to the Contract.
2. If necessary, waste characterization sampling, as required, will be paid for by the Contractor and shall be considered incidental to the Contract.
  - a. Analytical testing and sampling required for waste characterization shall be performed by a laboratory that routinely provides analytical services acceptable to the MDEQ. Sample collection, shipping, and laboratory analytical costs associated with waste characterization, shall be paid for by the Contractor and shall be considered incidental to the Contract. Confirmation sampling shall be performed and paid for by the City or its authorized agent. It is the Contractor's responsibility to submit sample results for waste characterization, in a timely fashion, to the City or its authorized agent.

**E. REGULATORY REQUIREMENTS**

1. The Contractor shall comply with all applicable Federal, State, and local regulatory requirements related to the Work summarized in this Section.

## F. PRODUCTS

### 1. SUITABLE FILL AND BACKFILL MATERIALS REQUIREMENTS

- a. Provide a minimum of four (4) inches of approved, clean topsoil over backfilled and graded areas, as directed by the City or its authorized agent.
- b. If requested and approved by the City or its authorized agent, the Contractor shall provide documentation of the off-site source material soil type and non-impact (virgin material or analytical test results) prior to bringing the material on-site. Such documentation may consist of certification from the borrow pit, laboratory analytical reports, or other documentation deemed acceptable by the City or its authorized agent.
- c. Costs for providing off-site sources of approved backfill material shall be the responsibility of the Contractor and considered incidental to the Contract.

### 2. UNSUITABLE MATERIALS

- a. Unsuitable materials may include:
  - i. Contaminated soils, including but not limited to, soil that is visually or olfactory impacted. The City or its authorized agent shall monitor the excavation filling with a photoionization detector (PID) or flame ionization detector (FID).
  - ii. Soils which cannot be compacted sufficiently to achieve the density specified for the intended use.
  - iii. Materials that contain hazardous or designated waste materials including petroleum hydrocarbons, pesticides, heavy metals, and any material which may be classified as hazardous or toxic according to applicable regulations.

## G. EXECUTION

### 1. General

- a. Preparation
  - i. The Contractor shall be responsible for obtaining and providing all required permits. The Contractor shall provide approved containers, vehicles, equipment, labor, labels, manifests and other documents necessary for accomplishment of the Work.
- b. Safety Guidelines
  - i. If encountered, all Work associated with hazardous materials shall be performed at appropriate Personal Protection Level as defined by OSHA as specified in 29CFR 1910.120 and other applicable safety requirements.
  - ii. Personnel conducting the Work shall be trained and made thoroughly familiar with the safety precautions, procedures, and equipment required for controlling the potential hazards associated with this Work. Obligations are set forth in Appendix II.
- c. Control of Work
  - i. The Contractor shall perform the Work in accordance with the requirements of the Sheets and Specifications and shall take direction only from the City or its authorized agent for this contract. Any other party that proposes to give direction to the Contractor shall be immediately referred to the City or its authorized agent.

### 2. AIR MONITORING

- a. As part of the overall HASP, the Contractor shall monitor air quality at the site, as required, to protect workers and neighbors. The Contractor shall establish action levels for organic vapors, dusts, etc. to protect the health and safety of the employees and other on-site personnel.

### 3. LOADING, HAULING AND DISPOSAL

- a. Disposal of hazardous lead-impacted soils and debris shall be excavated and disposed of to the extent possible within budgetary constraints. Based on depth of impact, approximately one (1) feet bgs, the City estimates approximately 100 cubic yards of hazardous lead-impacted soils and debris shall be excavated, transported offsite, and disposed of properly at an approved, properly licensed Type landfill facility, in accordance with all local, State, and Federal solid waste laws and regulations consistent with Part 115 and conditions specified herein.
- b. Waste characterization sampling, as required, will be paid for by the Contractor and shall be considered incidental to the Contract.
- c. All haul vehicles are to be inspected for soil or waste adhesion to wheels, under carriage, sides, top, gate, etc. If necessary, these soils shall be removed and properly handled by the Contractor before leaving the Work area. The decontamination procedures shall be carried out at the decontamination zone. All the vehicles may be inspected before leaving the site by the City or its authorized agent. All rinse waters, if necessary, are to be collected for temporary storage prior to disposal. The Contractor shall be responsible for associated testing and disposal for waste characterization and shall be considered incidental to the Contract.
- d. Transport vehicles that are leaking or spilling materials shall not be allowed to leave the site.
- e. All transport vehicles shall be in strict conformance with all the applicable Federal, State, and local laws.

- f. The Contractor shall keep accurate records for the following information: Type and quantity of materials, including liquids, removed from the site and analytical testing results. The City or its authorized agent approval is required before any liquid or solid material leaves the site.
- g. The Contractor shall provide the City or its authorized agent with copies of the above records, all permits required, manifests, waste hauling permits, and necessary affidavit regarding the waste materials, including liquid disposal.
- h. All transport vehicles shall be clean of off-site contamination before filling with waste debris and/or soil.
- i. The waste debris and/or soil shall be transported by a certified waste hauler in accordance with all Federal, State, and local laws.
- j. The City will sign manifests or its authorized agent on behalf of the City.

4. SPILLS

- a. The Contractor is responsible for cleaning up all leaks and spills that occur from containers and other items on-site or off-site. Immediate containment actions shall be taken, as necessary, to minimize the effect of any spill or leak. The Contractor shall notify the City or its authorized agent and appropriate governmental authorities of the incident. Cleanup shall be in accordance with applicable Federal, State and local laws and regulations and costs shall be considered incidental to the Contract.

**VIII. BACKFILLING**

A. GENERAL:

1. WORK INCLUDED

- a. Contractor shall furnish and place backfill materials as specified by the City and/or its authorized agent.
- b. The Contractor shall backfill the excavation to a depth sufficient to allow site restoration activities to be completed. See Division 03, Section IX – Site Restoration.

B. RELATED SECTIONS

- 1. Division 02, Section I – Maintenance of Existing Conditions
- 2. Division 03, Section VII – Removal and Disposal of hazardous Lead-Impacted Soils and Debris
- 3. Division 03, Section IX – Site Restoration

C. SUBMITTALS

The following shall be submitted in accordance with Division 1, Section V – Submittals:

- 1. Work Plan
- 2. Disposal Documents
- 3. Manifests

D. PROJECT COORDINATION

The Contractor shall carefully coordinate the work in this Section with all other work. The work shall be compliant with OSHA regulations and other applicable safety requirements.

E. PRODUCTS

- 1. Suitable fill and backfill materials requirements
  - a. Backfill material shall consist of clean MDOT class 2 or class 3 sand.
  - b. The backfill material shall be obtained from an off-site source, as needed to complete the backfilling of the excavated area to grade.

F. UNSUITABLE MATERIALS

- 1. Unsuitable materials include the materials listed below:
  - a. Soils from offsite sources that are visually or olfactory impacted.
  - b. Materials that contain hazardous or designated waste materials including petroleum hydrocarbons, pesticides, heavy metals, and any material which may be classified as hazardous or toxic according to applicable regulations.
  - c. Topsoil, except as allowed below.

G. EXECUTION

- 1. Preparation
  - a. The Contractor shall take extreme care during the site activities to prevent cross contamination of hazardous or contaminated soil with non-hazardous/non-contaminated soil.
  - b. Personnel working inside and around the excavation area shall be trained and thoroughly familiar with the safety precautions and equipment required for controlling potential hazards associated with this work.

2. Quality Control
  - a. The Contractor shall establish and maintain a quality control system for all operations performed under this Section to assure compliance with contract requirements and maintain records of its quality control for all operations performed, including, but not limited to, the following:
    - i. Observance of safety regulations.
    - ii. Quantity and quality of materials, labor, equipment and Work performed.
    - iii. Protection, maintenance, and repair.

**IX. SITE RESTORATION**

A. GENERAL:

1. Work Included
  - a. Grade and restore the site to match surrounding grade.
  - b. Sheet 3 and Sheet 4, Details (Appendix I) depict the approximate limits of grading and seeding and surface restoration.

B. DESCRIPTION

1. Grade Work areas of the site to match surrounding grade with clean, approved topsoil, as directed by the City or its authorized agent.
2. Any surficial debris unearthed during grading activities shall be removed, transported, recycled and/or properly disposed.
3. The Contractor shall seed graded and backfilled areas with native grasses and forbs with specifications depicted on Sheet 4 and in E. Products, below.
4. The Contractor shall maintain all seeded areas until final inspection. Maintenance includes repairing any areas damaged following seeding operations or until permanent erosion control is established and shall be considered incidental to the Contract. Such damaged areas shall be repaired to re-establish the condition of the grade of the area prior to seeding and then be re-seeded.
5. For bidding purposes, the City estimates that approximately 20,000 square feet will need to be graded and seeded.

C. SUBMITTALS

1. Work Plan
  - a. The Contractor shall prepare and implement a Work Plan as described in this Contract.

D. PROJECT COORDINATION

1. The Contractor shall comply with all applicable Federal, State, and local regulatory requirements related to the Work summarized in this Contract.
2. All Work associated with shall be performed at appropriate Personal Protection Level as defined by OSHA as specified in 29CFR 1910.120 and other applicable safety requirements.
3. Personnel conducting the Work shall be trained and made thoroughly familiar with the safety precautions, procedures, and equipment required for controlling the potential hazards associated with this Work. Obligations are set forth in in Appendix II.
4. The Contractor shall verify on-site utility line locations that are in close proximity to the Work areas. Utility lines may include but are not limited to the following: telephone, cable, electric, water, sewer, and gas lines.

E. PRODUCTS

1. Topsoil shall at a minimum consist of the following:

TEXTURE CLASS PERCENT	TOTAL WEIGHT AVERAGE PERCENT
Sand (0.05-2.0 mm dia. range) 25	75 50
Silt (0.002-0.05mm dia. range) 15	40 27.5
Clay (< 0.002 mm dia. range) 15 -	30 22.5

2. Seeding specifications are as follows:

Common Name	Scientific Name	Percent Mix	Pounds Per Acre	Total Pounds Per Acre
<b>Temporary Grasses</b>		<b>50%</b>	<b>15</b>	<b>30</b>
Seed Oats	<i>Avena sativa</i>			
Annual Rye	<i>Lolium multiflorum</i>			
<b>Native Grasses</b>		<b>30%</b>	<b>9</b>	
Big Bluestem Grass	<i>Andropogon gerardii</i>			
Canada Wild Rye	<i>Elymus canadensis</i>			
Bottlebrush Grass	<i>Hystrix patula</i>			
Indian Grass	<i>Sorghastrum nutans</i>			
<b>Native Wildflowers</b>		<b>20%</b>	<b>6</b>	
Thimbleweed	<i>Anemone cylindrica</i>			
Butterfly Weed	<i>Asclepias tuberosa</i>			
New England Aster	<i>Aster novae-angliae</i>			
Coumbine	<i>Aquilegia canadensis</i>			
White False Indigo	<i>Baptisia leucantha</i>			
Tall Coreopsis	<i>Coreopsis tripteris</i>			
Showy Tick Trefoil	<i>Desmodium canadense</i>			
Flowering Spurge	<i>Euphorbi corollata</i>			
Woodland Sunflower	<i>Helianthus strumosus</i>			
Wild Lupin	<i>Lupinus perennis</i>			
Bergamot(Bee Balm)	<i>Monarda fistulose</i>			
Evening Primrose	<i>Oenothera biennis</i>			
Yellow Coneflower	<i>Ratibita pinnata</i>			
Black-eyed Susan	<i>Rudbeckia hirta</i>			
Tall Goldenrod	<i>Solidago altissima</i>			
Lance-leaved Goldenrod	<i>Solidago grminifolia</i>			
Stiff Goldenrod	<i>Solidago rigida</i>			
Tall Meadowrue	<i>Thalictrum polygamum</i>			
Culver's Root	<i>Veronicastrum virginicum</i>			
Ironweed	<i>Vernonia fasciculata</i>			
Golden Alexanders	<i>Zizia aurea</i>			

3. If requested and approved by the City or its authorized agent, the Contractor shall provide documentation of the seeding specifications and off-site source material soil type and non-impact (virgin material or analytical test results) prior to bringing the materials on-site. Such documentation may consist of certification from the borrow pit, laboratory analytical reports, or other documentation deemed acceptable by the City or its authorized agent.

F. EXECUTION

3. Quality Control

- b. The Contractor shall establish and maintain a quality control system for all operations performed under this Section to assure compliance with contract requirements and maintain records of its quality control for all operations performed, including, but not limited to, the following:
  - i. Observance of safety regulations.
  - ii. Quantity and quality of materials, labor, equipment and Work performed.
  - iii. Protection, maintenance, and repair.

**APPENDIX I  
SHEETS**

**APPENDIX II  
REPORTS**

**APPENDIX III**  
**FORMS**

## **STANDARD SPECIFICATIONS**

All work under this contract shall be performed in accordance with the Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Advertisement. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

A copy of the Public Services Department Standard Specifications may be purchased from the Engineering Division, (Fourth Floor, City Hall, Ann Arbor, Michigan), for \$35.00 per copy. In addition, a copy of these Standard Specifications is available for public viewing at the Engineering Division office, for review Monday through Friday between the hours of 8:30 a.m. and 4:00 p.m.

Copies of the Standard Specifications can also be downloaded from the web link:

[http://www.a2gov.org/government/publicservices/project\\_management/privatedev/pages/standardspecificationsbook.aspx](http://www.a2gov.org/government/publicservices/project_management/privatedev/pages/standardspecificationsbook.aspx).

**APPENDIX I**  
**SHEETS**

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NOTES

- 1) THIS PROJECT INCLUDES ASBESTOS-CONTAINING MATERIAL ABATEMENT, UNIVERSAL WASTE REMOVAL AND DISPOSAL/RECYCLING, DEMOLITION OF A VACANT RESIDENTIAL BUILDING AND ASSOCIATED OUT BUILDING, WELLS AND SEPTIC TANKS ABANDONMENT, LIMITED LEAD-IMPACTED SOIL AND SURFICIAL DEBRIS REMOVAL, AND SITE RESTORATION OF THE WORK AREAS.
- 2) ABANDONMENT OF A WATER WELL AND CROCK WELL TO BE COMPLETED BY A LICENSED WATER WELL DRILLING CONTRACTOR REGISTERED IN THE STATE OF MICHIGAN.
- 3) DEMOLITION SHALL BE COMPLETED BY A LICENSED RESIDENTIAL BUILDER.
- 4) ABATEMENT WORKERS ARE TO BE ACCREDITED AS ABATEMENT WORKERS AS REQUIRED BY THE EPA MODEL ACCREDITATION PLAN (MAP) ASBESTOS ABATEMENT WORKER TRAINING (40 CFR PART 763, SUBPART E, APPENDIX C) AND THE REQUIREMENTS SET FORTH BY THE LARA.
- 5) ALL WORKERS ARE REQUIRED TO BE CERTIFIED 40 HOUR HAZWOPER TRAINED (29 CFR 1910.120 (E)).
- 6) CONTRACTOR IS TO SUBMIT TO THE CITY OR ITS AUTHORIZED AGENT COPIES OF ALL STATE AND LOCAL LICENSES AND PERMITS NECESSARY TO CARRY OUT THE WORK OF THIS CONTRACT.
- 7) THE CONTRACTOR SHALL COORDINATE WITH THE CITY AND ITS AUTHORIZED AGENT AND LOCAL UTILITY PROVIDER FOR THE SHUT-OFF OF UTILITIES ASSOCIATED WITH THE BUILDINGS AND STRUCTURES TO BE DEMOLISHED.
- 8) THE CONTRACTOR SHALL VERIFY IN WRITING THAT ONSITE ELECTRICAL WIRING, GAS AND/OR WATER ENTERING THE BUILDING STRUCTURES TO BE DEMOLISHED HAVE BEEN PHYSICALLY DISCONNECTED PRIOR TO PROCEEDING WITH DEMOLITION OPERATIONS.
- 9) THE CONTRACTOR SHALL REMOVE, TRANSPORT AND DISPOSE OF A CLASS 8 OR GREATER UTILITY POLE.
- 10) ALL DIMENSIONS ARE IN FEET. BEARINGS BASED ON LEGAL DESCRIPTION AS PROVIDED IN TITLE WORK.
- 11) TOTAL PROPERTY ACREAGE = 23.797 ACRES
- 12) FLOOD ZONE: PARCEL DOES NOT LIE IN AN AREA WITH A DESIGNATED FLOOD ZONE CLASSIFICATION PER FEMA MAP 26163C0195E PER MDEQ.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVALS

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
OWNER

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
REGISTERED PROFESSIONAL ENGINEER

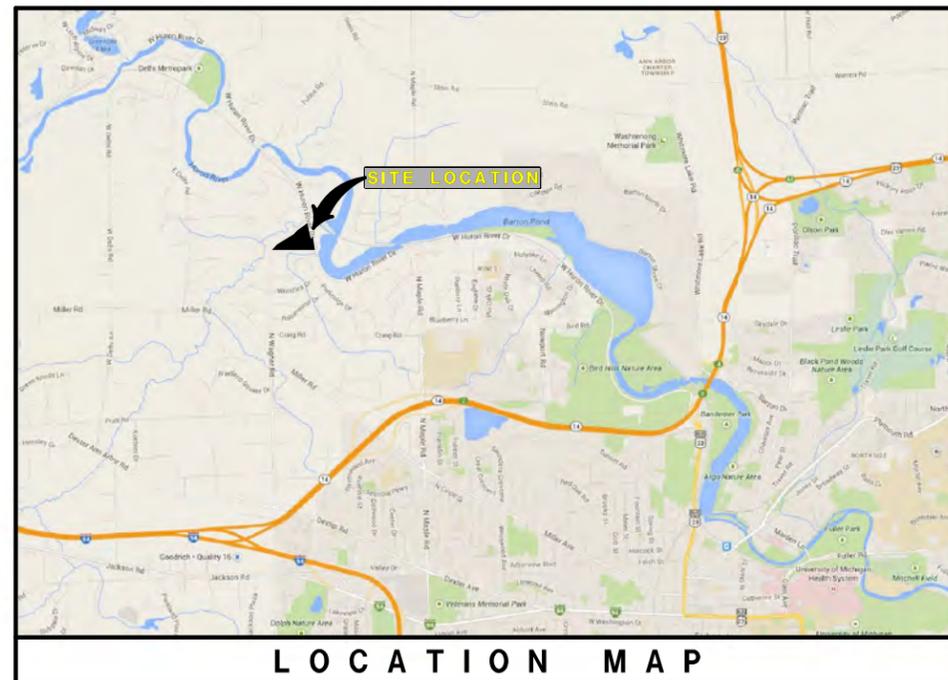
PLANS PREPARED BY:



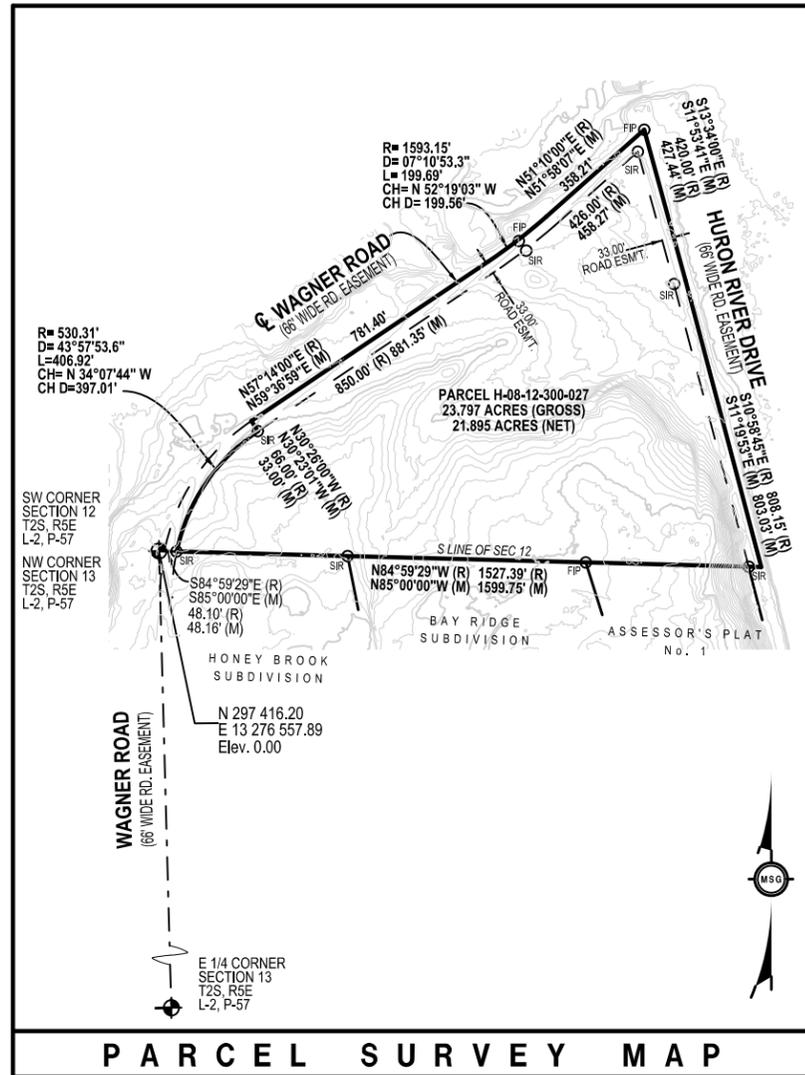
ENGINEER'S SEAL

# LIMITED SOIL & SURFICIAL DEBRIS REMOVAL DEMOLITION & RESTORATION PROJECT

AT THE  
**BROKAW PROPERTY**  
3013 WEST HURON RIVER DRIVE  
TOWNSHIP OF SCIO  
WASHTENAW COUNTY, MICHIGAN



NOT TO SCALE



PARCEL SURVEY MAP

NOT TO SCALE

CERTIFICATE OF SURVEY

PART OF THE SW 1/4 OF SECTION 12,  
T. 2 S., R. 5 E., SCIO TOWNSHIP, WASHTENAW COUNTY, MICHIGAN

CERTIFIED TO:  
CITY OF ANN ARBOR

A PARCEL OF LAND SITUATED IN THE TOWNSHIP OF SCIO, WASHTENAW COUNTY, MICHIGAN, AND IS DESCRIBED AS FOLLOWS:  
PART OF THE SOUTHWEST 1/4, SECTION 12, T2S, R5E, SCIO TOWNSHIP, WASHTENAW COUNTY, MICHIGAN.

SAID PARCEL IS MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 12; THENCE ALONG THE SOUTH LINE OF SAID SECTION 12 NORTH 84°59'29" EAST (R) SOUTH 85°00'00"E (M), 48.10 FEET (R) 48.16' (M) TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF WAGNER ROAD (66 FEET WIDE) AND THE POINT OF BEGINNING; THENCE 407.00 FEET (R) 406.49 FEET (M) ALONG A NON-TANGENTIAL CURVE TO THE RIGHT, HAVING A RADIUS OF 530.31 FEET (R & M), DELTA 43°57'54" (M), CHORD BEARING NORTH 37°34'51" EAST (R) NORTH 34°07'44" EAST (M), 397.08 FEET (R) 397.01 FEET (M); THENCE NORTH 59°38'38" EAST, 774.99 FEET (RECORDED AS NORTH 57°14'00" EAST 850.00 FEET TO PI); THENCE 199.69 FEET ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 1593.15 FEET, DELTA 07°10'53", CHORD BEARING NORTH 52°19'03" EAST 199.56 FEET; THENCE NORTH 51°58'07" EAST, 358.21 FEET (RECORDED AS NORTH 51°10'00" EAST FROM PI) TO THE INTERSECTION OF WAGNER ROAD AND HURON RIVER DRIVE (66 FEET WIDE); THENCE ALONG THE CENTERLINE OF HURON RIVER DRIVE SOUTH 13°34'00" EAST (R) SOUTH 11°53'41" EAST (M), 420.00 FEET (R) 427.44 FEET (M) AND SOUTH 10°58'45" EAST (R) SOUTH 11°21'34" EAST, 808.15 FEET (R) 803.03 FEET (M); THENCE LEAVING SAID DRIVE CENTERLINE NORTH 84°59'29" WEST (R), 1527.39 FEET (R) 1599.75 FEET (M) TO THE POINT OF BEGINNING. CONTAINING 23.797 ACRES (GROSS) 21.895 ACRES (NET), SUBJECT TO THE RIGHTS OF THE PUBLIC OVER THE SOUTHERLY 33 FEET THEREOF IN WAGNER ROAD AND THE WESTERLY 33 FEET THEREOF IN HURON RIVER DRIVE, AND RESTRICTIONS OR EASEMENTS OF RECORD.

KENNETH S. WILKERSON, P.S.  
LICENSED PROFESSIONAL SURVEYOR  
MICHIGAN LICENSE NO. 21584  
DATE: 09/18/14

DESCRIPTION  
DEMOLITION BID

NO. DATE BY  
1 10/17/2014 CJB

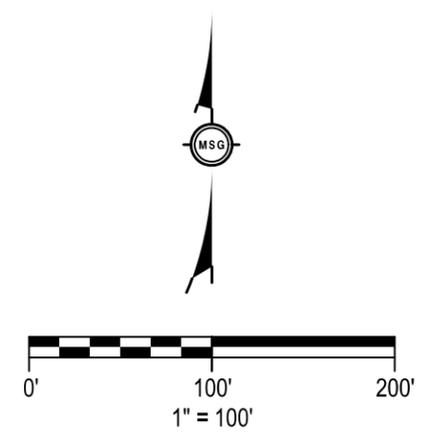
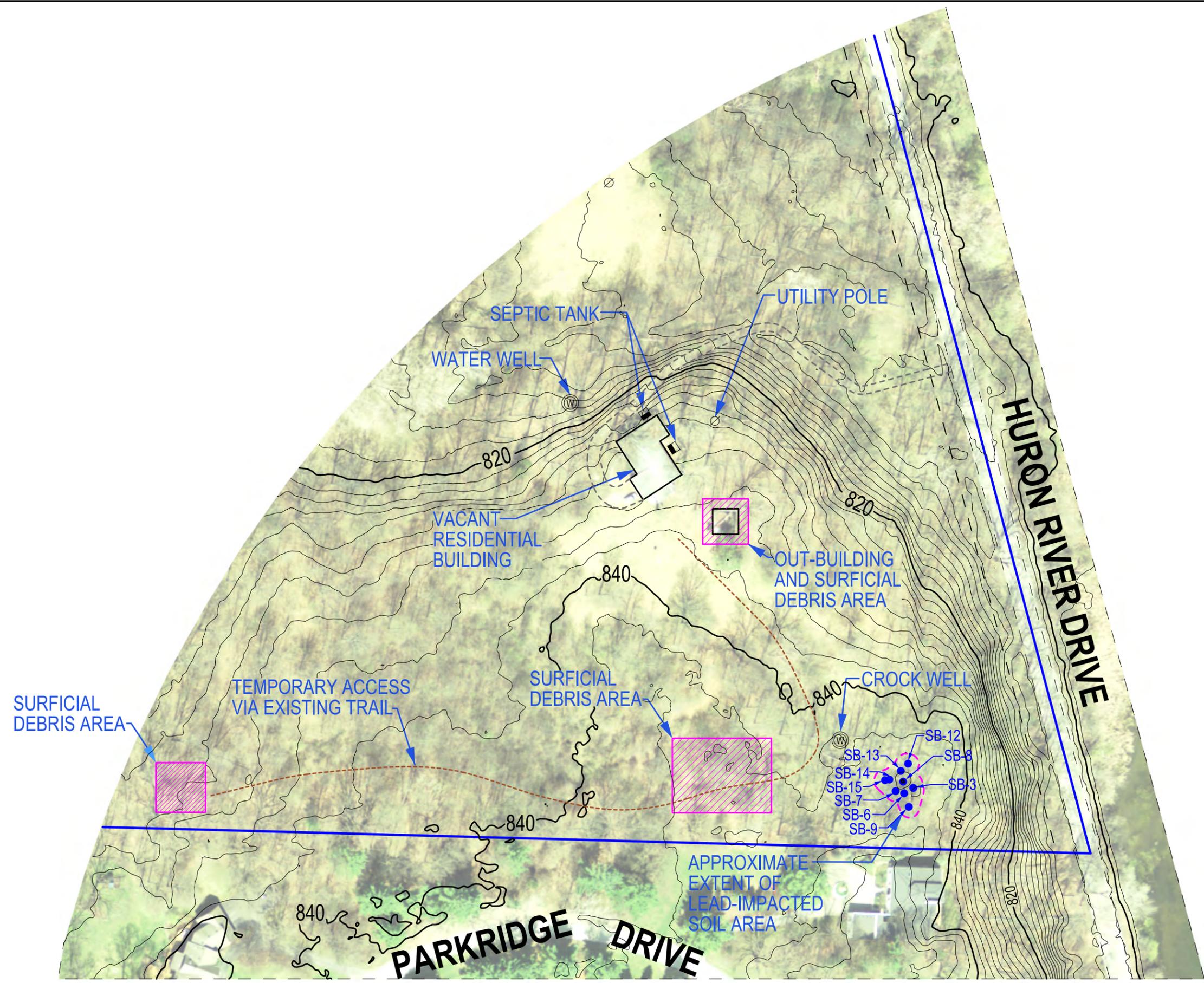


PROPERTY  
BROKAW PROPERTY

PROJECT  
LIMITED SOIL & SURFICIAL DEBRIS REMOVAL, DEMOLITION & RESTORATION

TITLE SHEET

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CONTOUR INTERVAL = 2 FEET

- LEGEND**
-  UTILITY POLE
  -  SUMP TANK
  -  WELL
  -  SURFICIAL DEBRIS AREA
  -  APPROXIMATE EXTENT OF LEAD-IMPACTED SOIL AREA
  -  PROPERTY LINE
  -  GRAVEL DRIVE
  -  EXISTING CONTOURS
  -  EXISTING TRAIL
  -  SOIL BORINGS THAT EXCEED PART 201 GENERIC RESIDENTIAL DIRECT CONTACT CRITERIA FOR LEAD.

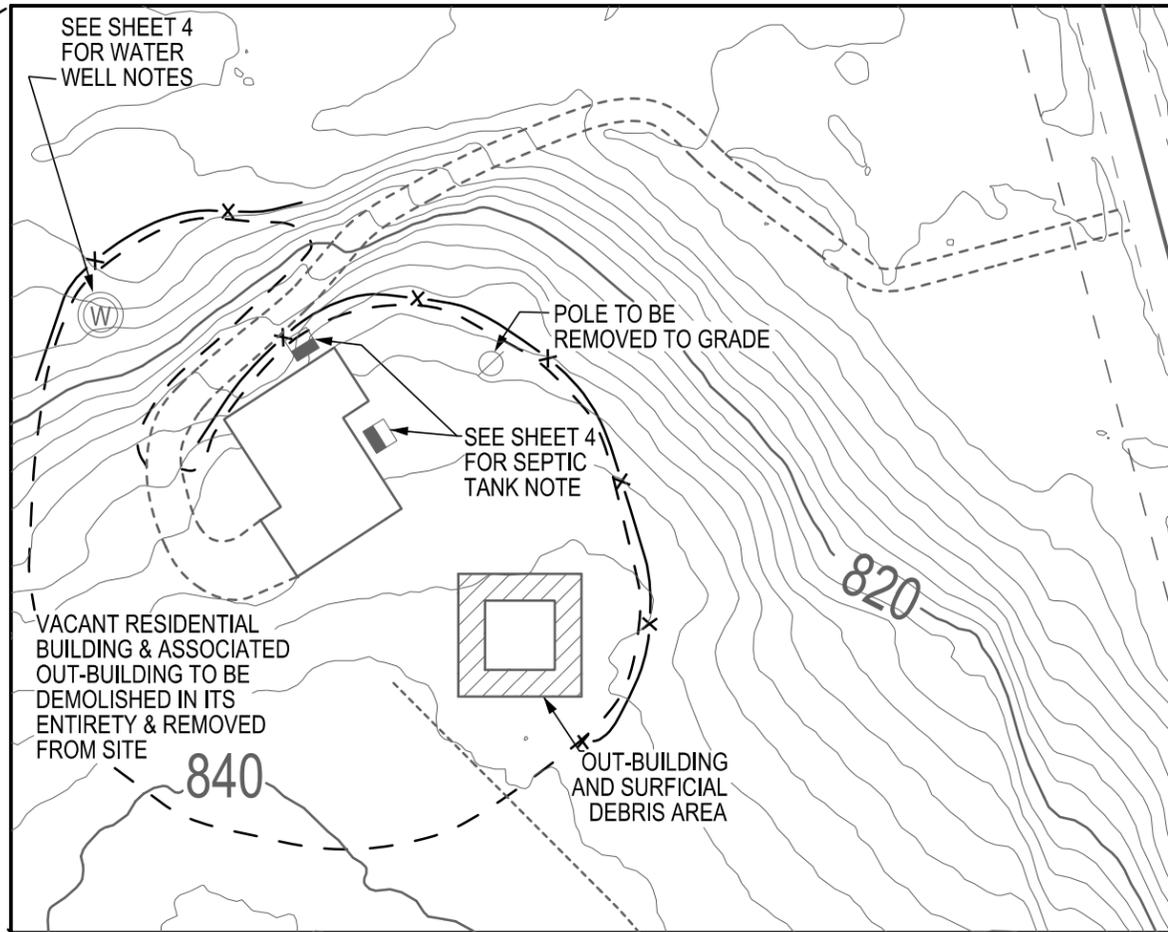
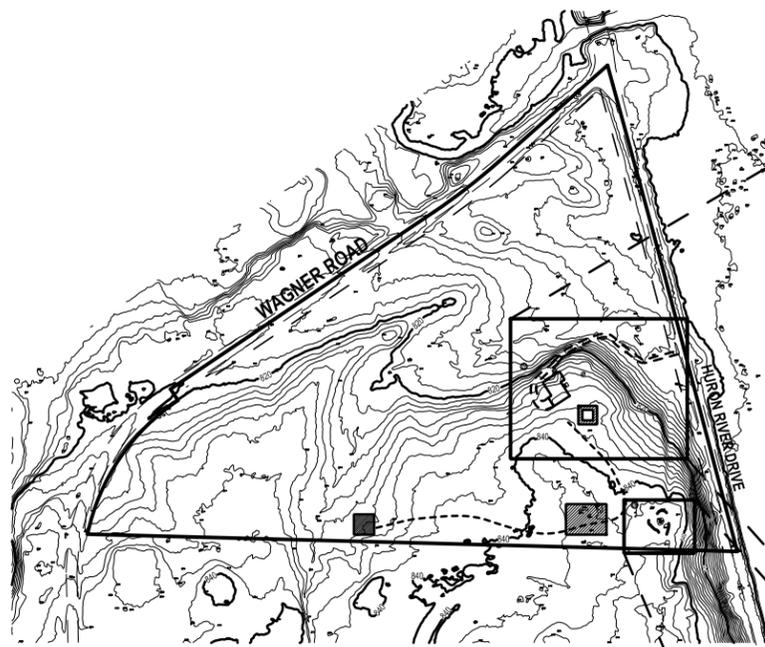


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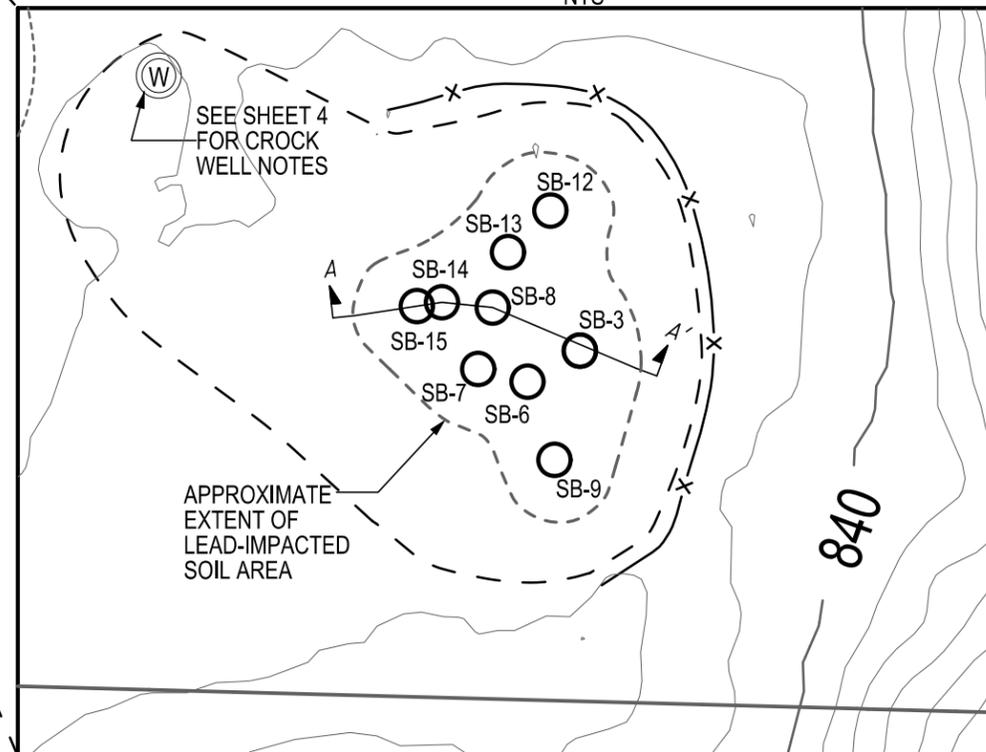
**SHEET 2**  
**EXISTING CONDITIONS**

Brokaw Property  
 3013 West Huron River Dr.  
 Washtenaw County, Michigan

DATE 10/7/2014	DRAWN BY CJB	DESIGNED BY REM	PROJECT NO. ANNA0028
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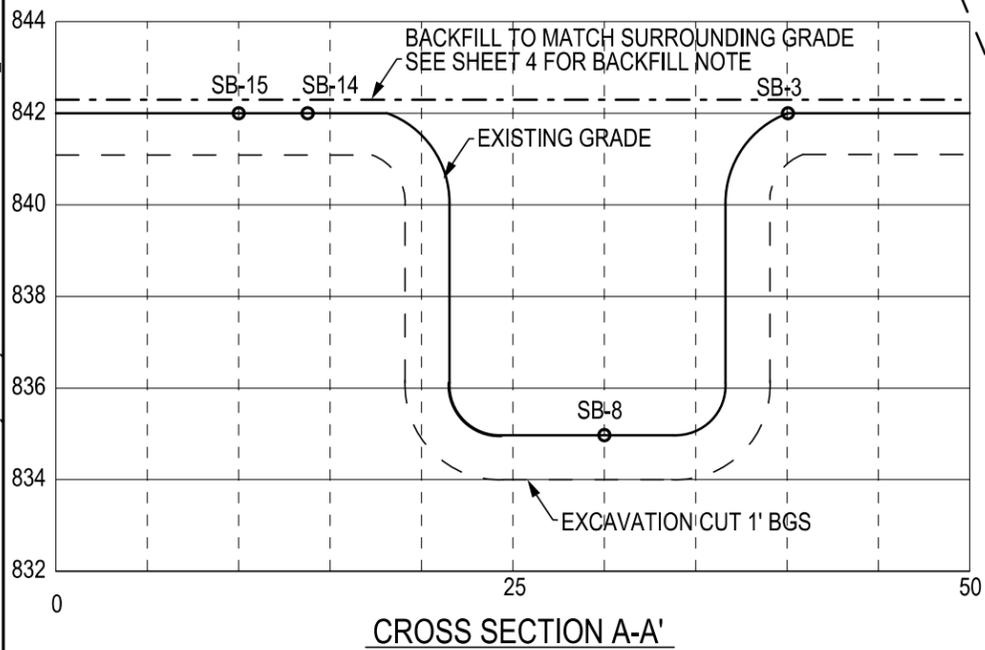
**DEMOLITION AND SURFICIAL DEBRIS REMOVAL AREA**  
NTS



**LIMITED LEAD-IMPACTED SOIL AREA**  
NTS

- LEGEND**
- UTILITY POLE
  - SUMP TANK
  - WELL
  - SURFICIAL DEBRIS AREA
  - APPROXIMATE EXTENT OF LEAD-IMPACTED SOIL AREA
  - PROPERTY LINE
  - GRAVEL DRIVE
  - PROPOSED SILT FENCE
  - EXISTING PATH
  - APPROXIMATE WORK LIMITS
  - SOIL BRINGS THAT EXCEED PART 201 GENERIC RESIDENTIAL DIRECT SOIL BRINGS THAT EXCEED
  - CROSS SECTION LINE

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**CROSS SECTION A-A'**



**SHEET 3**

**DEMOLITION PLAN**

Brokaw Property  
3013 West Huron River Dr.  
Washtenaw County, Michigan

DATE 10/9/2014	DRAWN BY CJB	DESIGNED BY REM	PROJECT NO. ANNA0028
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**WATER WELL NOTES**

1. THIS WORK SHALL BE COMPLETED BY A LICENSED WATER WELL DRILLING CONTRACTOR REGISTERED IN THE STATE OF MICHIGAN WHO SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES RELATING TO PERFORMANCE OF THE WORK.
2. PRIOR TO PLUGGING THE WATER SUPPLY WELL, THE CONTRACTOR SHALL MAKE APPROPRIATE MEASUREMENTS TO VERIFY WELL DEPTH AND DIAMETER IN ORDER TO CALCULATE THE NECESSARY AMOUNT OF PLUGGING MATERIAL. THE CONTRACTOR SHALL REMOVE THE CONCRETE BLOCK AND SURROUNDING HOUSING AND ALL MATERIALS FROM WITHIN WATER WELL WHICH MAY HINDER ITS PROPER ABANDONMENT. MATERIALS THAT MAY BE ENCOUNTERED ARE AS FOLLOWS: PUMP, DROP-PIPE, PUMP ROD, PACKER, WIRE, CHECK VALVE, AND OTHER DEBRIS OR OBSTRUCTIONS.
3. THE CONTRACTOR SHALL CUT THE WATER WELL SUPPLY CASING ONE (1) FOOT BELOW THE GROUND SURFACE.
4. THE NEAT CEMENT SLURRY SHALL BE PLACED INTO THE WATER WELL BY PUMPING DOWN A TREMIE PIPE OF AT LEAST ONE-INCH INSIDE DIAMETER WHICH HAS BEEN PLACED TO THE BOTTOM OF THE WELL TO AVOID SEGREGATION OR DILUTION OF SEALING MATERIALS. THE SLURRY SHALL BE APPLIED IN ONE CONTINUOUS OPERATION UNTIL THE ABANDONED WATER WELL IS FILLED. THE TREMIE PIPE SHALL BE SUBMERGED IN THE NEAT CEMENT SLURRY AT ALL TIMES DURING PLACEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE AMOUNT OF NEAT CEMENT SLURRY REQUIRED TO PLUG THE ABANDONED WATER WELL.

**CROCK WELL NOTES**

1. PRIOR TO PLUGGING THE CROCK WELL, THE CONTRACTOR SHALL MAKE APPROPRIATE MEASUREMENTS TO VERIFY WELL DEPTH AND DIAMETER IN ORDER TO CALCULATE THE NECESSARY AMOUNT OF BACKFILL MATERIAL. THE CONTRACTOR SHALL REMOVE ALL MATERIALS FROM WITHIN CROCK WELL WHICH MAY HINDER ITS PROPER ABANDONMENT. MATERIALS THAT MAY BE ENCOUNTERED ARE AS FOLLOWS: PUMP, DROP-PIPE, PUMP ROD, PACKER, WIRE, CHECK VALVE, AND OTHER DEBRIS OR OBSTRUCTIONS.
2. THE CONTRACTOR SHALL PLACE A LAYER OF BENTONITE CHIPS OR BENTONITE PELLETS THAT IS NOT LESS THAN SIX (6) INCHES THICK AT THE BOTTOM OF THE WELL. THE REMAINDER OF THE WELL SHALL BE PLUGGED BY PLACING MDOT CLASS II SAND IN LAYERS THAT ARE NOT MORE THAN 10 FEET THICK, WITH A LAYER OF BENTONITE CHIPS OR BENTONITE PELLETS THAT IS NOT LESS THAN SIX (6) INCHES THICK PLACED ON TOP OF EACH CLEAN SOIL BACKFILL LAYER.
3. THE UPPERMOST THREE (3) TO FOUR (4) FOOT SECTION OF STONE OR OTHER CURBING MATERIAL THAT SUPPORTS THE WELL BORE SHALL BE REMOVED. BEFORE BACKFILLING THE WELL UP TO THE GROUND SURFACE, A LAYER OF BENTONITE CHIPS OR BENTONITE PELLETS THAT IS NOT LESS THAN 6 INCHES THICK SHALL BE PLACED.

**SEPTIC TANK NOTES**

1. DISCONNECT EXISTING SEPTIC SYSTEM FROM THE VACANT RESIDENTIAL BUILDING AND SUBSEQUENT REMOVAL AND DISPOSAL OF THE SEPTIC SYSTEM, INCLUDING TWO (2) TANKS. CLOSURE OF THE SEPTIC SYSTEM WILL INCLUDE REMOVAL OF SYSTEM LIQUIDS AND SLUDGE AND PROPER OFF-SITE DISPOSAL BY A LICENSED LIQUID WASTE HAULER. UPON REMOVAL OF CONTENTS, THE TWO (2) TANKS WILL BE CRUSHED-IN-PLACE, BACKFILLED, AND RESTORED TO MATCH SURROUNDING CONDITIONS.

**TREE PROTECTION NOTES**

1. TREE PROTECTION METHODS SHALL COMPLY WITH THE FOLLOWING PRACTICES WITHIN THE DRIPLINE OF A TREE'S CRITICAL ROOT ZONE AREA. NO GRADE CHANGES. NO STORAGE OF EQUIPMENT, TOOLS, MATERIALS, SOIL OR DEBRIS OF ANY KIND. AVOID ANY ROOT ZONE SOIL COMPACTION.
2. ALL VEGETATION THAT IS NOT DESIGNATED ON THE PLANS TO BE REMOVED SHALL BE PROTECTED FROM DAMAGE. TREES THAT ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO DAYS COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN TWO INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES.
4. CONTRACTOR SHALL NOT REMOVE OR DAMAGE TREES UNLESS AUTHORIZED BY THE CITY AND/OR ITS PROFESSIONAL.

**SOIL EROSION AND SEDIMENTATION CONTROL NOTES**

1. GEOTEXTILE SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. REFER TO SILT FENCE DETAIL ON THIS SHEET.
2. PERIODIC INSPECTION AND MAINTENANCE SHALL BE DONE TO INSURE THAT ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE OPERATING PROPERLY AND EFFICIENTLY. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE CONTROL ITEMS AND THE PROJECT ENGINEER RESERVES THE AUTHORITY TO ADJUST LOCATIONS AND QUANTITIES AS INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.
3. SOIL EROSION MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CONSTRUCTION AND SHALL BE MAINTAINED AT ALL TIMES UNTIL CONSTRUCTION IS COMPLETED. THE CONTRACTOR SHALL MAINTAIN ALL SEEDED, MULCHED AREAS UNTIL FINAL INSPECTION. MAINTENANCE SHALL ALSO INCLUDE REPAIRING ANY DAMAGE FOLLOWING THE SEEDING OR MULCHING OPERATIONS. SUCH DAMAGED AREAS SHALL BE REPAIRED TO RE-ESTABLISH THE CONDITION OF THE GRADE OF THE AREA PRIOR TO SEEDING AND SHALL THEN BE RE-SEEDED, RE-MULCHED AS DIRECTED BY THE ENGINEER.
4. FILL STOCKPILES MAY REQUIRE A SILT FENCE INSTALLED ALONG THE TOE OF THE STOCKPILE, BASED UPON PROJECT ENGINEER'S DISCRETION.
5. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY, DUE TO ENVIRONMENTAL CONDITIONS AND MAY BE REQUIRED AT THE DISCRETION OF THE COUNTY SOIL AND WATER CONSERVATION DISTRICT OR ITS REPRESENTATIVES.
6. TEMPORARY EROSION CONTROL FEATURE SHALL BE ACCEPTABLY MAINTAINED AND SHALL SUBSEQUENTLY BE REMOVED OR REPLACED BY THE CONTRACTOR WHEN DIRECTED BY THE ENGINEER. TEMPORARY AND PERMANENT EROSION CONTROL FEATURES SHALL BE CHECKED AFTER EACH MEASURABLE RAINFALL AND RE-ESTABLISHED AS NECESSARY.

**BACKFILL**

BACKFILL WITH MDOT CLASS II SAND, MECHANICALLY COMPACT, SEED AND MULCH

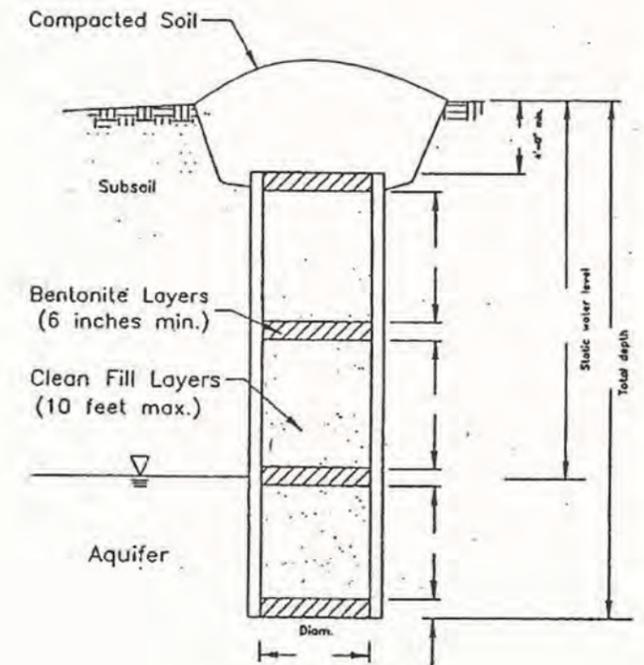
**TOPSOIL**

MINIMUM OF FOUR (4) INCHES OF APPROVED, CLEAN TOPSOIL OVER THE BACKFILLED AREA TOPSOIL SHALL AT A MINIMUM CONSIST OF THE FOLLOWING:

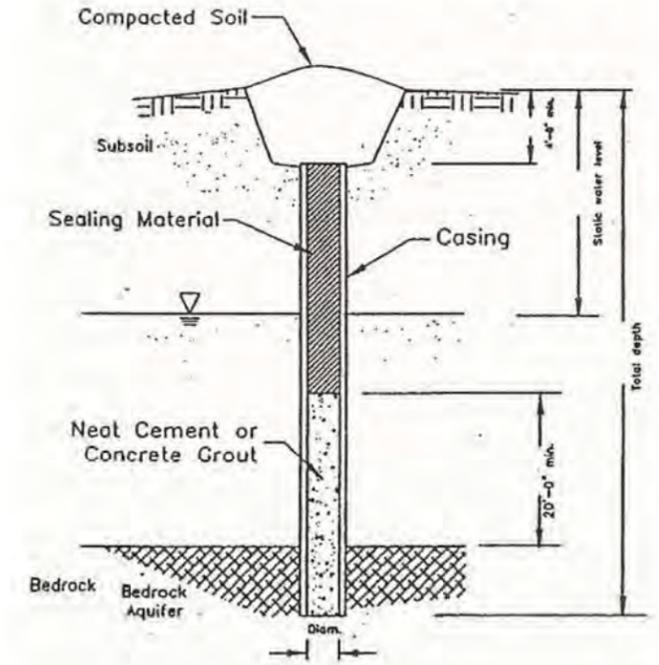
TEXTURE CLASS PERCENT	TOTAL WEIGHT	AVERAGE PERCENT
SAND (0.05-2.0 MM DIA. RANGE) 25	75	50
SILT (0.002-0.05MM DIA. RANGE) 15	40	27.5
CLAY (< 0.002 MM DIA. RANGE) 15 -	30	22.5

**SEED MIXTURE**

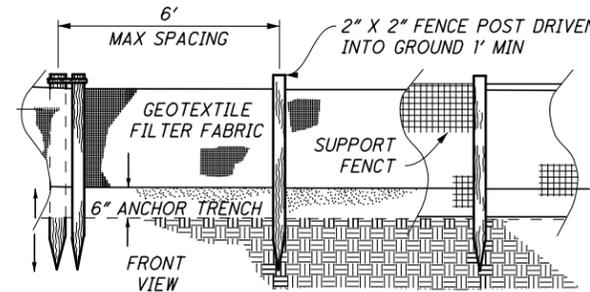
COMMON NAME	SCIENTIFIC NAME	PERCENT MIX	POUNDS PER ACRE	TOTAL POUNDS PER ACRE
<b>TEMPORARY GRASSES</b>				
SEED OATS	AVENA SATIVA	50%	15	30
ANNUAL RYE	LOLIUM MULTIFLORUM			
<b>NATIVE GRASSES</b>				
BIG BLUESTEM GRASS	ANDROPOGON GERARDII	30%	9	
CANADA WILD RYE	ELYMUS CANADENSIS			
BOTTLEBRUSH GRASS	HYSTRIX PATULA			
INDIAN GRASS	SORGHASTRUM NUTANS			
<b>NATIVE WILDFLOWERS</b>				
THIMBLEWEED	ANEMONE CYLINDRICA	20%	6	
BUTTERFLY WEED	ASCLEPIAS TUBEROSA			
NEW ENGLAND ASTER	ASTER NOVAE-ANGLIAE			
COUMBINE	AQUILEGIA CANADENSIS			
WHITE FALSE INDIGO	BAPTISIA LEUCANTHA			
TALL COREOPSIS	COREOPSIS TRIPTERIS			
SHOWY TICK TREFOIL	DESMODIUM CANADENSE			
FLOWERING SPURGE	EUPHORBIA COROLLATA			
WOODLAND SUNFLOWER	HELIANTHUS STRUMOSUS			
WILD LUPIN	LUPINUS PERENNIS			
BERGAMOT (BEE BALM)	MONARDA FISTULOSE			
EVENING PRIMROSE	OENOTHERA BIENNIS			
YELLOW CONEFLOWER	RATIBIDA PINNATA			
BLACK-EYED SUSAN	RUDBECKIA HIRTA			
TALL GOLDENROD	SOLIDAGO ALTISSIMA			
LANCE-LEAVED GOLDENROD	SOLIDAGO GRMINIFOLIA			
STIFF GOLDENROD	SOLIDAGO RIGIDA			
TALL MEADOWRUE	THALICTRUM POLYGAMUM			
CULVER'S ROOT	VERONICASTRUM VIRGINICUM			
IRONWEED	VERNONIA FASCICULATA			
GOLDEN ALEXANDERS	ZIZIA AUREA			



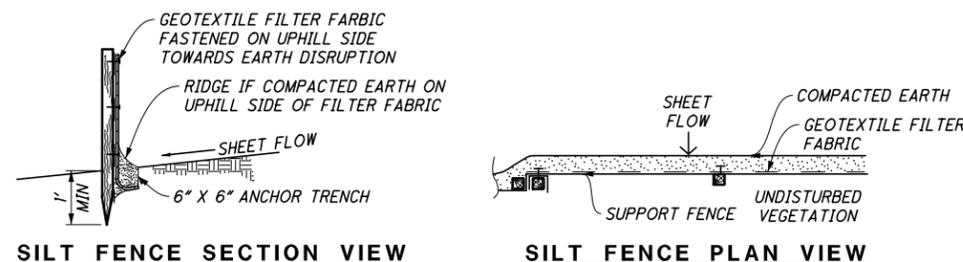
**GENERIC CROCK WELL DETAIL**



**GENERIC WATER WELL DETAIL**



**SILT FENCE DETAIL**



**SILT FENCE SECTION VIEW**

**SILT FENCE PLAN VIEW**



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**SHEET 4**

**DETAILS**

Brokaw Property  
3013 West Huron River Dr.  
Washtenaw County, Michigan

DATE	DRAWN BY	DESIGNED BY	PROJECT NO.
10/15/2014	CJB	REM	ANNA0028

**APPENDIX II**  
**REPORTS**

**SUPPLEMENTAL LIMITED  
PHASE II INVESTIGATION**  
PARCEL IDENTIFICATION NUMBER  
H-08-12-300-027  
3013 WEST HURON RIVER DRIVE  
ANN ARBOR, WASHTENAW, MICHIGAN

MAY 28, 2014

PREPARED FOR:  
**THE CITY OF ANN ARBOR**  
301 EAST HURON  
ANN ARBOR, WASHTENAW COUNTY, MICHIGAN 48104



**SUPPLEMENTAL LIMITED  
PHASE II INVESTIGATION**  
PARCEL IDENTIFICATION NUMBER  
H-08-12-300-027  
3013 WEST HURON RIVER DRIVE  
ANN ARBOR, WASHTENAW, MICHIGAN

PREPARED BY: \_\_\_\_\_

RYAN E. MONTRI  
SENIOR GEOLOGIST

REVIEWED AND APPROVED BY: \_\_\_\_\_

WALTER J. BOLT, CPG  
SENIOR VICE PRESIDENT



**TABLE OF CONTENTS**

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3.0	PURPOSE AND SCOPE OF WORK.....	1
4.0	METHODOLOGIES.....	1
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4.2	Suspect Asbestos Containing Material Sample Collection.....	2
4.3	Analytical Methods.....	2
4.4	Quality Assurance/Quality Control.....	2
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**FIGURES**

- Figure 1 Site Location Map
- Figure 2 Site Schematic Maps

**TABLES**

- Table 1 Soil Sample Analytical Detection Summary
- Table 2 Soil Sample TCLP Analytical Summary for Lead

**APPENDICES**

- Appendix A Limitations
- Appendix B Daily Activity Reports
- Appendix C Soil Boring Logs
- Appendix D Laboratory Analytical Reports and Chains of Custody

## 1.0 INTRODUCTION

The Mannik and Smith Group, Inc. (MSG) is pleased to present the City of Ann Arbor (the City) with the results of the Supplemental Limited Phase II Investigation performed at 3013 West Huron River Drive, Ann Arbor, Washtenaw County, Michigan (Site). *Figure 1, Site Location Map*, depicts the site relative to nearby roads and major topographical features. *Figure 2, Site Schematic*, depicts the Site and investigation area.

## 2.0 SITE BACKGROUND

MSG conducted a Limited Phase II Investigation of the Site on November 20, 2013, which included the collection of soil samples SB-1 (4'-5'), SB-2 (4'-5'), SB-3 (0'-1'), SB-4 (4'-5') and SB-5 (4'-5'). The Site met the definition of a "facility" as defined under *Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act* (NREPA), 1994 PA 451, as amended (Part 201) based on arsenic, lead, selenium, and zinc exceedences of the generic residential cleanup criteria (GRCC) for direct contact criteria (DCC), groundwater surface water interface protection criteria (GSIPC), and/or drinking water protection criteria (DWPC) in soil sample SB-3 (0'-1'). Subsequently, a Baseline Environmental Assessment (BEA) was submitted to the Michigan Department of Environmental Quality (MDEQ) and a Section 20107a Compliance Analysis (Due Care Plan) was written and provided to the City.

## 3.0 PURPOSE AND SCOPE OF WORK

The purpose of this Supplemental Limited Phase II Investigation is to further delineate the horizontal and vertical extent of lead-impacted soil identified in SB-3 (0'-1') as documented in the BEA and Due Care Plan. The sampling plan at the Site was developed, in part, on the location SB-3 and modified in the field based on encountered conditions and the professional judgment of MSG's field geologist. Because lead exceeded DCC, it is considered the primary chemical of concern. Soil sample results were compared to current Part 201 GRCC.

MSG performed the following scope of work to complete this Supplemental Limited Phase II Investigation:

- Advanced 22 soil borings to further delineate the horizontal and vertical extent of lead-impacted soil located on the Site.
- Submitted select soil samples for laboratory analysis of lead.
- Prepare this Supplemental Limited Phase II Investigation Report summarizing the activities and results of this investigation.

The findings of this report are valid as of the report date, subject to the Limitations presented in *Appendix A, Limitations*.

## 4.0 METHODOLOGIES

MSG completed the field activities associated with this investigation on December 3, 2013 and March 31, 2014. The following sections detail the methodologies used during the completion of this Supplemental Limited Phase II Investigation. Daily activity reports generated during the investigation are presented in *Appendix B, Daily Activity Reports*.

### 4.1 Soil Sample Collection

MSG advanced 22 soil borings [(SB-3 (1'-2'), and SB-6 through SB-25)] utilizing a hand auger. The soil boring locations (Figure 2) were selected to delineate the vertical and horizontal nature of the lead-impacted soils as identified in the BEA.

During soil boring activities, MSG field personnel visually classified and logged encountered soil conditions in general accordance with the Unified Soil Classification System (ASTM D 2488-00). The soil cuttings were observed for visual and/or olfactory indications of impact and were screened with a MiniRAE 10.6 eV photoionization detector (PID) calibrated with isobutylene span gas. The PID measures the concentration of

airborne ionizable gasses and vapors and automatically displays any detected concentrations in parts per million (ppm); however, is unable to distinguish between individual chemical constituents. Soil descriptions were based upon MSG's professional interpretation of the soils encountered and PID readings for each sample interval were recorded on individual soil boring logs (*Appendix C, Soil Boring Logs*).

MSG collected soil samples from SB-3 and SB-6 through SB-25 at intervals from 0 feet below ground surface (bgs) to 1 foot bgs and 1 foot bgs to 2 feet bgs. Groundwater was not encountered during this investigation and therefore, was not collected.

Soil samples were collected from these intervals to delineate the vertical extent of lead-impacted soils. To minimize unnecessary laboratory costs, the shallow interval was submitted for laboratory analysis of lead using United States Environmental Protection Agency (USEPA) Test Method 0200.2/6020A. If the result from the shallow interval indicates lead impacts, the deeper interval would be submitted for laboratory analysis of lead. It was the goal of MSG to collect and analyze adequate samples to document the representative site conditions without analyzing unnecessary or gratuitous samples and avoiding additional mobilizations to the Site.

The hand auger was cleaned (decontaminated) by washing with a water/Alconox® solution and thoroughly rinsed with potable water between each soil boring location and, upon completion of soil sampling activities, each of the soil borings were filled with the remaining soil cuttings from the respective soil boring locations.

#### **4.2 Suspect Asbestos Containing Material Sample Collection**

Based on the former presence of buildings in the investigation area, asbestos containing material may be present. Therefore, during soil boring activities, MSG observed the soil for SACM. SACM samples were collected by State of Michigan Accredited Asbestos Inspector, Ryan Montri (Accreditation Number A41444) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763.

#### **4.3 Analytical Methods**

A total of 16 soil samples were collected and submitted to Fibertec Environmental Services (Fibertec) in Holt, Michigan, for laboratory analysis of lead.

The sample analytical results were compared to the current GRCC established pursuant to Part 201. The analytical results and comparisons for criteria are summarized in *Table 1, Soil Sample Analytical Detection Summary*. Copies of the laboratory analytical data reports and chain of custody are included in *Appendix D, Laboratory Analytical Reports and Chains of Custody*.

#### **4.4 Quality Assurance/Quality Control**

Quality assurance/quality control (QA/QC) was achieved in the field by using MSG's standard operating procedures (SOPs) for sample collection, sample screening, sample preservation and strict chain-of-custody protocols to ensure sample integrity. Laboratory QA/QC was achieved by using standard analytical methods and internal laboratory quality assurance protocols.

### **5.0 RESULTS**

The following subsections include a discussion of soil sampling activities that were conducted on December 3, 2013 and March 31, 2014. There were no observed indications of impact (elevated PID readings, soil staining, or odors) in the soil boring profiles SB-6 through SB-25.

#### **5.1 Soil Sample Analytical Results**

A total of 22 soil samples [SB-3 (1'-2'), SB-6 (0'-1'), SB-7 (0'-1'), SB-8 (0'-1'), SB-9 (0'-1'), SB-10 (0'-1'), SB-10 (1'-2'), SB-11 (0'-1'), SB-12 (0'-1'), SB-13 (0'-1'), SB-14 (0'-1'), SB-15 (0'-1'), SB-16 (0'-1'), SB-17 (0'-1'), SB-18 (0'-1'), SB-19 (0'-1'), SB-20 (0'-1'), SB-21 (0'-1'), SB-22 (0'-1'), SB-23 (0'-1'), SB-24 (0'-1'), and SB-25 (0'-1')] were submitted to Fibertec for laboratory analysis of lead.

MSG reviewed the soil analytical data and compared the laboratory analytical results to the current GRCC as established pursuant to Part 201 (Table 1). A summary of which is provided below:

- 1) Lead was detected in excess of GRCC for DCC [400,000 micrograms per kilogram (ug/kg)] as established pursuant to Part 201 in soil samples SB-6 through SB-10 and SB-12 through SB-15.
- 2) Lead was detected in SB-11, SB-16 through SB-20, and SB-22 through SB-25 above the statewide default background level of 21,000 ug/kg, respectively.
- 3) Lead was detected in SB-21 and SB-22 below the statewide default background level.

Based on the results of this investigation, lead-impacted soils extend to a depth of approximately one (1) foot below ground surface (bgs) covering an area of approximately 2,500 square feet. MSG estimates that approximately 2,500 cubic feet (130 tons) are impacted with lead exceeding Part 201 GRCC for DCC. MSG based this estimate on the volume of lead-impacted soil and converted to pounds using a density of 105 pounds per cubic foot.

Copies of the laboratory analytical data reports and chains of custody are included in Appendix D.

## 5.2 Lead Toxicity Characteristic Leaching Procedure Analytical Results

Lead concentrations were analyzed following leach testing using the Lead Toxicity Characteristic Leaching (TCLP) method from the soil sample SB-3 (0'-1'), which exhibited the highest detected concentration of lead (3,900,000 ug/kg). Concentrations are summarized and compared to current GRCC as established pursuant to Part 201 in Table 2, *TCLP Analytical Summary for Lead*. Upon comparison, the analytical result following TCLP testing was below method detection limits for lead and therefore can be eliminated as a concern relative to the Part 201 groundwater surface water interface pathway.

Copies of the laboratory analytical data reports and chains of custody are included in Appendix D.

## 5.3 SACM Results

Seven (7) bulk samples were collected from SB-3 (1'-2'), SB-10 (1'-2'), SB-16 (0'-1'), SB-18 (0'-1'), SB-20 (0'-1'), SB-22 (0'-1'), and SB-24 (0'-1') and were submitted to Fibetec for laboratory analysis of bulk materials by Polarized Light Microscopy (PLM) using USEPA Method 600/R-93/116. Fibetec is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyze bulk samples for asbestos content. The EPA defines asbestos containing materials (ACM) as materials containing greater than 1% asbestos. Of the aforementioned bulk samples, none contained asbestos greater than 1%.

Copies of the laboratory analytical data reports and chains of custody are included in Appendix D.

## 6.0 RECOMMENDATIONS

Pursuant to a request by the City, MSG has completed a Supplemental Limited Phase II Investigation of the Site to further delineate the horizontal and vertical extent of lead-impacted soil. As previously stated, a BEA has been submitted to the MDEQ and a DCP has been written and provided to the City.

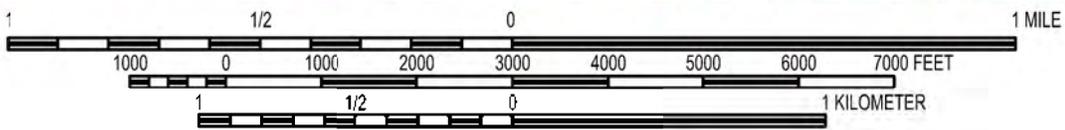
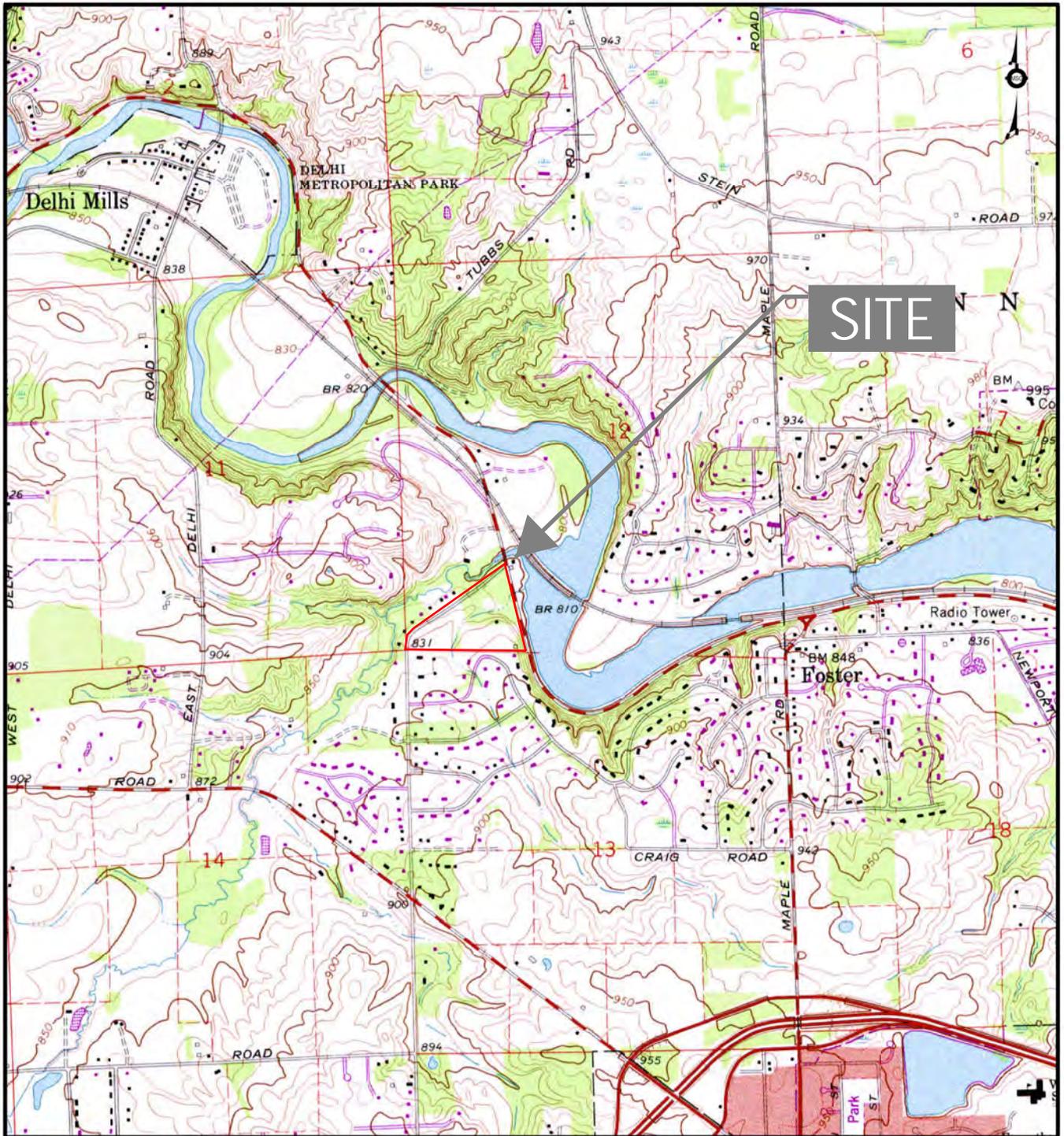
Based on the results of this investigation, MSG recommends the following:

- 1) Lead-impacted soils extend to a depth of approximately one (1) foot bgs covering an area of approximately 2,500 square feet. MSG estimates that approximately 2,500 cubic feet (130 tons) are impacted with lead exceeding Part 201 GRCC for DCC.
- 2) Soil removal within the vicinity of SB-3 should be performed to eliminate or reduce lead concentrations below applicable Part 201 GRCC for lead. Upon completion of limited soil removal activities, confirmation soil samples should be collected and submitted for laboratory analysis of lead using USEPA Test Method 0200.2/6020A. The excavation should be backfilled with clean sand as appropriate. Results will be documented and maintained in the file for the Site and managed as appropriate by the City.

- 3) Copies of the BEA and Due Care Plan will be provided to all construction workers, maintenance personnel and individuals responsible for implementing planned response activities and/or due care at the Site. Access to the Site will be limited during implementation of response activities.
- 4) Provide updated information to the MDEQ upon completion of the response activities.

FIGURES





CONTOUR INTERVAL 10 FEET  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

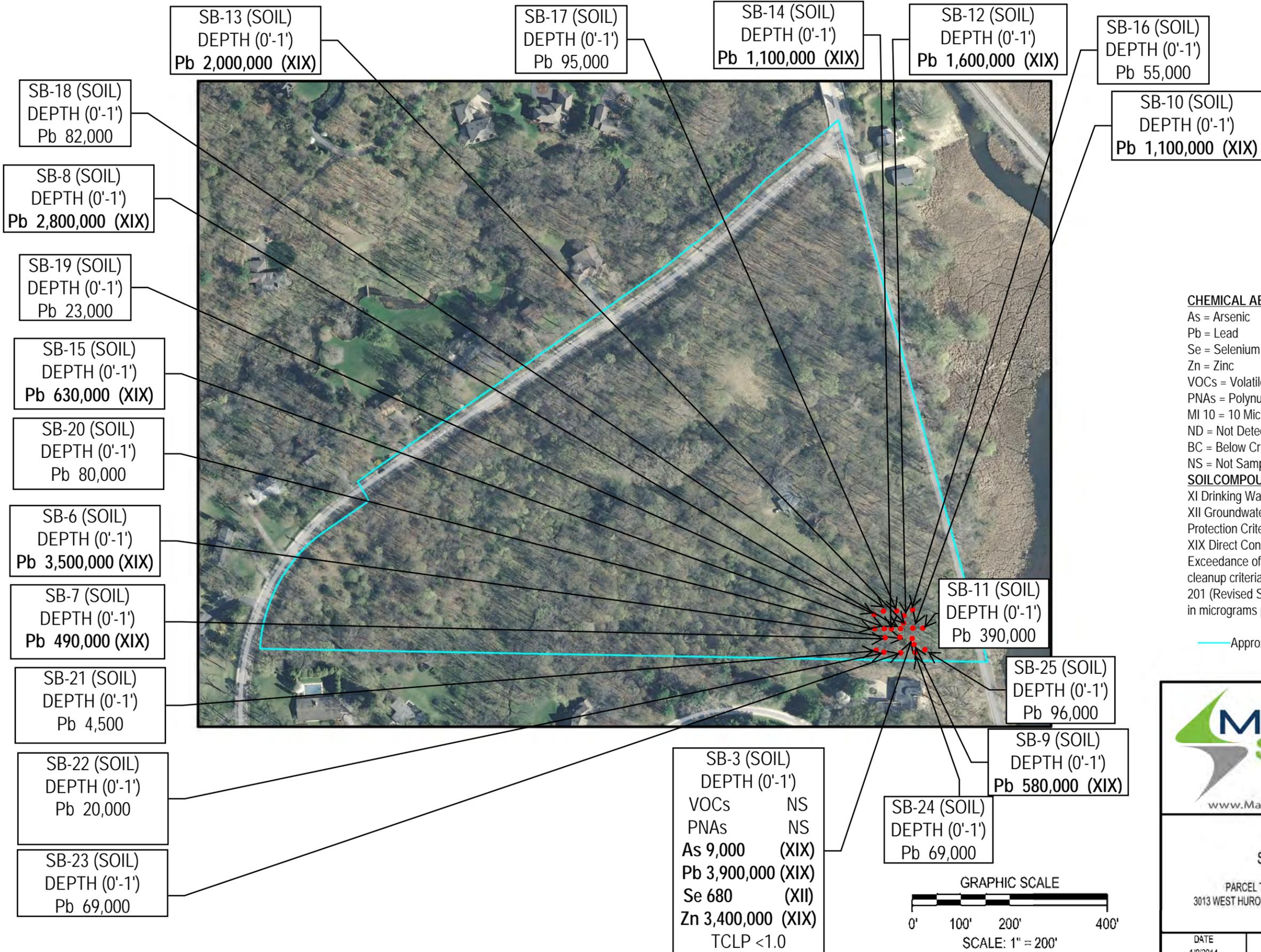
— Approximate Site Boundary

**FIGURE 1  
 SITE LOCATION MAP**

PARCEL TAX IDENTIFICATION NUMBER H-08-012-360-027  
 3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO ANNA0026
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1/8/2014 2:26:47 PM  
 W:\Projects\Projects A-E\ANNA0026\CAD\BEAVANNA0026\_Figure 2\_Site Schematic Map.dgn

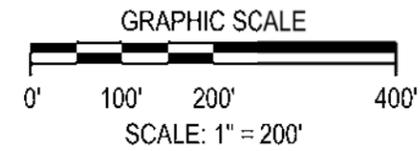


**CHEMICAL ABBREVIATIONS**  
 As = Arsenic  
 Pb = Lead  
 Se = Selenium  
 Zn = Zinc  
 VOCs = Volatile Organic Compounds  
 PNAs = Polynuclear Aromatic Hydrocarbons  
 MI 10 = 10 Michigan Metals  
 ND = Not Detected  
 BC = Below Criteria  
 NS = Not Sampled

**SOILCOMPOUND CONCENTRATIONS**  
 XI Drinking Water Protection Criteria  
 XII Groundwater Surface Water Interface Protection Criteria  
 XIX Direct Contact Criteria

Exceedance of the current generic residential cleanup criteria as established pursuant to Part 201 (Revised September 28, 2012). All units are in micrograms per kilogram (ug/kg).

— Approximate Site Boundary



**FIGURE 2**  
**SITE SCHEMATIC MAP**  
 PARCEL TAX IDENTIFICATION NUMBER H-08-012-300-027  
 3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO. ANNA0026
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TABLES



**Table 1  
Soil Sample Analytical Detection Summary**

Brokaw Property  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	Volatile Organic Compounds (VOCs)																														
	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane (Dichlorobromomethane)	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	p-Chlorotoluene (2-Chlorotoluene)	Dibromochloromethane	Dibromochloropropane (1,2- Dibromo-3-Chloropropane)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethylene		
CAS Number	67-64-1	107-13-1	71-43-2	108-86-1	74-97-5	75-27-4	75-25-2	74-83-9	78-93-3	104-51-8	135-98-8	98-06-6	75-15-0	56-23-5	108-90-7	75-00-3	67-66-3	74-87-3	95-49-8	124-48-1	96-12-8	74-95-3	95-50-1	541-73-1	106-46-7	75-71-8	75-34-3	107-06-2	75-35-4		
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Drinking Water Protection Criteria (XI)	15,000	100 (M, X): 52	100	550	NA	1,600 (W)	1,600 (W)	200	2,60E+05	1,600	1,600	1,600	16,000	100	2,000	8,600	1,600 (W)	5,200	3,300	1,600 (W)	10 (M): 4.0	1,600	14,000	170	1,700	95,000	18,000	100	140		
Groundwater Surface Water Interface Protection Criteria (XII)	34,000	100 (M, X): 40	4,000 (X)	NA	NA	ID	ID	700	44,000	ID	ID	ID	ID	900 (X)	500	22,000 (X)	7,000	ID	ID	ID	ID	NA	280	680	360	ID	15,000	7,200 (X)	2,600		
Groundwater Contact Protection Criteria (XIII)	1.1E+08 (C)	2.8E+05	2.2E+05	3.6E+05	NA	2.8E+05	8.7E+05 (C)	1.4E+06	2.7E+07 (C)	1.2E+05	88,000	1.8E+05	2.8E+05 (C)	92,000	2.6E+05 (C)	9.5E+05 (C)	1.5E+06 (C)	1.1E+06 (C)	5.0E+05 (C)	3.6E+05	1,200 (C)	2.0E+06 (C)	2.1E+05 (C)	51,000	1.4E+05	1.0E+06 (C)	8.9E+05 (C)	3.8E+05	2.2E+05		
Soil Vapor Intrusion Concentration (S <sub>VI,10m</sub> ) (C)	3.11E+05	100 (I)	50.0 (I)	771	NA	100 (I)	564	200 (I)	1.81E+05	450	50.0 (I)	76.5	250 (I)	50.0 (I)	349	4,000	50.0 (I)	250 (I)	764	100 (I)	11.5	NA	5,770	100 (I)	100 (I)	4060	437	50.0 (I)	73.3		
Soil Volatilization to Indoor Air Inhalation (XIV)	1.1E+08 (C)	6,600	1,600	3.1E+05	NA	1,200	1.5E+05	860	2.7E+07 (C)	ID	ID	ID	76,000	190	1.2E+05	9.5E+05 (C)	7,200	2,300	2.7E+05	3,900	220	ID	2.1E+05 (C)	26,000	19,000	9.0E+05	2.3E+05	2,100	62		
Infinite Source Volatile Soil Inhalation Criteria (XV)	1.3E+08	5,000	13,000	4.5E+05	NA	9,100	9.0E+05	11,000	2.90E+07	ID	ID	ID	1.3E+06	3,500	7.7E+05	3.0E+07	45,000	40,000	1.2E+06	24,000	260	ID	3.9E+07	79,000	77,000	5.3E+07	2.1E+06	6,200	1,100		
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XVI)	1.3E+08	5,100	34,000	4.5E+05	NA	9,700	9.0E+05	57,000	2.90E+07	ID	ID	ID	7.9E+06	12,000	9.9E+05	1.2E+08	1.2E+05	4.1E+05	2.9E+06	24,000	260	ID	3.9E+07	79,000	77,000	5.5E+08	5.9E+06	11,000	5,300		
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XVII)	1.9E+08	10,000	79,000	4.5E+05	NA	19,000	9.0E+05	1.4E+05	3.50E+07	ID	ID	ID	1.9E+07	28,000	2.1E+06	2.8E+08	2.7E+05	1.0E+06	6.3E+06	33,000	260	ID	5.2E+07	1.1E+05	1.1E+05	1.4E+09	1.4E+07	26,000	13,000		
Particulate Soil Inhalation Criteria (XVIII)	3.9E+11	4.6E+07	3.8E+08	5.3E+08	NA	8.4E+07	2.8E+09	3.3E+08	6.7E+10	2.0E+09	4.0E+08	6.7E+08	4.7E+10	1.3E+08	4.7E+09	6.7E+11	1.3E+09	4.9E+09	4.7E+09	1.3E+08	5.6E+05	ID	1.0E+11	2.0E+08	4.5E+08	3.3E+12	3.3E+10	1.2E+08	6.2E+07		
Direct Contact Criteria (XIX)	2.3E+07	16,000	1.8E+05	5.4E+05	NA	1.1E+05	8.2E+05	3.2E+05	2.7E+07 (C, DD)	2.5E+06	2.5E+06	2.5E+06	2.8E+05 (C, DD)	96,000	2.6E+05 (C)	9.5E+05 (C)	1.2E+06	1.1E+06 (C)	5.0E+05 (C)	1.1E+05	1,200 (C)	2.0E+06 (C)	2.1E+05 (C)	1.7E+05 (C)	4.0E+05	1.0E+06 (C)	8.9E+05 (C)	91,000	2.0E+05		
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XX)	1.1E+08	8.3E+06	4.0E+05	7.6E+05	NA	1.5E+06	8.7E+05	2.2E+06	2.70E+07	1.0E+07	1.0E+07	1.0E+07	2.8E+05	3.9E+05	2.6E+05	9.5E+05	1.5E+06	1.1E+06	5.0E+05	6.1E+05	1,200	2.0E+06	2.1E+05	1.7E+05	NA	1.0E+06	8.9E+05	1.2E+06	5.7E+05		
SAMPLE ID	DEPTH	SAMPLE DATE																													
SB-1	4'-5'	11/20/2013	<1,000	<120	<50	<100	<100	<100	<120	<200	<750	<50	<58	<50	<290	<58	<58	<290	<58	<250	<50	<120	<29	<250	<100	<100	<100	<250	<58	<58	<50
SB-2	4'-5'	11/20/2013	<1,000	<110	<50	<100	<110	<100	<110	<200	<750	<50	<55	<50	<270	<55	<55	<270	<55	<250	<50	<110	<27	<250	<100	<100	<100	<250	<55	<55	<50
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-3	1'-2'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-6	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-7	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-8	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-9	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-10	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-10	1'-2'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-11	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-12	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-13	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-14	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-15	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-16	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-17	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-18	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-19	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-20	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-21	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-22	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-23	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-24	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-25	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:  
**Bold** indicates concentration above laboratory reporting limits.  
 Roman numerals indicate DEQ criterion number  
**Gray** indicates indicates sample location subsequently removed

**Table 1  
Soil Sample Analytical Detection Summary**

Brokaw Property  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	VOCs Continued																																
	1,1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Ethylene Dibromide (EDB, 1,2-Dibromoethane)	2-Hexanone	1,1-Dichloroethane (Methyl iodide)	Isopropylbenzene (Cumene)	4-Methyl-2-Pentanone (MIBK)	Methylene Chloride	Methyl tert-butyl ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethylene	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethylene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,3,4-Tetramethylbenzene	1,2,4-Tetramethylbenzene	1,3,5-Tetramethylbenzene	Vinyl Chloride	Total Xylenes		
CAS Number	156-59-2	156-60-5	78-87-5	542-75-6	542-75-6	100-41-4	106-93-4	591-78-6	74-88-4	98-82-8	108-10-1	75-09-2	1634-04-4	91-20-3	103-65-1	100-42-5	630-20-6	79-34-5	127-18-4	108-88-3	120-82-1	71-55-6	79-00-5	79-01-6	75-69-4	96-18-4	526-73-8	95-63-6	108-67-8	75-01-4	1330-20-7		
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Drinking Water Protection Criteria (XI)	1,400	2,000	100	NA	NA	1,500	20 (M); 1.0	20,000	NA	91,000	36,000	100	800	35,000	1,600	2,700	1,500	170	100	16,000	4,200	4,000	100	100	52,000	840	NA	2,100	1,800	40	5,600		
Groundwater Surface Water Interface Protection Criteria (XII)	12,000	30,000 (X)	4,600 (X)	NA	NA	360	110 (X)	ID	NA	3,200	ID	30,000 (X)	1.4E+05 (X)	730	ID	2,100 (X)	ID	1,600 (X)	1,200 (X)	5,400	5,900 (X)	1,800	6,600 (X)	4,000 (X)	NA	NA	570	1,100	260 (X)	820			
Groundwater Contact Protection Criteria (XIII)	6.4E+5 (C)	1.4E+6 (C)	3.2E+05	NA	NA	1.4E+05 (C)	500	2.5E+06 (C)	NA	3.9E+05 (C)	2.7E+06 (C)	2.3E+06 (C)	5.9E+06 (C)	2.1E+06	3.0E+05	2.7E+05	4.4E+05 (C)	94,000	88,000 (C)	2.5E+05 (C)	1.1E+06	4.6E+05 (C)	4.2E+05	4.4E+05	5.6E+05 (C)	8.3E+05 (C)	NA	1.1E+05 (C)	94,000 (C)	20,000	1.5E+05 (C)		
Soil Vapor Intrusion Concentration (S <sub>VIR,CS</sub> ) (c)	50.0 (f)	50.0 (f)	50.0 (f)	NA	NA	198	20.0 (f)	2,500 (f)	NA	250 (f)	61,900	100 (f)	14,200	443	141	1,500	100 (f)	52.4	10,100	349	3,970	50.0 (f)	50.0 (f)	50.0 (e,f)	7,050	NA	3,180	2,200	1,660	40.0 (f,f)	291		
Soil Volatilization to Indoor Air Inhalation (XIV)	22,000	23,000	4,000	NA	NA	87,000	670	9.9E+05	NA	3.9E+05 (C)	2.7E+06 (C)	45,000	5.9E+06 (C)	2.5E+05	ID	2.5E+05	6,200	4,300	11,000	2.5E+05 (C)	1.1E+06 (C)	2.5E+05	4,600	1,000	5.6E+05 (C)	4,000	NA	1.1E+05 (C)	94,000 (C)	270	1.5E+05 (C)		
Infinite Source Volatile Soil Inhalation Criteria (XV)	1.8E+05	2.8E+05	25,000	NA	NA	7.2E+05	1,700	1.1E+06	NA	1.7E+06	4.5E+07	2.1E+05	2.5E+07	3.0E+05	ID	9.7E+05	36,000	10,000	1.7E+05	2.8E+06	2.8E+07	3.8E+06	17,000	11,000	9.2E+07	9,200	NA	2.1E+07	1.60E+07	4,200	4.6E+07		
Finite Source Volatile Soil Inhalation Criteria (5 m) (XVI)	4.2E+05	8.3E+05	50,000	NA	NA	1.0E+06	1,700	1.1E+06	NA	1.7E+06	4.5E+07	5.9E+05	3.9E+07	3.0E+05	ID	9.7E+05	54,000	10,000	4.8E+05	5.1E+06	2.8E+07	1.2E+07	21,000	25,000	6.3E+08	9,200	NA	5.0E+08	3.80E+08	30,000	6.1E+07		
Finite Source Volatile Soil Inhalation Criteria (2 m) (XVII)	9.9E+05	2.0E+06	1.1E+05	NA	NA	2.2E+06	3,300	1.4E+06	NA	2.8E+06	6.7E+07	1.4E+06	8.7E+07	3.0E+05	ID	1.4E+06	1.0E+05	14,000	1.1E+06	1.2E+07	2.8E+07	2.8E+07	44,000	57,000	1.5E+09	11,000	NA	5.0E+08	3.80E+08	73,000	1.3E+08		
Particulate Soil Inhalation Criteria (XVIII)	2.3E+09	4.7E+09	2.7E+08	NA	NA	1.0E+10	1.4E+07	2.7E+09	NA	5.8E+09	1.4E+11	6.6E+09	2.0E+11	2.0E+08	1.3E+09	5.5E+09	4.2E+08	5.4E+07	2.7E+09	2.7E+10	2.5E+10	6.7E+10	1.9E+08	1.3E+08	3.8E+12	2.0E+07	NA	8.2E+10	8.20E+10	3.5E+08	2.9E+11		
Direct Contact Criteria (XIX)	6.4E+5 (C)	1.4E+6 (C)	1.4E+05	NA	NA	1.4E+05 (C)	92	2.5E+06 (C)	NA	3.9E+05 (C)	2.7E+06 (C)	1.3E+06	1.5E+06	1.6E+07	2.5E+06	4.0E+05	4.4E+05 (C)	53,000	88,000 (C)	2.5E+05 (C)	9.9E+05 (DD)	4.6E+05 (C)	1.8E+05	5.0E+5 (C,DD)	5.6E+05 (C)	8.3E+05 (C)	NA	1.1E+05 (C)	94,000 (C)	3,800	1.5E+05 (C)		
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XX)	6.4E+05	1.4E+06	5.5E+05	NA	NA	1.4E+05	8.9E+05	2.5E+06	NA	3.9E+05	2.7E+06	2.3E+06	5.9E+06	NA	1.0E+07	5.2E+05	4.4E+05	8.7E+05	88,000	2.5E+05	1.1E+06	4.6E+05	9.2E+05	5.0E+05	5.6E+05	8.3E+05	NA	1.1E+05	94,000	4.9E+05	1.5E+05		
<b>SAMPLE ID</b>	<b>DEPTH</b>	<b>SAMPLE DATE</b>																															
SB-1	4'-5'	11/20/2013	<50	<50	<58	<58	<58	<50	<58	<2,500	<120	<250	<2,500	<100	<250	<330	<100	<58	<120	<58	<50	<50	<330	<58	<58	<58	<100	<120	<100	<100	<100	<58	<150
SB-2	4'-5'	11/20/2013	<50	<50	<55	<55	<50	<55	<2,500	<110	<250	<2,500	<100	<250	<330	<100	<55	<110	<55	<50	<50	<330	<55	<55	<55	<100	<110	<100	<100	<100	<55	<150	
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-3	1'-2'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-6	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-7	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-8	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-9	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-10	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-10	1'-2'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-11	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-12	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-13	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-14	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-15	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-16	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-17	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-18	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-19	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-20	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-21	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-22	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-23	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-24	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-25	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

**Bold** indicates concentration above laboratory reporting limits.

Roman numerals indicate DEQ criterion number

**Gray** indicates indicates sample location subsequently removed

Exceeds Drinking Water Protection Criteria (XI)

Exceeds Groundwater Surface Water Interface Protection Criteria (XII)

Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)

Exceeds Two or More DWP (XI), GSP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)

Exceeds Generic Groundwater Contact Protection Criteria (XIII)

Exceeds Direct Contact Criteria (XIX) and/or Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)

ND = Not Detected above laboratory reporting limits

**Table 1**  
**Soil Sample Analytical Detection Summary**

Brokaw Property  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

SOIL: Part 2011/213 Generic Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg			Polynuclear Aromatic Compounds (PNAAs)															
			Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(e)pyrene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Phenanthrene	Pyrene
CAS Number			83-32-9	208-96-8	120-12-7	56-55-3	205-99-2	207-08-9	191-24-2	50-32-8	218-01-9	53-70-3	206-44-0	86-73-7	193-39-5	91-57-6	85-01-8	129-00-0
Statewide Default Background Levels (X)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Drinking Water Protection Criteria (XI)			3.0E+05	5,900	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.3E+05	3.9E+05	NLL	57,000	56,000	4.8E+05
Groundwater Surface Water Interface Protection Criteria (XII)			8,700	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	2,100	ID
Groundwater Contact Protection Criteria (XIII)			9.7E+05	4.4E+05	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.3E+05	8.9E+05	NLL	5.5E+06	1.1E+06	4.8E+05
Soil Vapor Intrusion Concentration (S <sub>vires</sub> ) (c)			4.32E+05	1.68E+05	3.56E+07	NA	NA	NA	NA	NA	NA	NA	NA	7.09E+05	NA	7,480	5,140	6.47E+07
Soil Volatilization to Indoor Air Inhalation (XIV)			1.9E+08	1.6E+06	1.0E+09 (D)	NLV	ID	NLV	NLV	NLV	ID	NLV	1.0E+09 (D)	5.8E+08	NLV	2.7E+06	2.8E+06	1.0E+09 (D)
Infinite Source Volatile Soil Inhalation Criteria (XV)			8.1E+07	2.2E+06	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.5E+06	1.6E+05	6.5E+08
Finite Source Volatile Soil Inhalation Criteria (5 m) (XVI)			8.1E+07	2.2E+06	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.5E+06	1.6E+05	6.5E+08
Finite Source Volatile Soil Inhalation Criteria (2 m) (XVII)			8.1E+07	2.2E+06	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.5E+06	1.6E+05	6.5E+08
Particulate Soil Inhalation Criteria (XVIII)			1.4E+10	2.3E+09	6.7E+10	ID	ID	ID	8.0E+08	1.5E+06	ID	ID	9.3E+09	9.3E+09	ID	6.7E+08	6.7E+06	6.7E+09
Direct Contact Criteria (XIX)			4.1E+07	1.6E+06	2.3E+08	20,000	20,000	2.0E+05	2.5E+06	2,000	2.0E+06	2,000	4.6E+07	2.7E+07	20,000	8.1E+06	1.6E+06	2.9E+07
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XX)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SAMPLE ID	DEPTH	SAMPLE DATE	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-1	4'-5'	11/20/2013	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-2	4'-5'	11/20/2013	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-3	1'-2'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-6	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-7	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-8	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-9	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-10	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-10	1'-2'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-11	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-12	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-13	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-14	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-15	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-16	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-17	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-18	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-19	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-20	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-21	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-22	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-23	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-24	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-25	0'-1'	3/31/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

**Bold** indicates concentration above laboratory reporting limits.

Roman numerals indicate DEQ criterion number

**Gray** indicates indicates sample location subsequently removed

Exceeds Drinking Water Protection Criteria (XI)

Exceeds Groundwater Surface Water Interface Protection Criteria (XII)

Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)

Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)

Exceeds Generic Groundwater Contact Protection Criteria (XIII)

Exceeds Direct Contact Criteria (XIX) and/or Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)

ND = Not Detected above laboratory reporting limits

NS = Not Sampled or Not Analyzed

NR = Not Reported (Data missing from provided report)

**Table 1**  
**Soil Sample Analytical Detection Summary**

Brokaw Property  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg			Metals									
			Arsenic	Barium (B)	Cadmium (B)	Chromium	Copper (B)	Lead (B)	Mercury (B,Z)	Selenium (B)	Silver (B)	Zinc (B)
CAS Number			7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6
Statewide Default Background Levels (X)			5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000
Drinking Water Protection Criteria (XI)			4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	4,500	2.4E+06
Groundwater Surface Water Interface Protection Criteria (XII)			4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M); 1.2	400	100 (M); 27	(G)
Groundwater Contact Protection Criteria (XIII)			2.0E+06	1.0E+09 (D)	2.3E+08	1.4E+08	1.0E+09 (D)	ID	47,000	7.8E+07	2.0E+08	1.0E+09 (D)
Soil Vapor Intrusion Concentration (S <sub>v,i</sub> ) (c)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Volatilization to Indoor Air Inhalation (XIV)			NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV
Infinite Source Volatile Soil Inhalation Criteria (XV)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Finite Source Volatile Soil Inhalation Criteria (5 m) (XVI)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Finite Source Volatile Soil Inhalation Criteria (2 m) (XVII)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Particulate Soil Inhalation Criteria (XVIII)			7.2E+05	3.3E+08	1.7E+06	2.6E+05	1.3E+08	1.0E+08	2.0E+07	1.3E+08	6.7E+06	ID
Direct Contact Criteria (XIX)			7,600	3.7E+07	5.5E+05	2.5E+06	2.0E+07	4.0E+05	1.6E+05	2.6E+06	2.5E+06	1.7E+08
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XX)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SAMPLE ID	DEPTH	SAMPLE DATE										
SB-1	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-2	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-3	0'-1'	11/20/2013	<b>9,000</b>	<b>1,200,000</b>	<b>3,100</b>	<b>17,000</b>	<b>160,000</b>	<b>3,900,000</b>	<50	<b>680</b>	<b>190</b>	<b>3,400,000</b>
SB-3	1'-2'	3/31/2014	NS	NS	NS	NS	NS	230,000	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	<b>2,800</b>	<b>9,800</b>	<b>100</b>	<b>3,800</b>	<b>5,300</b>	<b>3,800</b>	<50	<200	<100	<b>18,000</b>
SB-5	4'-5'	11/20/2013	<b>4,400</b>	<b>13,000</b>	<b>100</b>	<b>6,100</b>	<b>6,900</b>	<b>7,000</b>	<50	<200	<100	<b>21,000</b>
SB-6	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>3,500,000</b>	NS	NS	NS	NS
SB-7	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>490,000</b>	NS	NS	NS	NS
SB-8	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>2,800,000</b>	NS	NS	NS	NS
SB-9	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>580,000</b>	NS	NS	NS	NS
SB-10	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>1,100,000</b>	NS	NS	NS	NS
SB-10	1'-2'	3/31/2014	NS	NS	NS	NS	NS	<b>60,000</b>	NS	NS	NS	NS
SB-11	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>390,000</b>	NS	NS	NS	NS
SB-12	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>1,600,000</b>	NS	NS	NS	NS
SB-13	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>2,000,000</b>	NS	NS	NS	NS
SB-14	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>1,100,000</b>	NS	NS	NS	NS
SB-15	0'-1'	12/3/2013	NS	NS	NS	NS	NS	<b>630,000</b>	NS	NS	NS	NS
SB-16	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>55,000</b>	NS	NS	NS	NS
SB-17	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>95,000</b>	NS	NS	NS	NS
SB-18	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>82,000</b>	NS	NS	NS	NS
SB-19	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>23,000</b>	NS	NS	NS	NS
SB-20	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>80,000</b>	NS	NS	NS	NS
SB-21	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>4,500</b>	NS	NS	NS	NS
SB-22	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>20,000</b>	NS	NS	NS	NS
SB-23	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>69,000</b>	NS	NS	NS	NS
SB-24	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>69,000</b>	NS	NS	NS	NS
SB-25	0'-1'	3/31/2014	NS	NS	NS	NS	NS	<b>96,000</b>	NS	NS	NS	NS

Notes:

**Bold** indicates concentration above laboratory reporting limits.

Roman numerals indicate DEQ criterion number

**Gray** indicates indicates sample location subsequently removed

Exceeds Drinking Water Protection Criteria (XI)

Exceeds Groundwater Surface Water Interface Protection Criteria (XII)

Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)

Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)

Exceeds Generic Groundwater Contact Protection Criteria (XIII)

Exceeds Direct Contact Criteria (XIX) and/or Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)

ND = Not Detected above laboratory reporting limits

NS = Not Sampled or Not Analyzed

NR = Not Reported (Data missing from provided report)

**Table 2**  
**Soil Sample TCLP Analytical**  
**Detection**  
**Summary for Lead**

Brokaw Property  
 3013 West Huron River Drive  
 Ann Arbor, Washtenaw County, Michigan

		TCLP LEAD	
		Lead (B)	
Act 307 Type B Cleanup Criteria for Groundwater (Revision 3) February 1994 Units: mg/L			
Health-Based Drinking Water Value [R 709(2)(a)(b)]		0.004 {C, O}	
Aesthetic Drinking Water Value [R 709(2)(c)(d)]		NA	
Groundwater Surfacewater Interface Value {A} [R 713]		0.0066 {C,E,Q}	
SAMPLE ID	SAMPLE DATE		
SB-3	11/20/2013	<1.0	

Notes:

**Bold** indicates concentration above method detection limits.

Exceeds Groundwater Surfacewater Interface Value {A} [R 713]

NS = Not Sampled

**Michigan Department of Environmental Quality Footnotes**

*{C} Background, as defined in Rule 701(c), may be substituted as the cleanup criteria if higher than the Type B cleanup criterion.*

*{E} GSI value is dependant on water hardness. Value presented was calculated assuming a hardness of 178 mg/L of CaCO<sub>3</sub>. If site-specific water hardness is expected to be significantly different, contact ERD toxicologist.*

*{O} Higher level may be acceptable if soil concentration is less than 400 ppm and groundwater migrating off-site will not impact adjacent properties. Contact an ERD toxicologist for further explanation.*

*{Q} Basis for the GSI value is the National Toxics Rule (NTR). The NTR value was either more restrictive than the Rule 57 value or a Rule 57 value was not available.*

## APPENDIX A

### Limitations



## PHASE II ENVIRONMENTAL SITE ASSESSMENT LIMITATIONS

This Phase II Environmental Site Assessment (ESA) and related documentation are site-specific, which means they pertain to the environmental conditions of the subject property only.

The Mannik & Smith Group, Inc. (MSG) performed its services associated with the Phase II ESA in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in these reports are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

Contaminants may be hidden in subsurface material, covered by pavement, vegetation, or other substances. Additionally, contamination may not be present in predictable locations. MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown contamination. This risk may be reduced by more extensive exploration on the site. Even with additional exploration, it is not possible to completely eliminate the risk of discovering contamination on site. It can not be assumed that samples collected and conditions observed are representative of an area that has not been sampled and/or tested.

Some environmental assessments are undertaken to satisfy "due diligence", "all appropriate inquiry," or other regulatory requirements provided in federal, state, or local law. Although MSG strives to investigate a site in accordance with the scope of work as defined by written agreement with a client, it cannot warrant that the work undertaken for this report will satisfy "due diligence", "all appropriate inquiry," or any other similar standard under any federal, state, or local law.

Due to changing environmental regulatory conditions and potential on-site activities after the completion of the Phase II ESA field investigation, the client may rely upon the conclusions within this Phase II ESA report for a period of six months from the report's issuance date.

APPENDIX B

DAILY ACTIVITY REPORTS



**DAILY FIELD REPORT**

Client: City of Ann Arbor Report No.: 2

Project: Brokaw Limited Phase II Investigation Job No.: ANNA0026

Date: December 3, 2013		Day: Tuesday		Temp: 16°F (AM) 26° (PM)	
MSG CQA Personnel: Ryan Montri				Cloud Cover: PC (AM) PC (PM)	
MSG Hours On-Site: 6.00				Precip: 1/10" (AM) 0 (PM)	
				Contractors:	
<b>Contractors Information</b>					
Contractor: MSG		No. Men and Type: Ryan Montri		Equipment Type: Hand Auger MiniRae 3000 PID	
Supervisor: Ryan Montri				Supervisor:	
<b>Summary of Work Performed</b>					
Supplemental Limited Phase II Investigation					
<b>Field Notes</b>					
0900 MSG onsite to perform Limited Supplemental Phase II Investigation associated with SB-3 that exceeded Part 201 Generic Residential Criteria for direct contact. The City of Ann Arbor granted MSG access to the site. Upon arrival to the site, MSG assessed that area surrounding SB-3 in an effort to delineate. MSG will utilize a hand auger to collect shallow soil samples in an effort to replicate the geology and depth encountered at SB-3. Note – soil descriptions were recorded on MSG standard soil boring description log sheets and therefore not included in this daily report.					
0915 MSG begins hand auger activities at SB-6.					
0930 SB-6 complete. MSG samples SB-6 (0'-1') at 0930. MSG begins hand auger activities at SB-7.					
0935 SB-7 complete. MSG samples SB-7 (0'-1') at 0935. MSG begins hand auger activities at SB-8.					
0940 SB-8 complete. MSG samples SB-8 (0'-1') at 0935. MSG begins hand auger activities at SB-9.					
0945 SB-9 complete. MSG samples SB-9 (0'-1') at 0935. MSG begins hand auger activities at SB-10.					
0950 SB-10 complete. MSG samples SB-10 (0'-1') at 0935. MSG begins hand auger activities at SB-11.					
0955 SB-11 complete. MSG samples SB-11 (0'-1') at 0935. MSG begins hand auger activities at SB-12.					
1000 SB-12 complete. MSG samples SB-12 (0'-1') at 0935. MSG begins hand auger activities at SB-13.					
1005 SB-13 complete. MSG samples SB-13 (0'-1') at 0935. MSG begins hand auger activities at SB-14.					
1010 SB-14 complete. MSG samples SB-14 (0'-1') at 0935. MSG begins hand auger activities at SB-15.					
1015 SB-15 complete. MSG samples SB-15 (0'-1') at 0935.					
1030 MSG offsite					
<b>Documents</b>					
	Yes	No		Yes	No
Photographs Taken	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Samples Collected	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Photo Log Attached	<input type="checkbox"/>	<input checked="" type="checkbox"/>	COC Attached	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			Boring/MW Logs Attached	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DAILY FIELD REPORT**

Client: City of Ann Arbor Report No.: 3

Project: Brokaw Limited Phase II Investigation Job No.: ANNA0026

Date: March 31, 2014	Day: Monday	Temp: 50°F (AM)	58° (PM)
MSG CQA Personnel: Ryan Montri		Cloud Cover: Clear (AM)	PC (PM)
MSG Hours On-Site: 6.00		Precip: 0 (AM)	0 (PM)
<b>Contractors Information</b>		Contractors:	
Contractor: MSG	No. Men and Type: Ryan Montri	Equipment Type: Hand Auger, MiniRae 3000 PID, Water Level Meter, Measuring Wheel	
Supervisor: Ryan Montri		Supervisor:	
<b>Summary of Work Performed</b>			
Supplemental Limited Phase II Investigation			
<b>Field Notes</b>			
1020 MSG onsite to perform Limited Supplemental Phase II Investigation activities associated with soil boring locations in and around the former building foundation located in the southeast corner of the Site that exceeded Part 201 Generic Residential Cleanup Criteria for direct contact (Lead). The City of Ann Arbor granted MSG access to the site. Upon arrival to the site, MSG assessed the area surrounding the former building foundation and set up a sampling grid to further delineate the extent of lead impacted soils. MSG placed lathe at each soil boring location (SB-3 and SB-6 through SB-25). Note – SB-3 and SB-6 through SB-15 were completed during prior investigations. MSG will utilize a hand auger to collect shallow soil samples in an effort to replicate the geology and depth encountered at SB-3 and SB-6 through SB-15 and collect samples at intervals directly below the shallow interval to vertically delineate the lead impacts. Note – soil descriptions were recorded on MSG standard soil boring description log sheets and therefore not included in this daily report.			
1040 MSG calibrates the MiniRae 3000 PID with 100 ppm isobutylene calibration gas. Calibrated to 100 ppm.			
1045 MSG begins hand auger activities at SB-16.			
1055 SB-16 complete. MSG samples SB-16 (0'-1') and (1'-2') at 1055.			
1100 MSG begins hand auger activities at SB-17.			
1110 SB-17 complete. MSG samples SB-17 (0'-1') and (1'-2') at 1110.			
1115 MSG begins hand auger activities at SB-18.			
1120 SB-18 complete. MSG samples SB-18 (0'-1') and (1'-2') at 1120.			
1130 MSG begins hand auger activities at SB-19.			
1140 SB-19 complete. MSG samples SB-19 (0'-1') and (1'-2') at 1140.			
1145 MSG begins hand auger activities at SB-20.			
1155 SB-20 complete. MSG samples SB-20 (0'-1') and (1'-2') at 1155.			
1200 MSG begins hand auger activities at SB-21.			
1210 SB-21 complete. MSG samples SB-21 (0'-1') and (1'-2') at 1210.			
1220 MSG begins hand auger activities at SB-22.			
1225 SB-22 complete. MSG samples SB-22 (0'-1') and (1'-2') at 1225.			
1230 MSG begins hand auger activities at SB-23.			
1240 SB-23 complete. MSG samples SB-23 (0'-1') and (1'-2') at 1240.			
1245 MSG begins hand auger activities at SB-24.			
1250 SB-24 complete. MSG samples SB-24 (0'-1') and (1'-2') at 1250.			
1255 MSG begins hand auger activities at SB-25.			
1310 SB-25 complete. MSG samples SB-25 (0'-1') and (1'-2') at 1310.			
1315 MSG blind advances to 1'-2' at SB-10.			
1320 MSG samples SB-10 (1'-2') at 1320.			
Note – Location of SB-8, which is within the former building foundation and approximately 6 feet bgs, is filled with frozen water and snow; therefore, samples to be collected from SB-8 at a depth of 1'-2' were not able to be completed. SB-3 was chosen as an alternative location to vertically delineate lead impacted soil.			
1330 MSG blind advances to 1'-2' at SB-3.			
1335 MSG samples SB-3 (1'-2') at 1335			
1400 MSG investigates the crock well. MSG utilized a water level meter to determine depth and if water is present. Upon investigation, it was determined that the crock well is dry and 30 feet in depth. The diameter of the crock well is 3'.			

1420 MSG investigates the onsite water well. Upon investigation, MSG determined that no well driller identification tags were present and was unable to open up the well to determine depth. The only portion of the well that was above grade consisted of an approximate 3" steel pipe that protruded out through a concrete slab.

1500 MSG offsite.

**Documents**

	Yes	No		Yes	No		Yes	No
Photographs Taken	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Samples Collected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Boring/MW Logs		
Photo Log Attached	<input type="checkbox"/>	<input checked="" type="checkbox"/>	COC Attached	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Attached	<input type="checkbox"/>	<input checked="" type="checkbox"/>

APPENDIX C  
SOIL BORING LOGS





CANTON  
DETROIT  
MONROE  
LANSING

MAUMEE  
COLUMBUS  
CLEVELAND  
TRAVERSE CITY

**BORING ID: SB-1**

PAGE 1 OF 1

The Mannik & Smith Group, Inc.  
2365 Haggerty Road, Canton, Michigan 48188  
ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 11/20/13 **COMPLETED** 11/20/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** Stained concrete by garage door  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
	HA 1	1.0		Dark brown coarse grained Gravelly SAND, dry.	0.0		
	HA 2	1.0		Dark brown coarse grained SAND, some Gravel and Clay, dry.	0.0		
	HA 3	1.0		Dark brown Sandy CLAY, some Gravel, dry.	0.0		
	HA 4	1.0		Dark brown Gravelly CLAY, dry.	0.0		
5	HA 5	1.0		Bottom of borehole at 5.0 feet.	0.0	X	Soil sample SB-1 (4'-5') collected at 0940.



CANTON  
DETROIT  
MONROE  
LANSING

MAUMEE  
COLUMBUS  
CLEVELAND  
TRAVERSE CITY

**BORING ID: SB-2**

PAGE 1 OF 1

The Mannik & Smith Group, Inc.  
2365 Haggerty Road, Canton, Michigan 48188  
ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 11/20/13 **COMPLETED** 11/20/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** Three (3) empty 5-gallon containers by shed  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
	HA 1	1.0		Dark gray to black Sandy CLAY, some Gravel, dry.	0.0		Soil sample SB-2 (4'-5') collected at 1030.
	HA 2	1.0		Brown to dark brown Sandy CLAY, some Gravel, dry.	0.0		
	HA 3	1.0		Brown Gravelly SAND, dry.	0.0		
	HA 4	1.0		Dark brown Sandy CLAY, some Gravel, dry.	0.0		
	HA 5	1.0		Dark brown Gravelly SAND, dry.	0.0	<input checked="" type="checkbox"/>	
5				Bottom of borehole at 5.0 feet.			



CANTON  
DETROIT  
MONROE  
LANSING

MAUMEE  
COLUMBUS  
CLEVELAND  
TRAVERSE CITY

**BORING ID: SB-3**

PAGE 1 OF 1

The Mannik & Smith Group, Inc.  
2365 Haggerty Road, Canton, Michigan 48188  
ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 11/20/13 **COMPLETED** 11/20/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** By demolished house  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
	HA 1	1.0		Black Clayey SAND, trace coal and wood, dry.	0.0	X	Soil sample SB-3 (0'-1') collected at 1115.
	HA 2	1.0		Brown to light brown Sandy CLAY, some Gravel, dry.	0.0		Soil sample SB-3 (0'-1') collected at 1335 on March 31, 2014.
	HA 3	1.0			0.0		
	HA 4	1.0			0.0		
	HA 5	1.0			0.0		
5				Dark gray Sandy CLAY, dry.	0.0		
				Bottom of borehole at 5.0 feet.			



CANTON  
DETROIT  
MONROE  
LANSING

MAUMEE  
COLUMBUS  
CLEVELAND  
TRAVERSE CITY

**BORING ID: SB-4**

PAGE 1 OF 1

The Mannik & Smith Group, Inc.  
2365 Haggerty Road, Canton, Michigan 48188  
ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 11/20/13 **COMPLETED** 11/20/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** Glass and steel surficial debris area  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
	HA 1	1.0		Dark brown to black SAND, trace Gravel, dry (TOPSOIL).	0.0		
	HA 2	1.0		Brown to light brown SAND, dry.	0.0		
	HA 3	1.0			0.0		
	HA 4	1.0			0.0		
	HA 5	1.0		Light brown coarse grained SAND, trace gravel, dry.	0.0		
5				Bottom of borehole at 5.0 feet.			Soil sample SB-4 (4'-5') collected at 1145.



CANTON  
DETROIT  
MONROE  
LANSING

MAUMEE  
COLUMBUS  
CLEVELAND  
TRAVERSE CITY

**BORING ID: SB-5**

PAGE 1 OF 1

The Mannik & Smith Group, Inc.  
2365 Haggerty Road, Canton, Michigan 48188  
ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 11/20/13 **COMPLETED** 11/20/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** Steel and tractor surficial debris area  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
	HA 1	1.0		Black Gravelly SAND, dry (TOPSOIL).	0.0		
	HA 2	1.0		Brown Gravelly SAND, dry.	0.0		
	HA 3	1.0		Brown SAND, some Clay and Gravel, dry.	0.0		
	HA 4	1.0		Brown SAND, some Clay and Gravel, dry.	0.0		
	HA 5	1.0		Brown SAND, some Clay and Gravel, dry.	0.0	X	Soil Sample SB-5 (4'-5') collect at 1220.
5				Bottom of borehole at 5.0 feet.			



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**BORING ID: SB-6**

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The Mannik & Smith Group, Inc.  
2365 Haggerty Road, Canton, Michigan 48188  
ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 12/13/13 **COMPLETED** 12/13/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
1	HA 1	1.0		Brown Clayey SAND; some Gravel and Roots; dry.	0.0		Soil sample SB-6 (0'-1') collected at 0930.
				Bottom of borehole at 1.0 feet.			



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**BORING ID: SB-7**

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2365 Haggerty Road, Canton, Michigan 48188  
ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw

**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI

**DATE STARTED** 12/13/13 **COMPLETED** 12/13/13 **BORING DIAMETER:** \_\_\_\_\_

**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A

**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A

**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered

**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
1	HA 1	1.0		Brown to light brown Clayey SAND; some Gravel; dry.	0.0		Soil sample SB-7 (0'-1') collected at 0935.
				Bottom of borehole at 1.0 feet.			



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**BORING ID: SB-8**

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 ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 12/13/13 **COMPLETED** 12/13/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0	HA 1	1.0		Black Clayey SAND; some Gravel; dry (TOPSOIL).	0.0		Soil sample SB-8 (0'-1') collected at 0940.
1				Bottom of borehole at 1.0 feet.			



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**BORING ID: SB-9**

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2365 Haggerty Road, Canton, Michigan 48188  
ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 12/13/13 **COMPLETED** 12/13/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
1	HA 1	1.0		Bronw to dark brown Clayey SAND; trace Gravel; dry.	0.0		Soil sample SB-9 (0'-1') collected at 0945.
				Bottom of borehole at 1.0 feet.			



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**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 12/13/13 **COMPLETED** 12/13/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0 to 1	HA 1	1.0		Dark gray to black Clayey SAND; some Gravel and roots; dry (TOPSOIL).	0.0		Soil sample SB-10 (0'-1') collected at 0950.
1 to 2.0				Gray Clayey SAND; some Gravel; moist. (Drilled on March 31, 2014).			Soil sample SB-10 (1'-2') collected at 1320 on March 31, 2014.
				Bottom of borehole at 1.0 feet.			



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**DATE STARTED** 12/13/13 **COMPLETED** 12/13/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
1	HA 1	1.0		Brown to dark brown Clayey SAND; trace Gravel; dry.	0.0		Soil sample SB-11 (0'-1') collected at 0955.
				Bottom of borehole at 1.0 feet.			



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**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 12/13/13 **COMPLETED** 12/13/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
1	HA 1	1.0		Black to brown Clayey SAND; some Gravel; dry.	0.0		Soil sample SB-12 (0'-1') collected at 1000.
				Bottom of borehole at 1.0 feet.			



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**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

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DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
1	HA 1	1.0		Brown to dark brown Clayey SAND; trace Gravel; dry.	0.0		Soil sample SB-13 (0'-1') collected at 1005.
				Bottom of borehole at 1.0 feet.			



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**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
1	HA 1	1.0		Dark brown to black Clayey SAND; dry (TOPSOIL).	0.0		Soil sample SB-14 (0'-1') collected at 1010.
				Bottom of borehole at 1.0 feet.			



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 ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 12/13/13 **COMPLETED** 12/13/13 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
1	HA 1	1.0		Brown to dark brown Clayey SAND; some Gavel; dry.	0.0		Soil sample SB-15 (0'-1') collected at 1015.
				Bottom of borehole at 1.0 feet.			



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**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw

**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI

**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_

**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A

**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A

**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered

**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0.5	HA 1	1.0		Black Clayey SAND; some Gravel, Roots; dry (TOPSOIL).	0.0		Soil sample SB-16 (0'-1') collected at 1055.
1.0				Light brown Clayey SAND; some Gravel; dry.	0.0		
1.5	HA 2	1.0			0.0		Soil sample SB-16 (1'-2') collected at 1055.
2.0				Bottom of borehole at 2.0 feet.			



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**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw

**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI

**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_

**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A

**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A

**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered

**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0.5	HA 1	1.0		Black Clayey SAND; some Gravel, Roots; dry (TOPSOIL).	0.0		Soil sample SB-17 (0'-1') collected at 1110.
1.0				Brown to dark brown Clayey SAND; some Gravel; dry.	0.0		
1.5	HA 2	1.0			0.0		Soil sample SB-17 (1'-2') collected at 1110.
2.0				Bottom of borehole at 2.0 feet.			



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**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0				Black Clayey SAND; trace Gravel; dry (TOPSOIL).			
0 - 1	HA 1	1.0			0.0		Soil sample SB-18 (0'-1') collected at 1120.
1 - 2	HA 2	1.0		Light gray to dark gray Clayey SAND; dry.	0.0		Soil sample SB-3 (1'-2') collected at 1120.
2				Bottom of borehole at 2.0 feet.			



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**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:52 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0	HA 1	1.0		Dark brown Clayey SAND; trace Gravel; moist.	0.0		Soil sample SB-19 (0'-1') collected at 1140.
1	HA 2	1.0		Brown coarse grained SAND; dry.	0.0		Soil sample SB-19 (1'-2') collected at 1140.
2				Bottom of borehole at 2.0 feet.			



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**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0				Black Clayey SAND; moist (TOPSOIL).			
0.0	HA 1	1.0			0.0		Soil sample SB-20 (0'-1') collected at 1155.
1.0				Brown Clayey SAND; trace Gravel; dry.			
1.0	HA 2	1.0			0.0		Soil sample SB-20 (1'-2') collected at 1155.
2.0				Bottom of borehole at 2.0 feet.			



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The Mannik & Smith Group, Inc.  
 2365 Haggerty Road, Canton, Michigan 48188  
 ph: 734-397-3100 fax: 734-397-3131

**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0				Light brown coarse grained SAND; dry.			
0.5	HA 1	1.0			0.0		Soil sample SB-21 (0'-1') collected at 1210.
1.0	HA 2	1.0			0.0		Soil sample SB-21 (1'-2') collected at 1210.
2.0				Bottom of borehole at 2.0 feet.			



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**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0	HA 1	1.0		Dark brown Clayey SAND; some Gravel; moist (TOPSOIL).	0.0	<input checked="" type="checkbox"/>	Soil sample SB-22 (0'-1') collected at 1225.
1	HA 2	1.0		Light brown coarse grained SAND; dry.	0.0	<input checked="" type="checkbox"/>	Soil sample SB-22 (1'-2') collected at 1225.
2				Bottom of borehole at 2.0 feet.			



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**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw  
**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI  
**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_  
**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A  
**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A  
**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered  
**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0	HA 1	1.0		Brown to dark brown Clayey SAND; some Gravel; moist (TOPSOIL).	0.0		Soil sample SB-23 (0'-1') collected at 1240.
1	HA 2	1.0		Brown coarse grained SAND; dry.	0.0		Soil sample SB-23 (1'-2') collected at 1240.
2				Bottom of borehole at 2.0 feet.			



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**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw

**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI

**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_

**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A

**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A

**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered

**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

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DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0	HA 1	1.0		Brown to dark brown Clayey SAND; some Gravel; moist becoming dry at 1'.	0.0		Soil sample SB-24 (0'-1') collected at 1250.
1	HA 2	1.0			0.0		Soil sample SB-24 (1'-2') collected at 1250.
2				Bottom of borehole at 2.0 feet.			



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**CLIENT** The City of Ann Arbor **PROJECT NAME** Brokaw

**PROJECT NUMBER** ANNA0026 **PROJECT LOCATION** 3013 West Huron River Drive Scio Township, MI

**DATE STARTED** 3/31/14 **COMPLETED** 3/31/14 **BORING DIAMETER:** \_\_\_\_\_

**DRILLING CONTRACTOR** MSG **SURVEY COORDINATES:** N/A

**DRILLING METHOD** Hand Auger **GROUND SURFACE ELEV.:** N/A

**LOGGED BY** REM **CHECKED BY** DJA  **GROUND WATER ENCOUNTERED DURING DRILLING:** Not Encountered

**NOTES** \_\_\_\_\_  **WATER LEVEL AFTER DRILLING:** N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 4/1/14 14:53 - W:\PROJECTS\PROJECTS A-E\ANNA0026\ADMINISTRATION\SUPPLEMENTAL LIMITED PHASE II AND RMS\SOIL BORING LOGS\ANNA0026.BORING LOGS.REM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0							
0	HA 1	1.0		Brown to dark brown Clayey SAND; some Gravel; dry.	0.0		Soil sample SB-25 (0'-1') collected at 1310.
1	HA 2	1.0		Brown to light brown Sandy CLAY; trace Gravel; dry.	0.0		Soil sample SB-25 (1'-2') collected at 1310.
2				Bottom of borehole at 2.0 feet.			

APPENDIX D

LABORATORY ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Friday, December 20, 2013

Fibertec Project Number: 59510  
Project Identification: Brokaw /ANNA0026  
Submittal Date: 12/04/2013

Mr. Walter Bolt  
Mannik & Smith Group, Inc. - Canton  
2365 Haggerty Road South  
Canton, MI 48188

Dear Mr. Bolt,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written in a cursive style.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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F: (231) 775-8584



**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-001**

Order: 59510  
 Page: 2 of 12  
 Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-6 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>1</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:30</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-001

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	50		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-001

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	3500000		µg/kg	2500	500	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-002**

Order: 59510  
Page: 3 of 12  
Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-7 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>2</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:35</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 59510-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>22</b>		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 59510-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>490000</b>		µg/kg	1000	100	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-003**

Order: 59510  
Page: 4 of 12  
Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-8 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>3</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:40</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-003

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	53		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-003

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	2800000		µg/kg	2500	500	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-004**

Order: 59510  
 Page: 5 of 12  
 Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-9 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>4</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:45</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-004

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	<b>20</b>		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-004

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	<b>580000</b>		µg/kg	1000	100	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-005**

Order: 59510  
Page: 6 of 12  
Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-10 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>5</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:50</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-005

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	<b>18</b>		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-005

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	<b>1100000</b>		µg/kg	2500	500	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-006**

Order: 59510  
 Page: 7 of 12  
 Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-11 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>6</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:55</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-006

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	<b>21</b>		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-006

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	<b>390000</b>		µg/kg	1000	100	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-007**

Order: 59510  
 Page: 8 of 12  
 Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-12 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>7</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>10:00</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-007

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	<b>29</b>		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-007

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	<b>1600000</b>		µg/kg	2500	500	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-008**

Order: 59510  
 Page: 9 of 12  
 Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-13 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>8</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>10:05</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-008

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	13		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-008

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	2000000		µg/kg	2500	500	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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 F: (231) 775-8584



**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-009**

Order: 59510  
 Page: 10 of 12  
 Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-14 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>9</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>10:10</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-009

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	15		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-009

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	1100000		µg/kg	1000	200	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59510**  
**Laboratory Sample Number: 59510-010**

Order: 59510  
 Page: 11 of 12  
 Date: 12/20/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-15 (0'-1')</b>	Chain of Custody: <b>107341</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>10</b>	Collect Date: <b>12/03/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>10:15</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59510-010

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	15		%	0.1	1.0	12/06/13	MC131206	12/10/13	MC131206	BMG

**Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59510-010

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	630000		µg/kg	1000	200	12/09/13	PT13L09C	12/10/13	T213L10A	JLH

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.
- B:** The analyte was detected in the associated method blank.
- E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J:** The concentration is an estimated value.
- M:** Modified Method
- U:** The analyte was not detected at or above the reporting limit.
- X:** Matrix Interference has resulted in a raised reporting limit or distorted result.
- W:** Results reported on a wet-weight basis.
- \***: Value reported is outside QA limits

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**Exception Summary:**

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Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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**Analytical Laboratory**  
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 Holt, MI 48842 Cadillac, MI 49601  
 Phone: 517 699 0345 Phone: 231 775 8368  
 Fax: 517 699 0388 Fax: 231 775 8584  
 email: lab@fibertec.us

**Industrial Hygiene Services, Inc.**  
 1914 Holloway Drive  
 Holt, MI 48842  
 Phone: 517 699 0345  
 Fax: 517 699 0382  
 email: asbestos@fibertec.us

**Geoprobe**  
 11766 E. Grand River  
 Brighton, MI 48116  
 Phone: 810 220 3300  
 Fax: 810 220 3311

Chain of Custody #  
**107341**  
 PAGE 1 of 1

Client Name: <i>The Mannik &amp; Smith Group</i>					MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS												Turnaround	Matrix Code		
Contact Person: <i>Walter Bolt &amp; Ryan Martin</i>								lead	X	X	X	X	X	X	X	X	X	X	X	X	24 hour RUSH (surcharge applies)	S Soil	GW Ground Water
Project Name/ Number: <i>BROKAW ANNA0026</i>																					48 hour RUSH (surcharge applies)	W Water	SW Surface Water
Purchase Order#																					72 hour RUSH (surcharge applies)	A Air	WW Waste Water
Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor														Other: Specify					
	<i>12/3/13</i>	<i>0830</i>		<i>SB-6 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>0835</i>		<i>SB-7 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>0840</i>		<i>SB-8 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>0845</i>		<i>SB-9 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>0850</i>		<i>SB-10 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>0855</i>		<i>SB-11 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>1000</i>		<i>SB-12 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>1005</i>		<i>SB-13 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>1010</i>		<i>SB-14 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
		<i>1015</i>		<i>SB-15 (0'-1')</i>	<i>S</i>	<i>N</i>	<i>X</i>																
Comments:																							
Relinquished By: <i>[Signature]</i>					Date/Time	Received By:																	
Relinquished By: <i>[Signature]</i>					<i>12/3/13 1400</i>	<i>MSG Fridge</i>																	
Relinquished By: <i>[Signature]</i>					<i>12/4/13 1150</i>	<i>[Signature]</i>					<i>12/4/13 11:50</i>												
Relinquished By: <i>[Signature]</i>					<i>12/4/13 3:43</i>	<i>[Signature]</i>					<i>[Signature]</i>												
LAB USE ONLY:																							
Fibertec project number																							
Laboratory Tracking:																							
Temperature at Receipt:																							

**RCV'D ON ICE**  
*3.5*

TERMS & CONDITIONS ON BACK

*59510*



Tuesday, April 08, 2014

Fibertec Project Number: 61178  
Project Identification: Brokaw /ANNA0026  
Submittal Date: 04/01/2014

Mr. Ryan Montri  
Mannik & Smith Group, Inc. - Canton  
2365 Haggerty Road South  
Canton, MI 48188

Dear Mr. Montri,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written in a cursive style.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-001**

Order: 61178  
Page: 2 of 14  
Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-16 (0-1)</b>	Chain of Custody: <b>116741</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>1</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>10:55</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-001	Matrix: Soil/Solid			
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	12		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-001	Matrix: Soil/Solid			
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	55000		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-003**

Order: 61178  
 Page: 3 of 14  
 Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-17 (0-1)</b>	Chain of Custody: <b>116741</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>3</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>11:10</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>13</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>95000</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-005**

Order: 61178  
Page: 4 of 14  
Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-18 (0-1)</b>	Chain of Custody: <b>116741</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>5</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>11:20</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-005		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>14</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-005		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>82000</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-007**

Order: 61178  
Page: 5 of 14  
Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-19 (0-1)</b>	Chain of Custody: <b>116741</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>7</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>11:40</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-007		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>14</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-007		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>23000</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-009**

Order: 61178  
 Page: 6 of 14  
 Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-20 (0-1)</b>	Chain of Custody: <b>116741</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>9</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>11:55</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-009		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>14</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-009		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>80000</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-011**

Order: 61178  
 Page: 7 of 14  
 Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-21 (0-1)</b>	Chain of Custody: <b>107359</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>11</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>12:10</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-011		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>9.2</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-011		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>4500</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-013**

Order: 61178  
Page: 8 of 14  
Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-22 (0-1)</b>	Chain of Custody: <b>107359</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>13</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>12:25</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-013		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	12		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-013		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	20000		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-015**

Order: 61178  
 Page: 9 of 14  
 Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-23 (0-1)</b>	Chain of Custody: <b>107359</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>15</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>12:40</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-015		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>12</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-015		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>69000</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-017**

Order: 61178  
Page: 10 of 14  
Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-24 (0-1)</b>	Chain of Custody: <b>107359</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>17</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>12:50</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-017		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>14</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-017		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>69000</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-019**

Order: 61178  
Page: 11 of 14  
Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-25 (0-1)</b>	Chain of Custody: <b>107359</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>19</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>13:10</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-019		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>16</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-019		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>96000</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-021**

Order: 61178  
 Page: 12 of 14  
 Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-10 (1-2)</b>	Chain of Custody: <b>107363</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>21</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>13:20</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-021		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>14</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-021		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>60000</b>		µg/kg	1000	20	04/07/14	PT14D07A	04/07/14	T214D07A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 61178**  
**Laboratory Sample Number: 61178-022**

Order: 61178  
Page: 13 of 14  
Date: 04/08/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-3 (1-2)</b>	Chain of Custody: <b>107363</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>22</b>	Collect Date: <b>03/31/14</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>13:35</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 61178-022		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	<b>14</b>		%	0.1	1.0	04/04/14	MC140404	04/07/14	MC140404	BMG

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 61178-022		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	<b>230000</b>		µg/kg	1000	40	04/07/14	PT14D07A	04/08/14	T214D08A	JLP

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.
- B:** The analyte was detected in the associated method blank.
- E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J:** The concentration is an estimated value.
- M:** Modified Method
- U:** The analyte was not detected at or above the reporting limit.
- X:** Matrix Interference has resulted in a raised reporting limit or distorted result.
- W:** Results reported on a wet-weight basis.
- \*:** Value reported is outside QA limits

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**Exception Summary:**

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Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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Monday, January 13, 2014

Fibertec Project Number: 59357 Supplemental  
Project Identification: Brokaw /ANNA0026  
Submittal Date: 11/22/2013

Mr. Walter Bolt  
Mannik & Smith Group, Inc. - Canton  
2365 Haggerty Road South  
Canton, MI 48188

Dear Mr. Bolt,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

TCLP (1311) extraction date is January 8, 2014.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written in a cursive style.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-003**

Order: 59357  
Page: 2 of 3  
Date: 01/13/14

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-3 (0'-1')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>3</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>TCLP Extract</b>	Collect Time: <b>11:15</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS (EPA 3005A-M/EPA 6020A)**

**Aliquot ID: 59357-003AA**

**Matrix: TCLP Extract**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Lead	U		mg/L	1.0	10	01/13/14	PT14A13A	01/13/14	T214A13A	JLP

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.
- B:** The analyte was detected in the associated method blank.
- E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J:** The concentration is an estimated value.
- M:** Modified Method
- U:** The analyte was not detected at or above the reporting limit.
- X:** Matrix Interference has resulted in a raised reporting limit or distorted result.
- W:** Results reported on a wet-weight basis.
- \*:** Value reported is outside QA limits

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**Exception Summary:**

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Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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## BULK SAMPLE ANALYTICAL REPORT

Fibertec IHS Project #34907-1  
NVLAP Accreditation #101510-0

Client Name: The Mannik & Smith Group  
 Project Name: BROKAW ANNA0026  
 Summary: 7 Submitted Bulk Samples, 7 Sample Layers Analyzed.

Date Sampled: 3/31/2014 Client P.O. #: N/A  
 Date Submitted: 4/2/2014 C.O.C. #: 116741, 107359, 107363  
 Date Analyzed: 4/4/2014

Fibertec Sample No.	Client I.D. No.	Description / Location	Asbestos Type	Non-Asbestos Containing Portion	Analyst
1	1	Brown granular material, SB-16 (0'-1').	NAD	Non-fibrous material 97% Cellulose fibers 3%	CBD
2	2	Brown granular material, SB-18 (0'-1').	NAD	Non-fibrous material 97% Cellulose fibers 3%	CBD
3	3	Brown granular material, SB-20 (0'-1').	NAD	Non-fibrous material 97% Cellulose fibers 3%	CBD
4	4	Brown granular material, SB-22 (0'-1').	NAD	Non-fibrous material 97% Cellulose fibers 3%	CBD
5	5	Brown granular material, SB-24 (0'-1').	NAD	Non-fibrous material 97% Cellulose fibers 3%	CBD
6	6	Brown granular material, SB-10 (1'-2').	NAD	Non-fibrous material 97% Cellulose fibers 3%	CBD
7	7	Brown granular material, SB-3 (1'-2').	NAD	Non-fibrous material 97% Cellulose fibers 3%	CBD

**Comments**

Bulk samples are analyzed using the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without the written approval of the laboratory. Individual sample layers are homogeneous, unless otherwise noted. Test items were received in acceptable condition. Revision 4.0 dated 12/8/2010.

If no asbestos was/were detected in the sample/samples the acronym NAD (no asbestos detected) will appear in the Asbestos Type column of the report.



Approved Signatory: \_\_\_\_\_

Date: 4/8/2014



January 15, 2014

Ms. Ginny Trocchio  
**City of Ann Arbor**  
100 North Fifth Avenue  
Ann Arbor, Washtenaw County, Michigan 48104

**Re: Pre-Demolition Asbestos, Lead-Based Paint, and Universal and Hazardous Materials Survey Report**

Dear Ms. Trocchio:

The Mannik and Smith Group (MSG) is pleased to present the City of Ann Arbor with the results of the surveys for asbestos containing building materials (ACBM), lead-based paint (LBP), and universal and hazardous materials, performed at 3013 West Huron River Drive, Ann Arbor, Washtenaw County, Michigan (hereinafter referred to as the "Site"). *Figure 1, Site Location Map*, depicts the site relative to nearby roads and major topographical features. *Figure 2, Site Schematic*, depicts the site and associated buildings.

## 1.0 PURPOSE AND SCOPE OF WORK

In order to identify, characterize, and plan for the hazardous materials that may be encountered during demolition of the abandoned residential building and associated outbuilding, MSG performed the following tasks on November 20, 2013:

- 1) Pre-demolition ACBM survey;
- 2) LBP survey; and
- 3) Universal and hazardous material survey.

The purpose of these surveys was to identify, quantify and document the location of suspect ACBM; identify the lead content of paint; and identify universal/hazardous waste, household chemicals, and chlorofluorocarbons (refrigerant) containing devices associated with the Site buildings.

## 2.0 METHODOLOGIES

### 1.1 ACBM Survey Procedures

The ACBM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between RACM that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition and renovation activities. The purpose of this survey is to determine if ACBM within these buildings are RACM and thus, subject to the NESHAP, and to comply with guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1001.

RACM is friable asbestos material, Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or Category II non-friable ACM (all other ACM products) that has a high

probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACBM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) in accordance with Environmental Protection Agency (EPA) guidelines and:

- identified and classified as friable or non-friable;
- assessed as being in good, fair or poor condition;
- assigned an EPA classification type (surface material, thermal system insulation or miscellaneous);
- classified as RACM or non-RACM
- sampled or identified as presumed asbestos containing material (PACM); and
- quantified in linear feet (LF) or square feet (SF).

MSG performed services associated with the asbestos inspection in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACBM survey included a systematic visual inspection of readily accessible areas within each building. Limited destructive sampling methods were used and suspect ACBM samples were collected by State of Michigan Accredited Asbestos Inspector, Michelle Henn (Accreditation Number A37261). Based on the quantity of each classification of material, MSG collected samples of each suspect ACBM in accordance with EPA guidelines.

## 2.2. LBP Survey Procedures

The LBP survey was conducted using an X-Ray Fluorescence (XRF) analyzer to sample each paint color and/or type and building component observed and reasonably accessible. The XRF uses a radioactive source to determine the amount of lead located within each surface tested. Prior to sampling, the building was broken down into separate room equivalents (i.e. functional areas). Each paint color and/or type and building component within the functional areas was sampled using the XRF analyzer by EPA certified lead inspector, Michelle Henn (Certification Number P-04662).

## 2.3. Universal and Hazardous Material Survey Procedures

Universal waste comes primarily from consumer products containing mercury, lead, cadmium and other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills. Examples of universal and hazardous waste can consist of mercury-containing equipment (i.e. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spend lead-acid batteries, lamps (i.e. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide), pesticides, polychlorinated biphenyls (PCB) containing transformers and light ballasts, chlorofluorohydrocarbons and chlorofluorocarbons containing devices, stored chemical and/or petroleum products, etc.

MSG identified and inventoried universal and hazardous wastes by a thorough visual reconnaissance in and around each building, observing visible containers and items. Unknown liquids or other materials were identified, described, and quantified to the extent possible; however, no equipment was opened and/or sampled as part of this survey.

## 3.0 SURVEY RESULTS

The following subsections include a discussion of the ACBM, LBP, and universal and hazardous materials surveys. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment A, Limitations*.

### 3.1 ACBM Survey Results

MSG identified eight (8) homogenous materials located within the abandoned residential building that were suspect as asbestos containing during the ACBM survey. Twenty-four (24) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACBM survey, one contained asbestos greater than 1%. The EPA defines asbestos containing materials (ACM) as materials containing greater than 1% asbestos. Below is a summary of suspect ACBM samples collected during this survey. No homogenous materials were identified within the associated outbuilding; therefore, no samples were collected.

**Summary of Suspect ACBM Samples**

Functional Area	Homogenous Material Group	Approximate Quantity (SF/LF)	Sample ID	Result (% Type)
Room 2	9x9 tan floor tile	250 SF	AS-1-1	No asbestos detected
			AS-1-2	
			AS-1-3	
Room 7	9x9 gray floor tile	200 SF	AS-2-1	5% Chrysotile
	9x9 gray floor tile mastic		AS-2-1	No asbestos detected
	9x9 gray floor tile		AS-2-2	Not analyzed
			AS-2-3	
Room 3	1x1 white ceiling tile	100 SF	AS-3-1	No asbestos detected
			AS-3-2	
			AS-3-3	
Room 5	Drywall	>1,000 SF	AS-4-1	No asbestos detected
Room 6			AS-4-2	
Room 10			AS-4-3	
Exterior	Window Caulk	150 LF	AS-5-1	No asbestos detected
			AS-5-2	
			AS-5-3	

Functional Area	Homogenous Material Group	Approximate Quantity (SF/LF)	Sample ID	Result (% Type)
Room 10	2x4 ceiling tile	400 SF	AS-6-1	No asbestos detected
			AS-6-2	
			AS-6-3	
Roof	Asphalt shingle	1,000 SF	AS-7-1	No asbestos detected
			AS-7-2	
			AS-7-3	
Roof	Roof felt	1,000 SF	AS-8-1	No asbestos detected
			AS-8-2	
			AS-8-3	

Functional areas and ACBM sample locations are depicted on *Figure 3, Abandoned Residential Building and Associated Outbuilding Asbestos Sample Locations*. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical report including chain of custody is attached in *Attachment B, Analytical Report and Chain of Custody*.

### 3.2 LBP Survey Results

The LBP survey is designed to identify the lead content of the paint within the Site building(s). At the time of this reports presentation, Housing and Urban Development (HUD) defines LBP as paint with an average concentration of 1.0 mg/cm<sup>2</sup>, or greater using the XRF technology. The Consumer Product Safety Commission (CPSC) considers paint containing 0.06% lead to be "lead free". Ultimately, OSHA regulates paints having any level of lead.

Based on this survey, lead containing paint was not identified within the functional areas. Functional areas are depicted on *Figure 2*. Test results for this building can be found in *Table 2, Paint Sample Results (XRF Method)*.

### 3.3 Universal and Hazardous Waste Survey Results

Universal and/or hazardous waste was identified in each of the site buildings and is summarized in *Table 3, Universal and Hazardous Waste Inventory*.

## 4.0 CONCLUSIONS

Based on this pre-demolition asbestos survey; sampled materials in the abandoned residential building were found to contain greater than 1% asbestos which will require abatement by an accredited asbestos worker prior to demolition activities. Notification according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, for renovation and demolition projects should be followed. Notification of demolition/renovation should be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) prior to demolition or renovation. A copy of a notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form should be completed by the contractor who completes the demolition. Prior to beginning a demolition or renovation project, the contractor must make the proper notifications to the Michigan Department of Licensing and Regulatory Affairs (LARA) and MDEQ and complete pre-demolition abatement activities.

ACBM containing greater than 1% asbestos is summarized below:

**Summary of Asbestos-Containing Materials**

Functional Area	Homogenous Material Group	Approximate Quantity (SF/LF)	Sample ID	Condition	Type	Result (% Type)
Room 7	9x9 gray floor tile	200 SF	AS-2-1	Good	Non-Friable	5% Chrysotile

Proven demolition methodologies and/or use of respirator protection should be utilized to prevent unacceptable worker exposures during demolition activities. The ACBM shall be disposed of in accordance with Parts 111 or 115 of Michigan Public Act 451 of 1994, as amended.

Hazardous and universal wastes identified in the buildings which require pre-demolition removal and disposal is listed in Table 2. The universal and/or hazardous materials should be properly characterized, as necessary, and disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

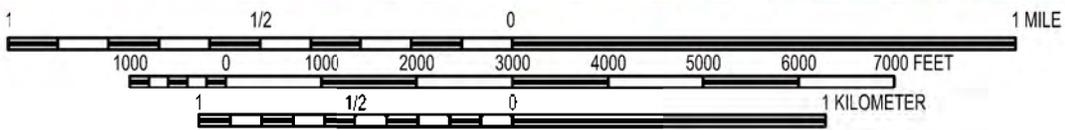
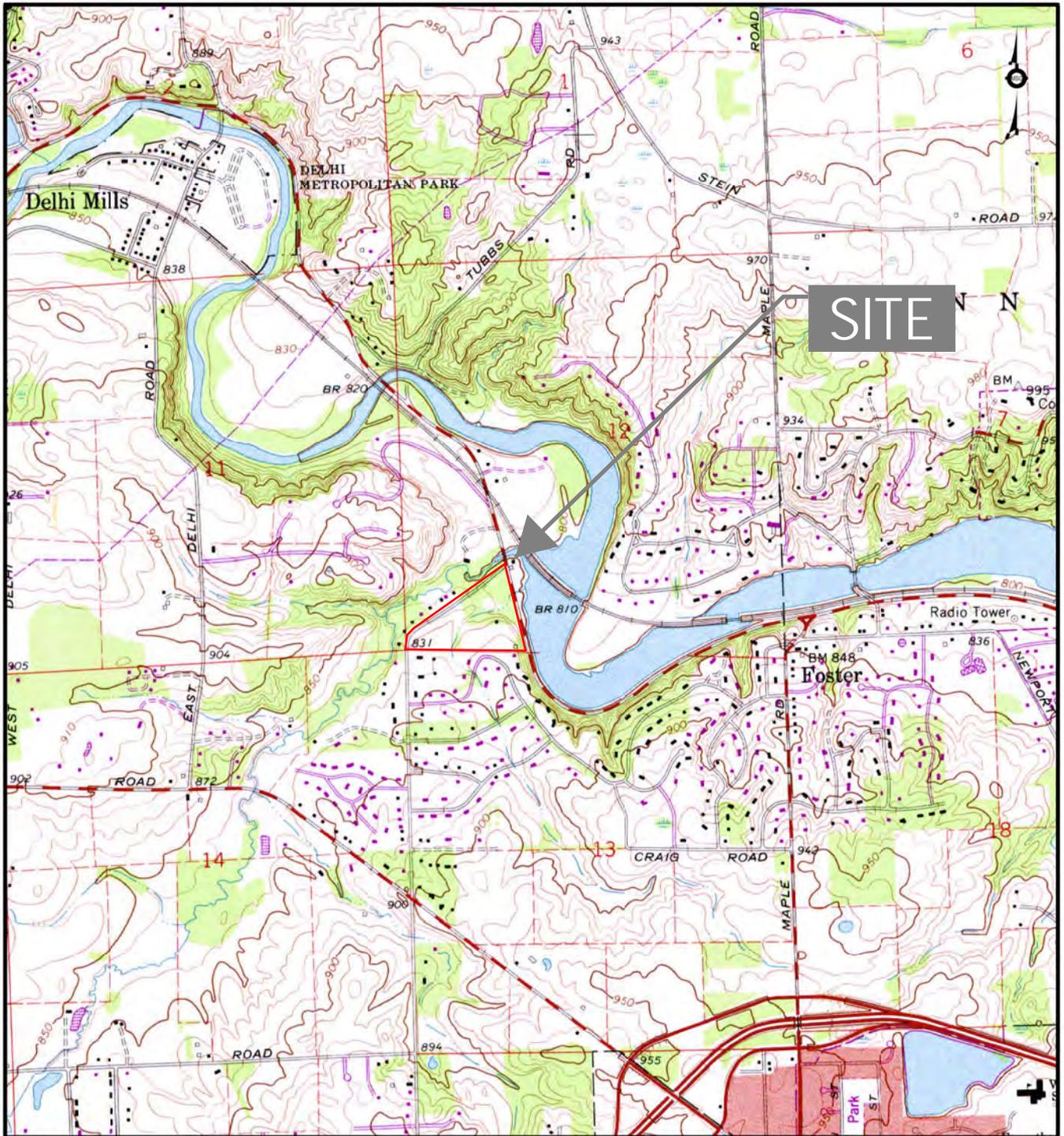
  
Thomas P. Cok, CPG  
Group Manager

  
Ryan E. Monri  
Senior Geologist

Attachments

FIGURES





CONTOUR INTERVAL 10 FEET  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

— Approximate Site Boundary



**FIGURE 1**  
**SITE LOCATION MAP**

PARCEL TAX IDENTIFICATION NUMBER H-08-012-360-027  
 3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO ANNA0026
------------------	-----------------	--------------------	------------------------

1/8/2014 2:26:47 PM  
W:\Projects\Projects A-E\ANNA0026\CAD\BEAVANNA0026\_Figure 2\_Site Schematic Map.dgn



**Mannik Smith GROUP**  
www.MannikSmithGroup.com  
TECHNICAL SKILL.  
CREATIVE SPIRIT.

FIGURE 2  
SITE SCHEMATIC MAP

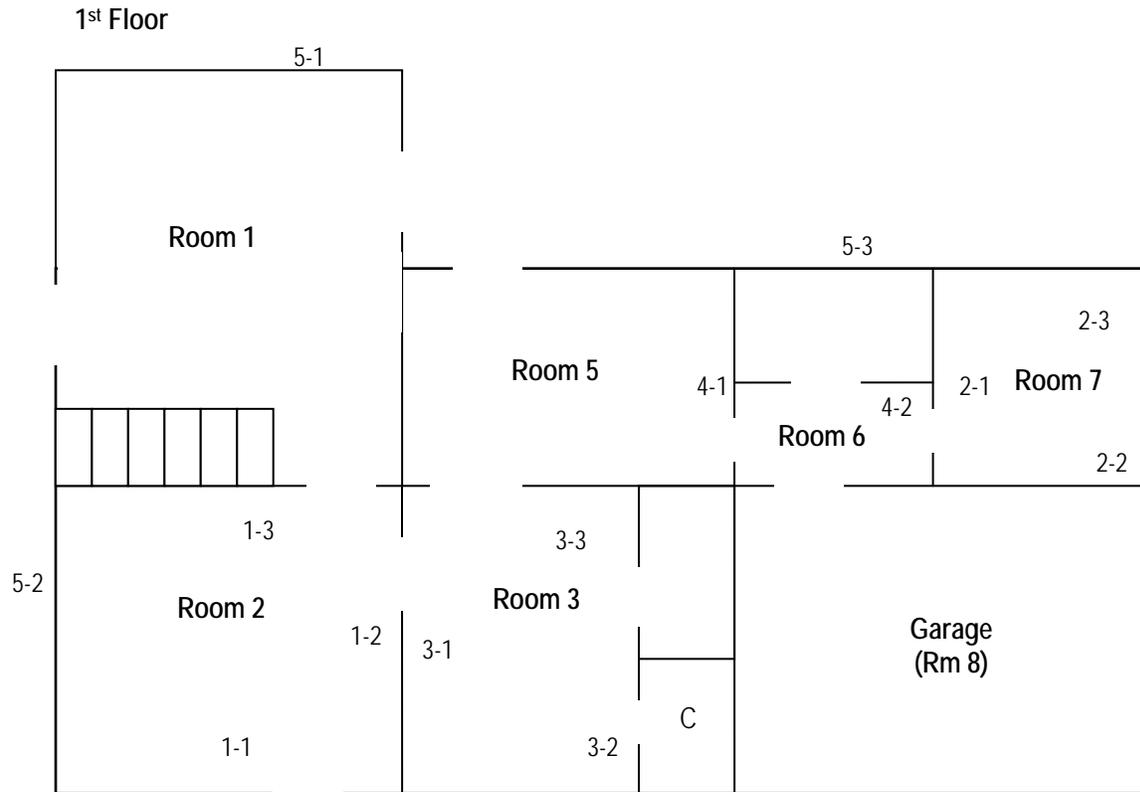
PARCEL TAX IDENTIFICATION NUMBER H-08-012-300-027  
3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO. ANNA0026
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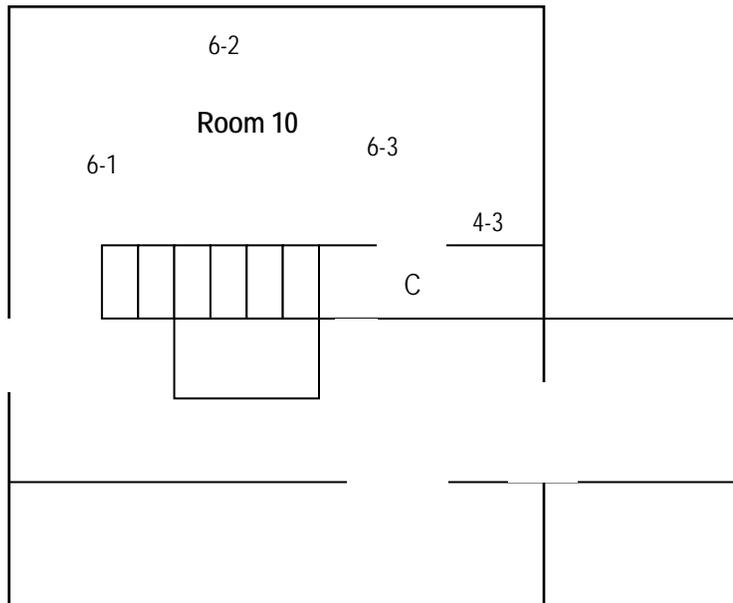
Figure 3, Abandoned Residential Building and Associated Outbuilding Asbestos Sample Locations

Address: 3013 West Huron River Drive, Ann Arbor, MI Date: November 20, 2013

Drawing not to scale



Basement



Roof Samples

7-1, 7-2, 7-3  
8-1, 8-2, 8-3

1-1 = Asbestos Sample

TABLES





Table 1, Asbestos Sampling Results  
 3013 West Huron River Drive  
 Ann Arbor, Washtenaw County, Michigan

<b>Client:</b>				City of Ann Arbor							
<b>Survey Location:</b>				3013 West Huron River Drive, Ann Arbor, Washtenaw County, Michigan							
<b>Survey Date:</b>				11/20/2013							
<b>Inspector:</b>				Michelle Henn	<b>Accreditation #</b>	A37261			<b>Job #</b>	ANNA0026	
Functional Area	Floor	Sample Identification	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	NESHAP Category	RACM	Asbestos Type and Percent	Approximate Quantity (LF/SF)	Require Pre-Demolition Removal
Room 2	1	AS-1-1, AS-1-2, AS-1-3	9x9 tan floor tile	NA	Good	NA	NA	NA	No Asbestos Detected	250 SF	NA
Room 7	1	AS-2-1, AS-2-2, AS-2-3	9x9 gray floor tile	Non Friable	Good	Misc.	2	Yes	5% Chrysotile	200 SF	Yes
		AS-2-1, AS-2-2, AS-2-3	9x9 gray floor tile mastic	NA	Good	NA	NA	NA	No Asbestos Detected		NA
Room 3	1	AS-3-1, AS-3-2, AS-3-3	1x1 white ceiling tile	NA	Good	NA	NA	NA	No Asbestos Detected	100 SF	NA
Room 5	1	AS-4-1	Drywall	NA	Good	NA	NA	NA	No Asbestos Detected	>1,000 SF	NA
Room 6	1	AS-4-2	Drywall	NA	Good	NA	NA	NA	No Asbestos Detected		NA
Room 10	Basement	AS-4-3	Drywall	NA	Good	NA	NA	NA	No Asbestos Detected		NA
Exterior Windows	Exterior	AS-5-1, AS-5-2, AS-5-3	Window Caulk	NA	Good	NA	NA	NA	No Asbestos Detected	150 LF	NA
Room 10	Basement	AS-6-1, AS-6-2, AS-6-3	2x4 ceiling tile	NA	Good	NA	NA	NA	No Asbestos Detected	400 SF	NA
Exterior Roof	Roof	AS-7-1, AS-7-2, AS-7-3	Asphalt shingle	NA	Good	NA	NA	NA	No Asbestos Detected	1,000 SF	NA
Exterior Roof	Roof	AS-8-1, AS-8-2, AS-8-3	Roof felt	NA	Good	NA	NA	NA	No Asbestos Detected	1,000 SF	NA



Table 2  
Paint Sample Results (XRF Method)

Table 2  
Paint Sample Results (XRF Method)

<b>Client:</b>		City of Ann Arbor								
<b>Survey Location:</b>		3013 West Huron River Drive, Ann Arbor, Washtenaw County, Michigan								
<b>Survey Date:</b>		11/20/2013								
<b>Inspector:</b>		Michelle Henn			<b>License #</b>	P-04662			<b>Job #</b>	ANNA0026
<b>Sample #</b>	<b>Floor</b>	<b>Wall / Side</b>	<b>Room and #</b>	<b>Component</b>	<b>Substrate</b>	<b>Visual Condition</b>	<b>Color</b>	<b>Note</b>	<b>Depth Index</b>	<b>Results (mg/cm<sup>2</sup>)</b>
1										4.12
2			CALIBRATE						1.04	0.90
3			CALIBRATE						1.08	1.00
4			CALIBRATE						1.00	0.80
5	First	A	2	Wall	Drywall	INTACT	Blue		1.17	0.04
6	First	B	2	Wall	Drywall	INTACT	Blue		1.01	0.04
7	First	C	2	Wall	Drywall	INTACT	White		1.00	0.02
8	First	D	2	Wall	Drywall	INTACT	White		2.73	0.05
9	First	Ceiling	2	Ceiling	Drywall	INTACT	White		1.85	0.05
10	First	A	3	Wall	Drywall	INTACT	White		1.00	0.00
11	First	B	3	Wall	Drywall	INTACT	White		1.00	0.00
12	First	C	3	Wall	Drywall	INTACT	White		3.96	0.01
13	First	D	3	Wall	Drywall	INTACT	White		4.15	0.04
14	First	A	4	Wall	Drywall	INTACT	White		1.18	0.06
15	First	B	4	Wall	Drywall	INTACT	White		1.41	0.06
16	First	A	5	Wall	Drywall	INTACT	White		2.03	0.08
17	First	B	5	Wall	Drywall	INTACT	White		2.29	0.10
18	First	C	5	Wall	Drywall	INTACT	White		1.89	0.09
19	First	D	5	Wall	Drywall	INTACT	White		1.86	0.08
20	First	D	5	Door Casing	Wood	INTACT	White		1.00	0.03
21	First	A	6	Wall	Drywall	INTACT	White		1.35	0.08
22	First	B	6	Wall	Drywall	INTACT	White		1.21	0.07
23	First	C	6	Wall	Drywall	INTACT	White		1.21	0.06
24	First	D	6	Wall	Drywall	INTACT	White		1.00	0.04
25	First	Ceiling	6	Ceiling	Drywall	INTACT	White		1.00	0.05
26	First	A	7	Wall	Drywall	DETERIORATED	White		1.82	0.02
27	First	B	7	Wall	Drywall	INTACT	White		1.81	0.04



Table 2  
Paint Sample Results (XRF Method)

Table 2  
Paint Sample Results (XRF Method)

<b>Client:</b>		City of Ann Arbor								
<b>Survey Location:</b>		3013 West Huron River Drive, Ann Arbor, Washtenaw County, Michigan								
<b>Survey Date:</b>		11/20/2013								
<b>Inspector:</b>		Michelle Henn			<b>License #</b>	P-04662			<b>Job #</b>	ANNA0026
<b>Sample #</b>	<b>Floor</b>	<b>Wall / Side</b>	<b>Room and #</b>	<b>Component</b>	<b>Substrate</b>	<b>Visual Condition</b>	<b>Color</b>	<b>Note</b>	<b>Depth Index</b>	<b>Results (mg/cm<sup>2</sup>)</b>
28	First	C	7	Wall	Drywall	INTACT	White		3.53	0.07
29	First	D	7	Wall	Drywall	INTACT	White		1.00	0.00
30	First	Ceiling	7	Ceiling	Drywall	INTACT	White		1.08	0.02
31	First	A	8	Wall	Drywall	INTACT	White		1.00	0.00
32	First	C	8	Wall	Drywall	INTACT	White		1.00	0.00
33	First	C	9	Wall	Drywall	INTACT	White		1.00	0.00
34	First	Ceiling	9	Wall	Drywall	INTACT	White		1.00	0.00
35	First	D	9	Wall	Drywall	INTACT	White		4.81	0.02
36	First	D	9	Stair Stringer	Wood	INTACT	Tan		1.00	0.01
37	First	Floor	9	Stair Tread	Wood	INTACT	Tan		1.19	0.04
38	First	B	11	Wall	Drywall	INTACT	White		1.92	0.03
39	Basement	C	10	Wall	Drywall	INTACT	White		2.47	0.04
40	Basement	Ceiling	10	Wall	Drywall	INTACT	White		2.61	0.09
44	First	A	Exterior House	Wall	Cinder Block	DETERIORATED	White		1.00	0.00
45	First	B	Exterior House	Wall	Cinder Block	INTACT	White		1.89	0.01
46	First	B	Exterior House	Ext. Soffit	Wood	DETERIORATED	White		1.68	0.40
47	First	C	Exterior House	Wall	Cinder Block	INTACT	White		1.00	0.00
48	First	D	Exterior House	Wall	Cinder Block	INTACT	White		3.39	0.01
41			CALIBRATE						1.08	0.90
42			CALIBRATE						1.07	1.00
43			CALIBRATE						1.05	0.90



Table 3, Universal and Hazardous Waste Inventory  
 3013 West Huron River Drive  
 Ann Arbor, Washtenaw County, Michigan

Table 3  
 Universal and Hazardous Waste Inventory

Location	Type of Waste	Approximate Quantity
Room 2 & 6	Mercury Thermostat	2
Garage	Fuel Oil Tank	275-gallons
Garage	Propane Cylinders	14
Garage	Spray Paint	5 cans
Garage	Household Cleaners	12 Bottles
Garage	Stamford Care Coat (fabric water repellent)	1 can
Garage & Shed	Air Conditioner Collant Tanks	4
Garage & Basement	Paint	30 cans
Basement	Television	2
Basement	Microwave	1
Basement	Oil and Fuel Oil	Three 55-gallon Drums
Basement	Liquid Detergent	5-gallon Bottle
Basement	High Gloss Metal Interlock Floor Finish	5-gallon Bottle
Shed & Yard	Oil Cans	10
Exterior	Refridgerator	1
Exterior	Large Propane Cylinder	1

ATTACHMENT A  
LIMITATIONS





## REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763 and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This Regulated Materials Survey (RMS) and related documentation are site-specific, which means they pertain to the environmental conditions of the site surveyed.

MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, or require specialized equipment to access are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) cannot be viewed. MSG shall not be responsible for identifying all ACBM or other hazardous materials located in inaccessible locations, including but not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined space, unsafe area, or otherwise not readily identifiable. Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM is reasonably thought to be present and sampling can be conducted in a safe manner. If material is found during the course of demolition that is not listed in this report, the material should be assumed as asbestos-containing or hazardous until it can be sampled and analyzed at an accredited individual and laboratory.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown contamination. This risk may be reduced by more extensive exploration on the site. Even with additional exploration, it is not possible to completely eliminate the risk of discovering contamination on site. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing building materials (ACBM). This report does not have required components to serve as an Asbestos Project Design document or an Asbestos Abatement Work Plan; therefore, should not be utilized as an asbestos abatement project specification document. The results, findings, conclusions, and recommendations expressed in this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. ACBM quantities have been conservatively estimated and sampling locations have been described representatively; however, should be field-verified by contractors bidding on or prior to abatement work.



ATTACHMENT B  
ANALYTICAL REPORT AND CHAIN OF CUSTODY





# Certificate of Laboratory Analysis

## Test Method, Polarized Light Microscopy (PLM)

Project # ANNA0026

**Report To:**

Ms. Michelle Henn  
Mannik & Smith Group  
2365 Haggerty Rd. S  
Canton, M 48188

ARI Report # 13-48906  
Date Collected: 11/20/13  
Date Received: 11/21/13  
Date Analyzed: 11/27/13  
Date Reported: 11/27/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 01 Cust. #: A-1-1 Material: 9"x9" Tan Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Other - 100%
Lab ID #: 48906 - 02 Cust. #: A-1-2 Material: 9"x9" Tan Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Other - 100%
Lab ID #: 48906 - 03 Cust. #: A-1-3 Material: 9"x9" Tan Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

# Certificate of Laboratory Analysis

## Test Method, Polarized Light Microscopy (PLM)



Project # ANNA0026

**Report To:**

Ms. Michelle Henn  
 Mannik & Smith Group  
 2365 Haggerty Rd. S  
 Canton, M 48188

ARI Report # 13-48906  
 Date Collected: 11/20/13  
 Date Received: 11/21/13  
 Date Analyzed: 11/27/13  
 Date Reported: 11/27/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 04 Cust. #: A-2-1 Material: 9"x9" Grey Floor Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 2	Asbestos Present: <b>YES</b> Chrysotile - 5%	Other - 95%
Lab ID #: 48906 - 04a Cust. #: A-2-1 Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: <b>NO</b> No Asbestos Observed	Other - 100%
Lab ID #: 48906 - 05 Cust. #: A-2-2 Material: 9"x9" Grey Floor Tile Location: Appearance: Layer: of	Asbestos Present:  NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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 Date Analyzed: 11/27/13  
 Date Reported: 11/27/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 06 Cust. #: A-2-3 Material: 9"x9" Grey Floor Tile Location: Appearance: Layer: of	Asbestos Present:  NOT ANALYZED	
Lab ID #: 48906 - 07 Cust. #: A-3-1 Material: 1'x1' White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 48906 - 08 Cust. #: A-3-2 Material: 1'x1' White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 90% Other - 10%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 09 Cust. #: A-3-3 Material: 1'x1' White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 48906 - 10 Cust. #: A-4-1 Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48906 - 11 Cust. #: A-4-2 Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 11/20/13  
Date Received: 11/21/13  
Date Analyzed: 11/27/13  
Date Reported: 11/27/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 12 Cust. #: A-4-3 Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48906 - 13 Cust. #: A-5-1 Material: Window Caulk Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Other - 100%
Lab ID #: 48906 - 14 Cust. #: A-5-2 Material: Window Caulk Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 13-48906  
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 Date Received: 11/21/13  
 Date Analyzed: 11/27/13  
 Date Reported: 11/27/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 15 Cust. #: A-5-3 Material: Window Caulk Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Other - 100%
Lab ID #: 48906 - 16 Cust. #: A-6-1 Material: 2'x4' Ceiling Tile Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 48906 - 17 Cust. #: A-6-2 Material: 2'x4' Ceiling Tile Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 90% Other - 10%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

# Certificate of Laboratory Analysis

## Test Method, Polarized Light Microscopy (PLM)



Project # ANNA0026

**Report To:**

Ms. Michelle Henn  
Mannik & Smith Group  
2365 Haggerty Rd. S  
Canton, M 48188

ARI Report # 13-48906  
Date Collected: 11/20/13  
Date Received: 11/21/13  
Date Analyzed: 11/27/13  
Date Reported: 11/27/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 18 Cust. #: A-6-3 Material: 2'x4' Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 48906 - 19 Cust. #: A-7-1 Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 48906 - 20 Cust. #: A-7-2 Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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ARI Report # 13-48906  
 Date Collected: 11/20/13  
 Date Received: 11/21/13  
 Date Analyzed: 11/27/13  
 Date Reported: 11/27/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 21 Cust. #: A-7-3 Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 48906 - 22 Cust. #: A-8-1 Material: Roof Felt Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 48906 - 23 Cust. #: A-8-2 Material: Roof Felt Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 13-48906  
 Date Collected: 11/20/13  
 Date Received: 11/21/13  
 Date Analyzed: 11/27/13  
 Date Reported: 11/27/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48906 - 24 Cust. #: A-8-3 Material: Roof Felt Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: <b>NO</b> No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX #

**48906****APEX Research, Inc.**1054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991.  
Web Site: <http://apexresearch-inc.com>. Email: [apexresearch@charterinternet.com](mailto:apexresearch@charterinternet.com)
 Client Name: Mannik + Smith Group  
 Address: 2365 S. Haggerty  
 City, St., Zip: Canton MI 48188  
 Phone: 734-397-3100 Fax: 734-397-3131

 Date of Survey: 11/20/13  
 Project: \_\_\_\_\_  
 Project # ANNA0026  
 Contact Person: Michelle Henn
**Turn Around Times: (Circle One)**

Rush 1 Day

2 Day 3 Day

< 10% then Point Count **(TTP) 5 Day TAT**  
(Test Till Positive)
 \*\*\*Terms and conditions on the other side.  
 Asbestos: Bulk:  Wipe \_\_\_\_\_ Point Count \_\_\_\_\_ PCM \_\_\_\_\_  
 Lead: Bulk \_\_\_\_\_ Wipe \_\_\_\_\_ Air \_\_\_\_\_ Paint \_\_\_\_\_ Soil \_\_\_\_\_  
 Mold: Bulk \_\_\_\_\_ Tape \_\_\_\_\_ BioSIS \_\_\_\_\_ Other \_\_\_\_\_ Viable \_\_\_\_\_  
 TEM: Bulk/NOP \_\_\_\_\_ AHERA \_\_\_\_\_ EPA Level II \_\_\_\_\_ Other \_\_\_\_\_

Lab ID	Client ID #	Material/Location	Volume	Area	Results
1	A-1-1	9x9 tan Floor Tile			
2	A-1-2	" " "			
3	A-1-3	" " "			
4	A-2-1	9x9 Gray Floor Tile			
5	A-2-2	" " "			
6	A-2-3	" " "			
7	A-3-1	1x1 white Ceiling Tile			
8	A-3-2	" " "			
9	A-3-3	" " "			
10	A-4-1	Dry wall			
11	A-4-2	Dry wall			

Relinquished By: Michelle Henn Received By: \_\_\_\_\_Date: 11/20/13

Date: \_\_\_\_\_

Revision Date: December/2006

Relinquished By: NOV 21 2013Date: \_\_\_\_\_  
APEX RESEARCH

Relinquished By: \_\_\_\_\_

Date: \_\_\_\_\_

# APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991.  
 Web Site: <http://apexresearch-inc.com>. Email: [apexresearch@charterinternet.com](mailto:apexresearch@charterinternet.com)



Client Name: Mannik + Smith Group  
 Address: 2365 S. Haggerty  
 City, St., Zip: Canton MI 48188  
 Phone: 734-397-3100 Fax: 734-397-3131

Date of Survey: 11/20/13  
 Project: \_\_\_\_\_  
 Project # ANNA0026  
 Contact Person: Michelle Henry

## Turn Around Times: (Circle One)

Rush \_\_\_\_\_ 1 Day \_\_\_\_\_  
 2 Day \_\_\_\_\_ 3 Day 5 Day  
 < 10% then Point Count TTP Yes  
 (Test Till Positive)

\*\*\*Terms and conditions on the other side.

Asbestos: Bulk:  Wipe \_\_\_\_\_ Point Count \_\_\_\_\_ PCM \_\_\_\_\_  
 Lead: Bulk \_\_\_\_\_ Wipe \_\_\_\_\_ Air \_\_\_\_\_ Paint \_\_\_\_\_ Soil \_\_\_\_\_  
 Mold: Bulk \_\_\_\_\_ Tape \_\_\_\_\_ BioSIS \_\_\_\_\_ Other \_\_\_\_\_ Viable \_\_\_\_\_  
 TEM: Bulk/NOP \_\_\_\_\_ AHERA \_\_\_\_\_ EPA Level II \_\_\_\_\_ Other \_\_\_\_\_

48906

Lab ID	Client ID #	Material/Location	Volume	Area	Results
12	A-4-3	Drywall			
13	A-5-1	Window Caulk			
14	A-5-2	" "			
15	A-5-3	" "			
16	A-6-1	2x4 Ceiling Tile			
17	A-6-2	" " "			
18	A-6-3	" " "			
19	A-7-1	Asphalt Shingle			
20	A-7-2	" "			
21	A-7-3	" "			
22	A-8-1	Roof Felt			

RECEIVED

Relinquished By: Michelle Henry Received By: \_\_\_\_\_  
 Date: 11/20/13 Date: \_\_\_\_\_

Relinquished By: 21 2013  
 Date: \_\_\_\_\_

Relinquished By: \_\_\_\_\_  
 Date: \_\_\_\_\_

# APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991.  
 Web Site: <http://apexresearch-inc.com>. Email: [apexresearch@charterinternet.com](mailto:apexresearch@charterinternet.com)



Client Name: Mannik & Smith Group Date of Survey: 11/20/13  
 Address: 2365 S. Haggerty Project: \_\_\_\_\_  
 City, St., Zip: Canton, MI 48188 Project # ANNA0026  
 Phone: 734-397-3100 Fax: 734-397-3131 Contact Person: Michelle Henn

## Turn Around Times: (Circle One)

Rush \_\_\_\_\_  
 1 Day \_\_\_\_\_  
 2 Day \_\_\_\_\_  
 3 Day 5 Day  
 < 10% then Point Count TTP Yes  
(Test Till Positive)

48906

\*\*\*Terms and conditions on the other side.

Asbestos: Bulk: X Wipe \_\_\_\_\_ Point Count \_\_\_\_\_ PCM \_\_\_\_\_  
 Lead: Bulk \_\_\_\_\_ Wipe \_\_\_\_\_ Air \_\_\_\_\_ Paint \_\_\_\_\_ Soil \_\_\_\_\_  
 Mold: Bulk \_\_\_\_\_ Tape \_\_\_\_\_ BioSIS \_\_\_\_\_ Other \_\_\_\_\_ Viable \_\_\_\_\_  
 TEM: Bulk/NOP \_\_\_\_\_ AHERA \_\_\_\_\_ EPA Level II \_\_\_\_\_ Other \_\_\_\_\_

Lab ID	Client ID #	Material/Location	Volume	Area	Results
23	A-8-2	Roof Felt			
24	A-8-3	" "			

RECEIVED

Relinquished By: Michelle Henn Received By: \_\_\_\_\_  
 Date: 11/20/13 Date: \_\_\_\_\_

Relinquished By: NOV 21 2013 Relinquished By: \_\_\_\_\_  
 Date: \_\_\_\_\_ Date: \_\_\_\_\_

Revision Date: December/2006

ATTACHMENT C  
NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



# NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
(MDEQ) AIR QUALITY DIVISION  
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND  
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,  
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

### DEQ/LARA USE ONLY

Postmark Date \_\_\_\_/\_\_\_\_/\_\_\_\_ Rec'd Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Emergency Date \_\_\_\_/\_\_\_\_/\_\_\_\_ Valid No. \_\_\_\_\_

OK  Send Def Ltr. Date of Def Ltr. \_\_\_\_/\_\_\_\_/\_\_\_\_

FOLLOW UP \_\_\_\_/\_\_\_\_/\_\_\_\_ Spoke w/ \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Notification No. \_\_\_\_\_ Trans No. \_\_\_\_\_

### Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: \_\_\_\_\_ x 0.01 = \_\_\_\_\_

Type of Contractor: \_\_\_\_\_ License No.: \_\_\_\_\_

Licensing Authority: \_\_\_\_\_

### 1. NOTIFICATION:

Date of Notification: \_\_\_\_\_

Date of Revision(s): \_\_\_\_\_

Notification Type:  Original  Revised  Canceled  Annual

#### Mark appropriate boxes: (both DEQ and LARA may apply):

#### DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

Planned Renovation – 10 **working** days notice

Emergency Renovation

Scheduled Demolition – 10 **working** days notice

Intentional Burn – 10 **working** days notice

Ordered Demolition

#### LARA (MIOSHA) [Will not accept annual notifications]

Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice

Emergency Renovation/Encapsulation

### 2. PROJECT SCHEDULE:

**START DATE** **END DATE**

\* Renovation \_\_\_\_\_

+Asb. Removal \_\_\_\_\_

+Demolition: \_\_\_\_\_

Encapsulation: \_\_\_\_\_

**Work Schedule:** Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

**Days of the Week** **Work Hours**

Asb. Removal: \_\_\_\_\_

Demolition: \_\_\_\_\_

Encapsulation: \_\_\_\_\_

\* Includes setup, build enclosure, asbestos removal, demobilizing, etc.

+Include **only** those dates you are conducting asbestos removal/demo.

Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

### 3. ABATEMENT CONTRACTOR: Internal Project #: \_\_\_\_\_

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

E-mail: \_\_\_\_\_

Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

### 4. DEMOLITION CONTRACTOR: Internal Project #: \_\_\_\_\_

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

E-mail: \_\_\_\_\_

Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

### 5. FACILITY OWNER: ("Facility" includes Bridges)

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

E-mail: \_\_\_\_\_

Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

### 6. FACILITY DESCRIPTION:

Facility Name: \_\_\_\_\_

Location Address/Description: \_\_\_\_\_

\_\_\_\_\_ If Apt. # of units: \_\_\_\_\_

City/Twp. \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

County: \_\_\_\_\_ Nearest Crossroad: \_\_\_\_\_

Size: (sq. ft.) \_\_\_\_\_ No. of Floors: \_\_\_\_\_ Floor No.: \_\_\_\_\_

Age: \_\_\_\_\_ Present Use: \_\_\_\_\_ Prior Use: \_\_\_\_\_

Specific Location(s) in Facility: \_\_\_\_\_

### 7. DISPOSAL SITE:

Name: \_\_\_\_\_

Location Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

### 8. WASTE TRANSPORTER 1:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

### WASTE TRANSPORTER 2:

### 9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: \_\_\_\_\_

Name/Title of Person Signing Order: \_\_\_\_\_

Date of Order: \_\_\_\_\_ Date Ordered to Begin: \_\_\_\_\_

### 10. IS ASBESTOS PRESENT? Yes No

To be removed prior to demolition

**Estimate the amount of asbestos:** Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM **cannot** remain in a structure, as it is likely to become regulated in the demolition/handling process. It **must** be removed prior to demolition.)

RACM to be Removed

RACM to be Encapsulated

Non-friable ACM **not** removed prior to demo.  
Category I Category II

Units of Measure

				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

\*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

**NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)**

**11. PROJECT DESCRIPTION:** Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

**A) RENOVATION:** Mark all surfaces/types of RACM to be removed:

- Piping     Fittings     Boiler(s)     Tanks(s)  
 Beam(s)     Duct(s)     Tunnel(s)     Ceiling Tile(s)  
 Mag Block     Other (describe) \_\_\_\_\_

**Encapsulation (for LARA):** Mark surfaces/types to be encapsulated:

- Piping     Fittings     Boiler(s)     Tank(s)  
 Beam(s)     Duct(s)     Tunnel(s)     Ceiling Tile(s)  
 Other (describe) \_\_\_\_\_

**Method of removal:** Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): \_\_\_\_\_  
 \_\_\_\_\_

**B) DEMOLITION:** Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: \_\_\_\_\_  
 \_\_\_\_\_

**12. ENGINEERING CONTROLS:** Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: \_\_\_\_\_  
 \_\_\_\_\_

**13. UNEXPECTED ASBESTOS:** Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: \_\_\_\_\_  
 \_\_\_\_\_

**14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS:** **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): \_\_\_\_\_  
 \_\_\_\_\_

**B)** Name, address, and phone number of company performing asbestos survey: \_\_\_\_\_

**C)** Name, accreditation number of inspector, and date of inspection: \_\_\_\_\_

**15. EMERGENCY RENOVATIONS:** Date/time of emergency: \_\_\_\_\_ Describe the sudden, unexpected event: \_\_\_\_\_  
 \_\_\_\_\_

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: \_\_\_\_\_  
 \_\_\_\_\_

**16.** I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

\_\_\_\_\_  
*Signature of Owner or Abatement Contractor      Date*

\_\_\_\_\_  
*Signature of Owner or Demolition Contractor      Date*

**17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)**  
**Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.**

\_\_\_\_\_  
*Signature of Building Owner or Lessee      Date*

\_\_\_\_\_  
*Signature of Asbestos Abatement Contractor Representative      Date*

**NOTE:** It is not mandatory that a signed copy be sent to LARA unless requested. For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

**18. I certify that the above information is correct:**

\_\_\_\_\_  
*Printed Name of Owner/Operator      Date*

\_\_\_\_\_  
*Signature of Owner/Operator      Date*

**MAILING ADDRESSES/PHONE NUMBERS:** (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:  
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program  
 LARA, CSHD  
 P.O. Box 30671  
 Lansing, MI 48909-8171

517.322.1320 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, mail notifications to the appropriate address below (by county of subject facility): For more info visit <http://www.michigan.gov/deq> click on Air, then Asbestos NESHAP Program.

**All Counties (except Wayne County)**

NESHAP Asbestos Program  
 DEQ, AQD  
 P.O. Box 30260  
 Lansing, MI 48909-7760

517.241.7463 (Office)  
 517.373.7064 (Revision Line)

**Wayne County Only**

NESHAP Asbestos Program  
 Detroit Field Office, DEQ, AQD  
 Cadillac Place, Suite 2-300  
 3058 West Grand Boulevard  
 Detroit, MI 48202

313.456.4686 (Office)  
 313.456.2558 (Revision Line)

# SECTION 20107a COMPLIANCE ANALYSIS

FORMER BROKAW PROPERTY  
PARCEL TAX IDENTIFICATION NUMBER H-08-012-300-027  
3013 WEST HURON RIVER DRIVE  
ANN ARBOR, WASHTENAW COUNTY, MICHIGAN

JANUARY 17, 2014

PREPARED FOR:  
**THE CITY OF ANN ARBOR**  
301 EAST HURON  
ANN ARBOR, MICHIGAN 48104





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- Figure 2 Site Schematic Map
- Figure 3 Exposure Pathway Evaluation

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- Table 1 Soil Sample Analytical Detection Summary

## 1.0 INTRODUCTION

As defined under *Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451 (Part 201), as amended and the rules promulgated thereunder*, the term "Facility" applies to any area, place, or property where a hazardous substance in excess of the concentrations that satisfy the cleanup criteria for unrestricted residential use has been released, deposited, disposed of, or otherwise comes to be located. The purpose of this document is to ensure compliance with the Part 20107a (1) requirement that the owner and/or operators of contaminated properties defined as a "Facility" under Part 201 assure responsible and safe use of the property. Section 7a of Part 201 provides that a person who owns or operates property that he/she has knowledge it is a "Facility" must:

- 1) Undertake measures to prevent exacerbation of existing soil and/or groundwater impacts.
- 2) Exercise due care by undertaking response activity necessary to mitigate unacceptable exposure to hazardous substances and allow for the intended use of the Site in a manner that protects the public health and safety.
- 3) Take reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.

Additionally, a person who owns or operates property that he or she has knowledge is a facility shall also do all of the following:

- 4) Provide reasonable cooperation, assistance, and access to the persons that are authorized to conduct response activities at the facility, including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response activity at the facility. Nothing in this subdivision shall be interpreted to provide any right of access not expressly authorized by law, including access authorized pursuant to a warrant or a court order, or to preclude access allowed pursuant to a voluntary agreement.
- 5) Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.
- 6) Not impede the effectiveness or integrity of any land use or resource use restriction employed at the facility in connection with response activities.

Due care requirements are not related to the owner or operator's liability for the contaminants; they apply to non-liable parties and liable parties alike. The due care requirements were designed so contaminated properties could be safely redeveloped.

The Mannik & Smith Group, Inc. (MSG) prepared this Section 20107a Compliance Analysis (Due Care Plan) on behalf of the City of Ann Arbor (hereinafter referred to as "the City") to establish and to maintain (in part) documentation of compliance with Rule 1003(4), which requires a person subject to the provisions of Section 7a to maintain documentation of compliance with Section 7a and to provide such documentation to the Michigan Department of Environmental (MDEQ) upon their request.

In general, this Due Care Plan follows the required format outlined in the *"Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analysis to the Michigan Department of Environmental Quality and for Requesting Optional Determinations under the Authority of Part 201"*. The information necessary to support this Due Care Plan is provided below.

## 2.0 SITE DESCRIPTION AND HISTORY

This Due Care Plan was completed for an approximate 24.45 acre parcel of land identified by parcel tax identification number H-08-12-300-027 (hereinafter referred to as the "Site"). This Site is addressed 3013 West Huron River Drive, which is located in the Southwest Quarter of Section 12, T2S-R5E of Ann Arbor, Washtenaw County, Michigan. *Figure 1, Site Location Map* depicts the location of the Site relative to nearby roads and major features. *Figure 2,*

*Site Schematic Map*, depicts the Site structures, sample locations and depths, and detected contaminant concentrations.

Based on review of the historic data obtained and interviews conducted during MSG's due diligence, the Site has been primarily used for agricultural and residential purposes with at least five (5) buildings present from 1937 to 1978. After 1978, the Site was generally used for residential purposes including an approximate 3,000 square feet residential building and associated outbuilding that have since become abandoned.

The following sections summarize pertinent activities and investigations completed at the Site. The information presented below is not meant nor intended to replace the whole record, it is merely intended to provide a brief background with respect to the Site.

## **2.1 Phase I Environmental Site Assessment**

MSG conducted a Phase I ESA for the Site, dated September 20, 2013, in general accordance with the American Society for Testing and Materials standard E 1527-05, "*Standard Practice For Environmental Site Assessments: Phase I Environmental Site Assessment Process*" and All Appropriate Inquiry (AAI) codified in Federal Regulation – *40 Code of Federal Regulations (CFR) Part 312 - Standards and Practices for All Appropriate Inquiries*.

The following summarizes recognized environmental conditions (RECs) identified during MSG's Phase I ESA. The information presented below is not meant nor intended to replace the whole record, it is merely intended to provide a brief discussion with respect to RECs identified on the Site.

- 1) One (1) approximately 275-gallon steel aboveground storage tank (AST) and seven (7) approximately 5-gallon steel containers potentially used for storing gasoline, grease, and/or oil were observed within the garage of the abandoned residential building; the associated outbuilding; on the ground adjacent to the associated outbuilding; and in conjunction with poor housekeeping.
- 2) Partially buried and surficial debris consisting of steel, steel fence, steel and clay pipes, wood planks, plastic, glass panels, shattered glass, clay chimney flu, and/or old farm equipment were observed adjacent to the associated outbuilding, in the northeast portion of the Site, and in conjunction with poor housekeeping.
- 3) One (1) 55-gallon steel drum was observed in the basement of the abandoned residential building. The content of this drum is unknown and may contain hazardous substances and/or petroleum products.
- 4) Stained concrete was observed adjacent to the northwest exterior corner of the garage of the abandoned residential building.
- 5) A potential vent pipe was observed in the southeast corner of the Site that may be, or have been associated with an underground storage tank (UST) conceivably associated with the former building(s) located in this area.

## **2.2 Pre-Demolition Asbestos, Lead-Based Paint, and Universal and Hazardous Materials**

In order to identify, characterize, and plan for the hazardous materials that may be encountered during demolition of the abandoned residential building and associated outbuilding, MSG performed a pre-demolition asbestos, lead-based paint (LBP), and universal and hazardous materials survey of the Site. The purpose of these surveys was to identify, quantify and document the location of suspect ACBM; identify the lead content of paint; and identify universal/hazardous waste, household chemicals, and chlorofluorocarbons (refrigerant) containing devices associated with the abandoned residential building and associated outbuilding.

The information presented below is summarized; therefore, it is not meant nor intended to replace the whole record, it is merely intended to provide a brief discussion.

- 1) Sampled materials in the abandoned residential building were found to contain greater than 1% asbestos which will require abatement by an accredited asbestos worker prior to demolition activities. Notification according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, for renovation and demolition projects should be followed. Notification of demolition/renovation should be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) prior to demolition or renovation. This form should be completed by the contractor who completes the demolition. Prior to beginning a demolition or renovation project, the contractor must make the proper notifications to the Michigan Department of Licensing and Regulatory Affairs (LARA) and MDEQ and complete pre-demolition abatement activities.
- 2) Hazardous and universal wastes were identified in the abandoned residential building and associated outbuilding which will require pre-demolition removal, proper disposal, and/or recycled.
- 3) Lead containing paint was not identified within the functional areas of the abandoned residential building and/or associated outbuilding.

### **2.3 Limited Phase II Investigation**

To assess select REC's identified in MSG's *Phase I Environmental Site Assessment*, dated September 20, 2013, MSG conducted a Limited Phase II Investigation for the Site on November 20, 2013. The information presented below is summarized; therefore, it is not meant nor intended to replace the whole record, it is merely intended to provide a brief discussion with respect to REC's investigated on the Site during the Limited Phase II.

- 1) Based on the results of the Limited Phase II Investigation, the Site meets the definition of a "facility" as defined under Part 201 based on the arsenic, lead, selenium, and zinc exceedences of the generic residential cleanup criteria as established pursuant to Part 201/213 *Operational Memorandum 1, Attachment 1*, dated September 28, 2012 (hereinafter referred to as "the generic residential cleanup criteria") for direct contact criteria (DCC), groundwater surface water interface protection criteria (GSIPC), and/or drinking water protection criteria (DWPC) in soil sample SB-3 (0'-1').

### **2.4 Baseline Environmental Assessment**

Using the information summarized in Sections 2.1 through 2.2 of this Due Care Plan, MSG prepared a Baseline Environmental Assessment (BEA) for the Site dated January 13, 2014. In general, the BEA concluded the following:

- 1) The identified constituents of concern (COC) for the Site include, but may not be limited to, heavy metals. While the aforementioned heavy metals are present at the Site at levels exceeding the generic residential cleanup criteria, contaminants have also been identified at the Site at concentrations below the regulatory threshold for soil (i.e. barium, cadmium, chromium, copper, mercury, and silver). It is also plausible that certain other contaminants may be present at the Site, including, but not limited to volatile organic compounds (VOCs) and polynuclear aromatic compounds (PNAs).
- 2) Provides liability protection from environmental impacts existing at the time of property transfer pursuant to Part 201 rules.
- 3) The intended future use of the Site is a publically assessable park that will be managed under the City's Natural Area Preservation (NAP); a program that works to protect and restore Ann Arbor's natural areas and to foster an environmental ethic among its citizens. No structures, playgrounds, or other recreational facilities are planned.
- 4) There will be no storage, use, or handling of any hazardous substances above typical residential quantities at the Site.

### 3.0 REGIONAL TOPOGRAPHY AND GEOLOGY AND LOCAL HYDROGEOLOGY AND SOILS

The United States Geological Survey (USGS) 7.5 minute topographical map titled *Ann Arbor West, Michigan Quadrangle* (1983) was reviewed for topographical information in the vicinity of the Site (Figure 1). The elevation of the Site ranges from approximately 850 feet above mean sea level (msl) in the southeast portion of the Site to approximately 810 feet above msl in the northwest portion of the Site. The nearest identified surface water body is the Huron River located approximately 0.05 miles east and downgradient of the Site. The surface topography in the immediate vicinity of the Site generally slopes to the east. The direction of shallow groundwater flow typically mimics the ground surface contours, moving from topographic highs to topographic lows. This assumes that all lakes, rivers, streams, wetlands, and/or other surface water bodies are interconnected expressions of the water table. As such, groundwater is expected to flow in an eastern direction towards the Huron River.

According to the *Quaternary Geology of Michigan*, W. R. Farrand (1982), the geology in the vicinity of the Site consists of fine-textured glacial till and glacial outwash sand and gravel and post glacial alluvium. According to the *Michigan Department of Natural Resources Land and Minerals Services Division Resource Mapping and Aerial Photography* (1987), the bedrock geology in the vicinity of the Subject Property consists of Coldwater Shale.

According to the *United States Geologic Survey Summary of Hydrogeologic Conditions by County for the State of Michigan* (2007), [soils and glacial deposits that have relatively high permeability occur in areas of the county. However, surrounding these areas are regions where the surface is less permeable till or clay (Fleck, 1980). With the available information, glacial lithologies cannot be regionally correlated in the subsurface. This is likely due to the lateral and vertical heterogeneity of glacial deposits that resulted from a complex depositional history (Westjohn and others, 1994). Glacial deposits range in thickness from 50 to 400 feet in Washtenaw County. In the northeastern and central portion of Washtenaw County, the glacial deposits are commonly greater than 250 feet in thickness. Glacial deposits are composed of till, outwash, and lacustrine deposits. In the county, till is fine to coarse grained, and is present in moraines and till plains. Moraines are a combination of clay, silt, sand, and gravel. Outwash is composed of mostly sand and gravel. Moraines and outwash cover the majority of the county, except in the southeastern portion where lacustrine dominate. Lacustrine are generally composed of a thin sand layer underlain by clay and silt (Fleck, 1980)". "Bedrock underlies the glacial deposits. The bedrock is composed of Mississippian and Devonian sedimentary rocks, which generally dip to the northwest. The units of that form the bedrock surface generally trend southwest to northeast along the surface and increase in age from the northwest to the southeast. In the central portion of the county, the Coldwater Shale forms the bedrock surface (Fleck, 1980). The Coldwater Shale underlies the Marshall Sandstone and has very low permeability. The Coldwater Shale consists of shale, sandstone, siltstone, and carbonates. This is generally considered a confining unit and ranges in thickness, from east to west across the State, from 500 to 1300 feet thick (Westjohn and Weaver, 1996b). The Coldwater Shale contains more sandstone and siltstone in the eastern portion of the basin and grades into more dolomitic deposits in the western portion of the basin (Monnett, 1948)].

The *Soil Survey of Washtenaw County, Michigan*, issued 1977; reprinted 1985; amended January 1996, was consulted for soil classifications. The following is a brief description of the individual soil mapping units present on the Site:

- *Boyer loamy sand, 12 to 18 percent slopes* – This soil is on pitted outwash areas along streams and drainageways of outwash plains, kames, valley trains, terraces, and moraines. When this soil is cultivated, erosion is a severe hazard, and the soil is droughty and subject to soil blowing. Runoff is medium. This soil type is located in the northwestern portions of the Site.
- *Gilford sandy loam, 0 to 2 percent slopes* – This soil is in depressional areas, broad low-lying areas, and drainageways of outwash plains. This soil has a high water table with a very slow runoff.

Depressional areas are subject to flooding by runoff from adjacent areas. This soil type is located in the northwestern portions of the Site.

- *Spinks loamy sand, 0 to 6 percent slopes* – This soil is in on broad uplands and outwash plains, pitted outwash areas, valley trains, terraces, and moraines. This soil is droughty and is subject to soil blowing when cultivated. Runoff is slow to very slow. This soil type is located in the east, west and southern portions of the Site.

#### **4.0 DETAILED CHARACTERISTICS OF SITE USE**

Detailed information regarding the Site can be found in the BEA prepared by MSG dated January 13, 2014. In summary, the Site generally consists of undeveloped woodland property with an approximately 3,000 square foot former residential building and an associated outbuilding that have become abandoned (Figure 2).

It is to our understanding that The City's intended future use of the Site is a publically accessible park that will be managed under the City's NAP program that, in general, will preserve open space yielding a significant public benefit for the scenic enjoyment of the general public. No structures, playgrounds, or other recreational facilities are planned for the Site.

If the Site use changes in the future, the potential exposure pathways discussed in Section 5.0 may need to be reassessed and documentation of compliance with Section 7a must be maintained by the City. In accordance with the MDEQ Rule 1003(6), this document will be maintained by the City and upon request be presented to MDEQ to provide documentation (in part) of compliance with Section 7a requirements.

#### **5.0 PATHWAY EVALUATION**

MSG has completed a preliminary Risk-Based Corrective Action (RBCA) Tier I Evaluation for the Site to 1) identify potential receptors; 2) evaluate potential exposure pathway relevance with applicable cleanup criteria; and 3) compare analytical results to applicable cleanup criteria. Cleanup criteria are applicable if it is reasonable and relevant for the corresponding exposure pathway to be or become complete. An exposure pathway is comprised of a source, transport mechanism, exposure route and a receptor.

Potential sources include:

- Impacted soils

Transport Mechanisms include:

- Wind/Water Erosion and Atmospheric Dispersion

Relevant exposure routes include:

- Ingestion/ Dermal Contact
- Recreational Use/Sensitive Habitat

##### **5.1 Potential Receptors**

MSG conducted an assessment to determine the potential receptors that could be exposed to chemicals impacting the Site. The potential receptor assessment included a review of the current Site; the foreseeable future intended use of the Site; and foreseeable human and ecological receptors both on- and off-site. Based on these factors, potentially exposed receptors at the Site include, but are not limited to the following:

###### **1) Dermal Contact**

- Future workers constructing and/or maintaining the publically accessible park, of which may be exposed to impacted soils.
- Operational workers, service workers, public, and/or trespassers that may be exposed to impacted soils.

- Construction workers that may be exposed to impacted soils during response activities.
  - Utility workers installing, maintaining, or improving utilities at the Site that may be exposed to impacted soils.
- 2) Recreational Use/Sensitive Habitat
- Ecological receptors

## 5.2 Exposure Evaluation

This exposure pathway evaluation is based on the hydrogeologic setting; maximum known chemical concentrations/distribution; likely presence of a chemical release; future intended Site use; and potential receptors.

The Site's future intended land use as a publically accessible park does not conform to the residential land use category; therefore, the current non-generic residential cleanup criteria as established pursuant to Part 201/213 *Operational Memorandum 1, Attachment 1*, dated September 28, 2012 (hereinafter referred to as "the generic non-residential cleanup criteria") was utilized for evaluation purposes. Part 201 generic non-residential cleanup criteria have been developed to correspond to specific exposure pathways for land uses that do not conform to the residential land use.

*Figure 3, Exposure Pathway Evaluation*, summarizes the exposure evaluation process based on current and foreseeable future Site conditions. The analytical results and comparisons to the generic non-residential cleanup criteria are located in *Table 1, Soil Sample Analytical Detection Summary* and summarized below:

- Soil sample SB-3 (0'-1') contained concentrations of lead exceeding generic residential cleanup criteria for DCC and arsenic and selenium exceeding generic residential cleanup criteria for GSIPC and/or DWPC.
- Soil Sample SB-3 (0'-1') contained concentrations of barium, cadmium, copper, and zinc above their statewide default background levels [75,000 micrograms per kilogram (ug/kg), 1,200 ug/kg and 160,000 ug/kg, 47000 ug/kg], respectively; however, were below generic residential cleanup criteria.
- Soil samples SB-4 (4'-5') and SB-5 (4'-5') contained arsenic, barium, cadmium, chromium, copper, lead, and zinc concentrations below the generic residential cleanup criteria.
- Soil samples SB-1 (4'-5') and SB-2 (4'-5') did not contain VOCs and PNAs concentrations above laboratory method detection limits.
- Soil samples SB-4 (4'-5') and SB-5 (4'-5') did not contain mercury, selenium, and silver concentrations above laboratory method detection limits.

Therefore, exposure pathways of due care concern at the Site that are or may become complete in light of the intended use as a publically accessible park include:

### **Soil**

- Soil Ingestion/Dermal Contact

Response activities can be performed to mitigate the risk of exposure to contaminated media. Section 7.0 presents a plan for response activities as it relates to achieving compliance with due care obligations at the Site.

## 6.0 HAZARDOUS SUBSTANCE INFORMATION

Constituents of concern (COCs) that has been detected in the soil at the Site include those identified in the BEA and summarized in Section 5.2. The sample locations are depicted on Figure 2 and identified COCs are summarized in Tables 1. The identified COCs for the Site include, but may not be limited to, heavy metals. While the aforementioned heavy metals are present at the Site at levels exceeding the generic residential cleanup criteria,

contaminants have also been identified at the Site at concentrations below the regulatory threshold for soil (i.e. barium, cadmium, chromium, copper, mercury, and silver). It is also plausible that certain other contaminants may be present at the Site, including, but not limited to VOCs and PNAs. Contaminants may be hidden in subsurface material, covered by pavement, vegetation, or other substances. Additionally, contamination may not be present in predictable locations. Even with additional exploration, it is not possible to completely eliminate the risk of discovering other contamination on Site. It cannot be assumed that samples collected and conditions observed are representative of an area that has not been sampled and/or tested.

## **7.0 PLAN FOR RESPONSE ACTIVITIES**

The plan for response activities is as follows:

- 1) Limited soil removal within the vicinity of SB-3 will be performed to eliminate or reduce lead concentrations below applicable generic non-residential cleanup criteria. Upon completion of limited soil removal activities, confirmation soil samples will be submitted for laboratory analysis of lead using USEPA Test Method 0200.2/6020A. The excavation will be backfilled with clean sand as appropriate. Results will be documented and maintained in the file for the Site and managed as appropriate by the City.
- 2) Proper abandonment of the onsite water well by a licensed water well drilling contractor registered in the State of Michigan.
- 3) Proper abandonment of the onsite crock well by a licensed water well drilling contractor registered in the State of Michigan and/or improving and enhancing safety measures to ensure long-term protection from the public.
- 4) As an institutional control, the use of drinking water at the Site will be avoided by proper planning and management of the Site using NAP Program. Documentation will be maintained in the file for the Site and managed as appropriate by the City.
- 5) Surficial debris will be removed from the Site to improve the safety and aesthetics of the publically accessible park and to provide protection to third parties. If evidence of a possible release is identified in the vicinity of surficial debris, one or more soil samples will be collected for laboratory analysis. Specific analyses will be determined based on field observations, but may include VOCs using USEPA Method 8260, PNAs using USEPA Method 8270, 10 Michigan metals using USEPA Method 0200.2/6020A, and/or PCBs using USEPA Method 8082.
- 6) Periodic monitoring and landscape maintenance of the Site to adequately address the potential for erosion, runoff and sedimentation, which includes implementation of a contingency plan in the event of unforeseen conditions. When appropriate, to further assess the impacts above GSIPC, soil samples may be submitted for leach testing of lead using appropriate methods. If the leach testing results indicate hazardous concentrations of lead may leach to groundwater, statistical analysis, modeling or additional response activities may be performed.
- 7) Copies of the BEA and this Due Care Plan will be provided to all construction workers, maintenance personnel, and individuals responsible for implementing planned response activities and/or due care at the Site. Access to the Site will be limited during implementation of response activities. Documentation will be maintained in the file for the Site and managed as appropriate by the City.

## **8.0 EVALUATION AND DEMONSTRATION OF COMPLIANCE WITH 7A OBLIGATIONS**

The following sections evaluate and outline the methods of compliance with 7A obligations at the Site. This section will be appropriately amended if additional impacts are identified at the Site.

### **8.1 Prevent Exacerbation**

Exacerbation occurs when a party's activities cause contamination to spread. After the planned response activities (Section 7.0) are completed, the proposed use of the Site as a publically accessible park is not expected to exacerbate the existing known contamination.

Construction workers, maintenance personnel and individuals responsible for implementing Due Care at the Site, as directed by the City, will be properly trained and wear appropriate personal protective equipment (PPE), when necessary, including but not limited to steel-toed boots, long pants, and gloves. Soils or other materials removed from the impacted area located on the Site during response activities; general maintenance of the Site; or periodic monitoring and landscape maintenance of the Site, will be characterized and properly disposed off-site when appropriate. If impacted groundwater is encountered, it will be characterized and properly managed.

Copies of the BEA and Due Care Plan will be provided to all construction workers, maintenance personnel and individuals responsible for implementing planned response activities and/or due care at the Site. Access to the Site will be limited during implementation of response activities.

If unforeseen conditions are encountered during response activities, general maintenance, or periodic monitoring and landscape maintenance of the Site, results of additional response activities will be maintained in the file for the Site and managed as appropriate by the City.

## **8.2 Due Care**

Based on the intended land use, unacceptable exposures to hazardous substances will be mitigated at the Site after response activities are completed. In addition, the City will perform periodic monitoring and landscape maintenance to adequately identify the potential for erosion, runoff, sedimentation and/or exposure of surficial debris. Contingencies to mitigate any impacts representing unacceptable exposures identified in the future are discussed in Section 8.3.

## **8.3 Reasonable Precautions**

If further impacts are identified on the Site, either during response activities or at a later date, additional activities should be conducted to appropriately manage the impacts, including, but not limited to, the following:

- 1) Assess the nature and extent of the newly identified impact(s).
- 2) If the extent of impact(s) is limited to a small area(s), then the impacted media should be removed and the excavation backfilled with clean sand and covered with topsoil or wood chips, as appropriate.
- 3) If the extent of impacts is widespread, then fencing and appropriate signage may be installed to limit public access. Signage should warn the public to keep out of the fenced area and to avoid digging or excavation without permission and appropriate PPE and field screening.

Any excavated soils will be characterized to determine proper offsite disposal requirements, and soil requiring offsite disposal will be transported and disposed into an appropriate, properly licensed landfill facility. When necessary, soil may be temporarily staged within the area of impacts prior to offsite disposal. Temporarily staged soils will be placed on 10-mil or greater plastic sheeting and then covered with 10-mil or greater plastic sheeting in a manner that prevents rainwater from contacting the soils.

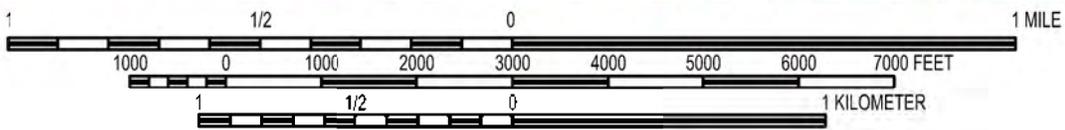
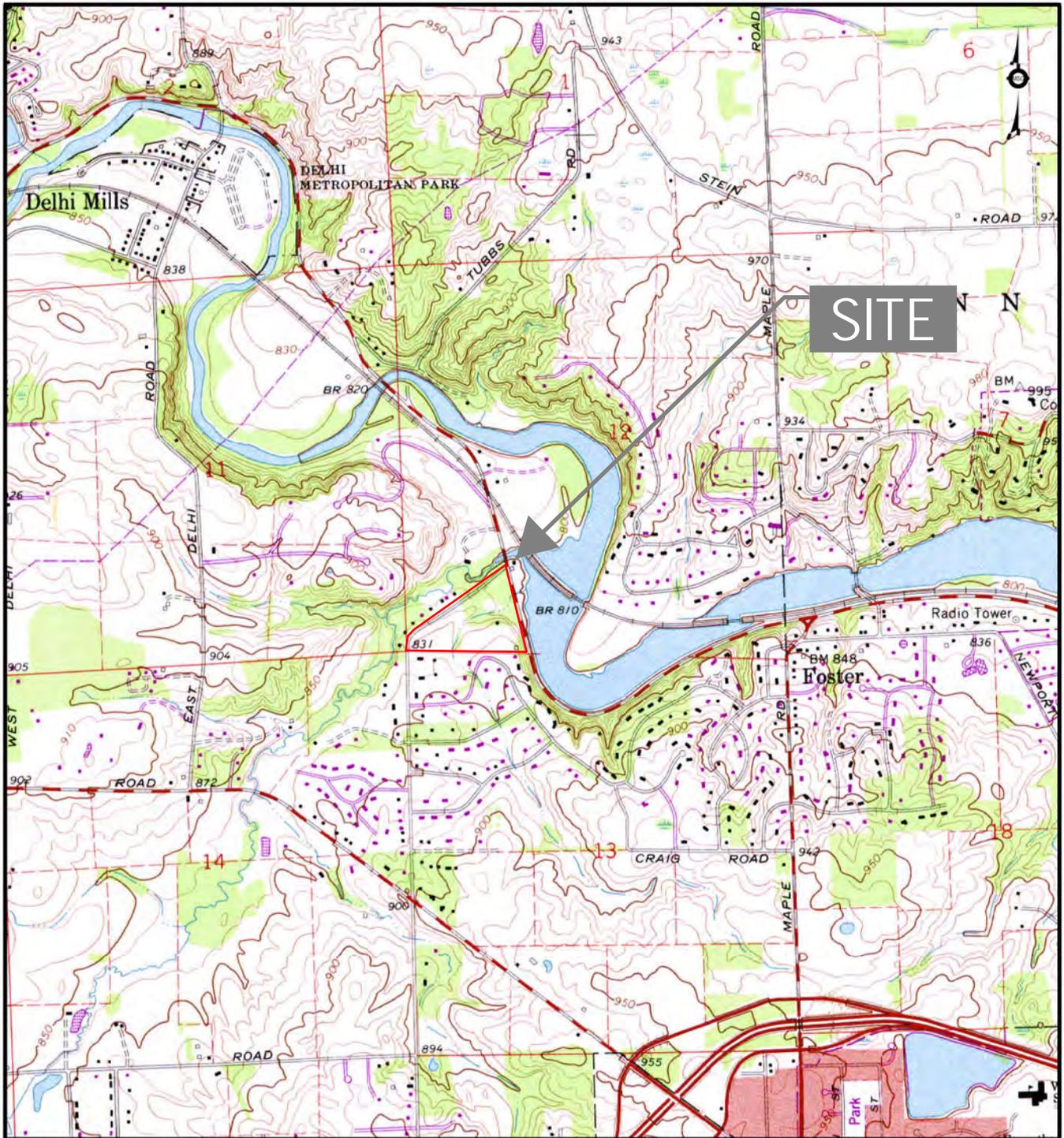
Offsite soil disposal activities will be recorded by appropriate documentation, including, as applicable: manifests, trucking logs, receipts, and other required documentation consistent with Section 20120c(6). Results of the response activities will be documented and maintained in the file for the Site and managed as appropriate by the City.

## **8.4 Precautions Against Third Party Acts or Omissions**

As a precaution against third party acts or omissions, the Site access will be restricted during implementation of response activities, particularly at times and in areas that contaminated soil may be exposed.

FIGURES





CONTOUR INTERVAL 10 FEET  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

— Approximate Site Boundary

**FIGURE 1  
 SITE LOCATION MAP**

PARCEL TAX IDENTIFICATION NUMBER H-08-012-360-027  
 3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO ANNA0026
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 W:\Projects\Projects A-E\ANNA0026\CAD\BEAVANNA0026\_Figure 2\_Site Schematic Map.dgn

SB-5 (SOIL)	
DEPTH (4'-5')	
VOCs	NS
PNAs	NS
As	BC
Ba	BC
Cad	BC
Cu	BC
Pb	BC
Zn	BC
Hg	ND
Se	ND
Ag	ND

SB-1 (SOIL)	
DEPTH (4'-5')	
VOCs	BC
PNAs	BC
MI 10	NS

Abandoned  
Residential  
Building

SB-2 (SOIL)	
DEPTH (4'-5')	
VOCs	BC
PNAs	BC
MI 10	NS

Outbuilding



**CHEMICAL ABBREVIATIONS**

As = Arsenic  
 Ba = Barium  
 Cd = Cadmium  
 Cr = Chromium  
 Cu = Copper  
 Pb = Lead  
 Hg = Mercury  
 Se = Selenium  
 Ag = Silver  
 Zn = Zinc  
 VOCs = Volatile Organic Compounds  
 PNAs = Polynuclear Aromatic Hydrocarbons  
 MI 10 = 10 Michigan Metals  
 ND = Not Detected  
 BC = Below Criteria  
 NS = Not Sampled

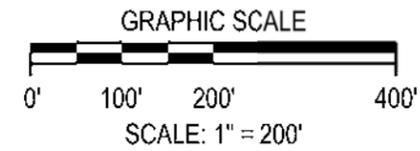
**SOIL COMPOUND CONCENTRATIONS**  
 XI Drinking Water Protection Criteria  
 XII Groundwater Surface Water Interface Protection Criteria  
 XIX Direct Contact Criteria  
 Exceedance of the current generic residential cleanup criteria as established pursuant to Part 201 (Revised September 28, 2012). All units are in micrograms per kilogram (ug/kg).

— Approximate Site Boundary

SB-4 (SOIL)	
DEPTH (4'-5')	
VOCs	NS
PNAs	NS
As	BC
Ba	BC
Cad	BC
Cu	BC
Pb	BC
Zn	BC
Hg	ND
Se	ND
Ag	ND

SB-3 (SOIL)	
DEPTH (4'-5')	
VOCs	NS
PNAs	NS
As	9,000 (XIX)
Pb	3,900,000 (XIX)
Se	680 (XII)
Zn	3,400,000 (XIX)

Former  
Building(s)





**FIGURE 2**  
**SITE SCHEMATIC MAP**

PARCEL TAX IDENTIFICATION NUMBER H-08-012-300-027  
 3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO. ANNA0026
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FIGURE 3  
EXPOSURE PATHWAY EVALUATION

Brokaw Property  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

PRIMARY SOURCES	SECONDARY SOURCES	TRANSPORT MECHANISMS	EXPOSURE ROUTE	RECEPTOR	APPLICABLE CLEANUP CRITERIA <sup>1</sup>	CRITERION EXCEEDED	POTENTIAL REMEDIES
<input type="checkbox"/> Former UST System	<input checked="" type="checkbox"/> Impacted Surficial Soils, Sediments, or Surface Water	<input checked="" type="checkbox"/> Wind Erosion and Atmospheric Dispersion	<input checked="" type="checkbox"/> Soil Ingestion/ Dermal Contact	<input checked="" type="checkbox"/> Residential	Residential SDCC (XIX)	<input type="checkbox"/>	
<input type="checkbox"/> Current UST System	<input type="checkbox"/> Impacted Subsurface Soils	<input type="checkbox"/> Volatilization and Atmospheric Dispersion	<input type="checkbox"/> Air Inhalation	<input checked="" type="checkbox"/> Non-Residential	Non-Residential SDCC (XXVII)	<input checked="" type="checkbox"/>	Institutional Controls (NAP program) and remedial activities (i.e. limited soil and surficial debris removal)
<input type="checkbox"/> Spills	<input type="checkbox"/> Dissolved Ground Water Plume	<input type="checkbox"/> Volatilization and Enclosed Space Accumulation	<input type="checkbox"/> Ground Water Ingestion/ Dermal Contact	<input type="checkbox"/> Residential	Residential GVIC (IV) Residential GW <sub>VI</sub> (Draft) Residential SVIC (XIV) Residential S <sub>VI</sub> (Draft) Residential VSIC (XV, XVI, XVII) Residential PSIC (XVIII)	<input type="checkbox"/>	
<input type="checkbox"/> Industrial Processes	<input type="checkbox"/> Non-Aqueous Phase Liquid (NAPL)	<input type="checkbox"/> Leaching and Ground Water Transport	<input type="checkbox"/> Ground Water Ingestion/ Dermal Contact	<input type="checkbox"/> Non-Residential	Non-Residential GVIC (V) Non-Residential GW <sub>VI</sub> (Draft) Non-Residential SVIC (XXII) Non-Residential S <sub>VI</sub> (Draft) Non-Residential VSIC (XXIII, XXIV, XXV) Non-Residential PSIC (XXVI) Acute Inhalation SL (IX)	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Storm Water/Surface Water Transport	<input type="checkbox"/> Mobile NAPL	<input type="checkbox"/> Surface Water Ingestion/ Dermal Contact	<input type="checkbox"/> Ecological Receptor	Residential DWC (I) Residential DWPC (XI) Non-Residential DWC (II) Non-Residential DWPC (XXI) GCC (VI) GCPC (XIII)	<input type="checkbox"/>	
	<input type="checkbox"/> Acute Hazards	<input type="checkbox"/> NAPL	<input type="checkbox"/> NAPL	<input type="checkbox"/> All Categories	GSIC (III) GSIPC (XII) FAV (Part 31, Rule 323.1057) NAPL Present Water Solubility (VII) Soil Saturation Concentration (XX) Flammability & Explosivity SL (VII)	<input type="checkbox"/>	
		<input type="checkbox"/> Flammability & Explosivity	<input type="checkbox"/> Flammability & Explosivity	<input type="checkbox"/> All Categories	Acute Inhalation SL (IX)	<input type="checkbox"/>	
		<input type="checkbox"/> Acute Inhalation	<input type="checkbox"/> Acute Inhalation	<input type="checkbox"/> All Categories		<input type="checkbox"/>	

Indicates this portion of exposure pathway is present at the Site.  
 Indicates this criterion is exceeded at the Site.

<sup>1</sup> DEQ-RD Op Memo 1 (updated September 28, 2012), unless otherwise noted  
 Roman numerals indicate DEQ criterion number

TABLES



**Table 1**  
**Soil Sample Analytical Detection Summary**  
**3013 West Huron River Drive**  
**Ann Arbor, Washtenaw County, Michigan**

SOIL: Part 201/213 Generic Non-Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	Volatile Organic Compounds (VOCs)																							
	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromodichloromethane (Dichlorobromomethane)	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	o-Chlorotoluene (2-Chlorotoluene)	Dibromochloromethane	1,2-Dibromo-3-chloropropane (Dibromochloropropane)	Dibromomethane	1,2-Dichlorobenzene		
CAS Number	67-64-1	107-13-1	71-43-2	108-86-1	75-27-4	75-25-2	74-83-9	78-93-3	104-51-8	135-98-8	98-06-6	75-15-0	56-23-5	108-90-7	75-00-3	67-66-3	74-87-3	95-49-8	124-48-1	96-12-8	74-95-3	95-50-1		
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Drinking Water Protection Criteria (XXI)	42,000	220	100	1,500	1,600 (W)	1,600 (W)	580	7.6E+05	4,600	4,600	4,600	46,000	100	2,000	34,000	1,600 (W)	22,000	9,300	1,600 (W)	10 (M); 4.0	4,600	14,000		
Groundwater Surface Water Interface Protection Criteria (XII)	34,000	100 (M, X); 40	4,000 (X)	NA	ID	ID	700	44,000	ID	ID	ID	ID	900 (x)	500	22,000 (X)	7,000	ID	ID	ID	ID	NA	280		
Groundwater Contact Protection Criteria (XIII)	1.1E+08 (C)	2.8E+05	2.2E+05	3.6E+05	2.8E+05	8.7E+05(C)	1.4E+06	2.7E+07 (C)	1.2E+05	88,000	1.8E+05	2.8E+05 (C)	92,000	2.6E+05 (C)	9.5E+05 (C)	1.5E+06 (C)	1.1E+06 (C)	5.0E+05 (C)	3.6E+05	1,200 (C)	2.0E+06 (C)	2.1E+05 (C)		
Soil Vapor Intrusion Concentration (S <sub>VI,ind</sub> ) (C)	5.23E+06	137	84.5	12,900	104	11,400	200 (t)	3.04E+06	7,560	738	1,290	3,800	50.0 (t)	5,850	67,200	340	323	12,800	266	194	NA	96,900		
Soil Volatilization to Indoor Air Inhalation (XXII)	1.1E+8 (C)	35,000	8,400	5.8E+05	6,400	7.7E+05	1,600	2.7E+07 (C)	ID	ID	ID	1.4E+05	990	2.2E+05 (C)	9.5E+05 (C)	3.8E+04	10,000	5.0E+05 (C)	21,000	1,200 (C)	ID	2.1E+05 (C)		
Infinite Source Volatile Soil Inhalation Criteria (XXIII)	1.6E+08	17,000	45,000	5.4E+05	31,000	3.1E+06	13,000	3.5E+07	ID	ID	ID	1.6E+06	12,000	9.2E+05	3.6E+07	1.5E+05	1.2E+05	1.5E+06	80,000	900	ID	4.6E+07		
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XXIV)	1.6E+08	17,000	99,000	5.4E+05	31,000	3.1E+06	57,000	3.5E+07	ID	ID	ID	8.0E+06	34,000	1.1E+06	1.2E+08	3.4E+05	1.0E+06	3.1E+06	80,000	900	ID	4.6E+07		
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XXV)	2.0E+08	31,000	2.3E+05	5.4E+05	57,000	3.1E+06	1.4E+05	3.6E+07	ID	ID	ID	1.9E+07	79,000	2.1E+06	2.8E+08	7.9E+05	2.5E+06	6.4E+06	98,000	900	ID	5.5E+07		
Particulate Soil Inhalation Criteria (XXVI)	1.7E+11	5.8E+07	4.7E+08	2.4E+08	1.1E+08	3.6E+09	1.5E+08	2.9E+10	8.8E+08	1.8E+08	2.9E+08	2.1E+10	1.7E+08	2.1E+09	2.9E+10	1.6E+09	2.6E+09	2.1E+09	1.6E+08	7.0E+05	ID	4.4E+10		
Non-Residential Direct Contact Criteria (XXVII)	7.3E+07	74,000	4.0E+05(C)	7.6E+05 (C)	4.9E+05	8.7E+05(C)	1.0E+06	2.7E+07(C,DD)	8.0E+06	8.0E+06	8.0E+06	2.8E+05 (C,DD)	3.9E+05 (C)	2.6E+05 (C)	9.5E+05 (C)	1.5E+06 (C)	1.1E+06 (C)	5.0E+05 (C)	5.0E+05	1,200 (C)	2.0E+06 (C)	2.1E+05 (C)		
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XXX)	1.1E+08	8.3E+06	4.0E+05	7.6E+05	1.5E+06	8.7E+05	2.2E+06	2.7E+07	1.0E+07	1.0E+07	1.0E+07	2.8E+05	3.9E+05	2.6E+05	9.5E+05	1.5E+06	1.1E+06	5.0E+05	6.1E+05	1,200	2.0E+06	2.1E+05		
<b>SAMPLE ID</b>	<b>Depth</b>	<b>SAMPLE</b>																						
SB-1	4'-5'	11/20/2013	<1,000	<120	<50	<100	<100	<120	<200	<750	<50	<58	<50	<290	<58	<58	<290	<58	<250	<50	<120	<29	<250	<100
SB-2	4'-5'	11/20/2013	<1,000	<110	<50	<100	<100	<110	<200	<750	<50	<55	<50	<270	<55	<55	<270	<55	<250	<50	<110	<27	<250	<100
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-6	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-7	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-8	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-9	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-10	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-11	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-12	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-13	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-14	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-15	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

**Bold** indicates concentration above laboratory reporting limits.

Roman numerals indicate DEQ criterion number

**Gray** indicates indicates sample location subsequently removed

Exceeds Drinking Water Protection Criteria (XI)

Exceeds Groundwater Surface Water Interface Protection Criteria (XII)

Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)

Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)

Exceeds Generic Groundwater Contact Protection Criteria (XIII)

Exceeds Direct Contact Criteria (XIX), Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)

ND = Not Detected above laboratory reporting limits

NS = Not Sampled or Not Analyzed

NR = Not Reported (Data missing from provided report)

Notes in parentheses and standard abbreviations from MDEQ Operational Memorandum 1, Attachment 1, dated September 28, 2012 or MDEQ Guidance Document for the Vapor Intrusion Pathway, dated May 2013

**Table 1**  
**Soil Sample Analytical Detection Summary**  
**3013 West Huron River Drive**  
**Ann Arbor, Washtenaw County, Michigan**

SOIL: Part 201/213 Generic Non-Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	VOCs Continued																								
	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethylene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropene	Ethylbenzene	Ethylene Dibromide (EDB, 1,2-Dibromoethane)	2-Hexanone	Iodomethane (Methyl iodide)	Isopropylbenzene (Cumene)	4-Methyl-2-Pentanone (MIBK)	Methylene Chloride	Methyl-tert-butyl ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane		
CAS Number	541-73-1	106-46-7	75-71-8	75-34-3	107-06-2	75-35-4	156-59-2	156-60-5	78-87-5	542-75-6	100-41-4	106-93-4	591-78-6	74-88-4	98-82-8	108-10-1	75-09-2	1634-04-4	91-20-3	103-65-1	100-42-5	630-20-6	79-34-5		
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Drinking Water Protection Criteria (XXI)	480	1,700	2.70E+05	50,000	100	140	1,400	2,000	100	700	1,500	20 (M); 1.0	58,000	NA	2.6E+05	1.0E+05	100	800	1.0E+05	4,600	2,700	6,400	700		
Groundwater Surface Water Interface Protection Criteria (XII)	680	360	ID	15,000	7,200 (X)	2,600	12,000	30,000 (X)	4,600 (X)	180 (X)	360	110 (X)	ID	NA	3,200	ID	30,000 (X)	1.4E+05 (X)	730	ID	2,100 (X)	ID	1,600 (X)		
Groundwater Contact Protection Criteria (XIII)	51,000	1.4E+05	1.0E+6 (C)	8.9E+05 (C)	3.8E+05	2.2E+05	6.4E+05 (C)	1.4E+6 (C)	3.2E+05	1.1E+05	1.4E+05 (C)	500	2.5E+06 (C)	NA	3.9E+05 (C)	2.7E+06 (C)	2.3E+06	5.9E+06 (C)	2.1E+06	3.0E+05	2.7E+05	4.4E+05 (C)	94,000		
Soil Vapor Intrusion Concentration (S <sub>VI,m</sub> ) (c)	740	1,420	68,200	7,330	83.7	1,230	165	760	151	305	3,990	20.0 (l)	16,900	NA	304	1.04E+06	1,540	2.38E+05	8,940	2,370	30,200	292	230		
Soil Volatilization to Indoor Air Inhalation (XXII)	48,000	1.0E+05	1.7E+06	4.3E+05	11,000	330	41,000	43,000	7,400	5,400	1.4E+05 (C)	3,600	1.8E+06	NA	3.9E+05 (C)	2.7E+06 (C)	2.4E+05	5.9E+06 (C)	4.7E+05	ID	5.2E+05 (C)	33,000	23,000		
Infinite Source Volatile Soil Inhalation Criteria (XXIII)	94,000	2.6E+05	6.3E+07	2.5E+06	21,000	3,700	2.1E+05	3.3E+05	30,000	60,000	2.4E+06	5,800	1.3E+06	NA	2.0E+06	5.3E+07	7.0E+05	3.0E+07	3.5E+05	ID	3.3E+06	1.2E+05	34,000		
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XXIV)	94,000	2.6E+05	5.5E+08	6.0E+06	33,000	15,000	4.3E+05	8.4E+05	51,000	2.0E+05	3.1E+06	5,800	1.3E+06	NA	2.0E+06	5.3E+07	1.7E+06	4.1E+07	3.5E+05	ID	3.3E+06	2.1E+05	34,000		
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XXV)	1.1E+05	3.4E+05	1.4E+09	1.4E+07	74,000	37,000	1.0E+06	2.0E+06	1.2E+05	4.7E+05	6.5E+06	9,800	1.5E+06	NA	3.0E+06	7.0E+07	4.0E+06	8.9E+07	3.5E+05	ID	4.2E+06	3.3E+05	34,000		
Particulate Soil Inhalation Criteria (XXVI)	8.8E+07	5.7E+08	1.5E+12	1.5E+10	1.5E+08	7.8E+07	1.0E+09	2.1E+09	1.2E+08	5.9E+08	1.3E+10	1.8E+07	1.2E+09	NA	2.6E+09	6.0E+10	8.3E+09	8.8E+10	8.8E+07	5.9E+08	6.9E+09	5.3E+08	6.8E+07		
Non-Residential Direct Contact Criteria (XXVII)	1.7E+05 (C)	1.9E+06	1.0E+6 (C)	8.9E+05 (C)	4.2E+05	5.7E+05 (C)	6.4E+05 (C)	1.4E+6 (C)	5.5E+05 (C)	2.4E+05	1.4E+05 (C)	430	2.5E+06 (C)	NA	3.9E+05 (C)	2.7E+06 (C)	2.3E+06 (C)	5.9E+6 (C)	5.2E+07	8.0E+06	5.2E+05 (C)	4.4E+05 (C)	2.4E+05		
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XXX)	1.7E+05	NA	1.0E+06	8.9E+05	1.2E+06	5.7E+05	6.4E+05	1.4E+06	5.5E+05	6.2E+05	1.4E+05	8.9E+05	2.5E+06	NA	3.9E+05	2.7E+06	2.3E+06	5.9E+06	NA	1.0E+07	5.2E+05	4.4E+05	8.7E+05		
<b>SAMPLE ID</b>	<b>Depth</b>	<b>SAMPLE</b>																							
SB-1	4'-5'	11/20/2013	<100	<100	<250	<58	<58	<50	<50	<50	<58	<58	<50	<58	<2,500	<120	<250	<2,500	<100	<250	<330	<100	<58	<120	<58
SB-2	4'-5'	11/20/2013	<100	<100	<250	<55	<55	<50	<50	<50	<55	<55	<50	<55	<2,500	<110	<250	<2,500	<100	<250	<330	<100	<55	<110	<55
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-6	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-7	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-8	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-9	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-10	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-11	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-12	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-13	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-14	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
SB-15	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes:  
**Bold** indicates concentration above laboratory reporting limits.  
 Roman numerals indicate DEQ criterion number  
**Gray** indicates indicates sample location subsequently removed  
 Exceeds Drinking Water Protection Criteria (XI)  
 Exceeds Groundwater Surface Water Interface Protection Criteria (XII)  
 Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Generic Groundwater Contact Protection Criteria (XIII)  
 Exceeds Direct Contact Criteria (XIX), Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)  
 ND = Not Detected above laboratory reporting limits  
 NS = Not Sampled or Not Analyzed  
 NR = Not Reported (Data missing from provided report)

**Table 1**  
**Soil Sample Analytical Detection Summary**  
**3013 West Huron River Drive**  
**Ann Arbor, Washtenaw County, Michigan**

SOIL: Part 201/213 Generic Non-Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	VOCs Continued														
	Tetrachloroethylene	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethylene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Total Xylenes		
CAS Number	127-18-4	108-88-3	120-82-1	71-55-6	79-00-5	79-01-6	75-69-4	96-18-4	526-73-8	95-63-6	108-67-8	75-01-4	1330-20-7		
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Drinking Water Protection Criteria (XXI)	100	16,000	4,200	4,000	100	100	1.50E+05	2,400	NA	2,100	1,800	40	5,600		
Groundwater Surface Water Interface Protection Criteria (XII)	1,200 (X)	5,400	5,900 (X)	1,800	6,600 (X)	4,000 (X)	NA	NA	NA	570	1,100	260 (X)	820		
Groundwater Contact Protection Criteria (XIII)	88,000 (C)	2.5E+05 (C)	1.1E+06	4.6E+05 (C)	4.2E+05	4.4E+05	5.6E+05 (C)	8.3E+05 (C)	NA	1.1E+05 (C)	94,000 (C)	2.0E+04	1.5E+05 (C)		
Soil Vapor Intrusion Concentration (S <sub>vi,m</sub> ) (C)	1,030	1.69E+05	5,860	66,600	365	50.0 (t,e)	1.18E+05	NA	53,500	36,900	27,900	40.0 (t,f)	4,890		
Soil Volatilization to Indoor Air Inhalation (XXII)	21,000	2.5E+05 (C)	1.1E+6 (C)	4.6E+05	24,000	1,900	5.6E+05 (C)	7,500	NA	1.1E+05 (C)	94,000 (C)	2,800	1.5E+05 (C)		
Infinite Source Volatile Soil Inhalation Criteria (XXIII)	2.1E+05	3.3E+06	3.4E+07	4.5E+06	57,000	14,000	1.1E+08	11,000	NA	2.5E+07	1.9E+07	29,000	5.4E+07		
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XXIV)	4.9E+05	3.6E+07	3.4E+07	1.5E+07	57,000	25,000	1.4E+11	11,000	NA	6.0E+08	4.6E+08	1.7E+05	6.5E+07		
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XXV)	1.1E+06	3.6E+07	3.4E+07	3.1E+07	1.2E+05	58,000	1.4E+11	12,000	NA	6.0E+08	4.6E+08	4.2E+05	1.3E+08		
Particulate Soil Inhalation Criteria (XXVI)	1.2E+09	1.2E+10	1.1E+10	2.9E+10	2.5E+08	5.9E+07	1.7E+12	8.8E+06	NA	3.6E+10	3.6E+10	8.9E+08	1.3E+11		
Non-Residential Direct Contact Criteria (XXVII)	88,000 (C)	2.5E+05 (C)	1.1E+6 (C,DD)	4.6E+05 (C)	8.4E+05	5.0E+5 (C,DD)	5.6E+05 (C)	8.3E+05 (C)	NA	1.1E+05 (C)	94,000 (C)	34,000	1.5E+05 (C)		
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XXX)	88,000	2.5E+05	1.1E+06	4.6E+05	9.2E+05	5.0E+05	5.6E+05	8.3E+05	NA	1.1E+05	94,000	4.9E+05	1.5E+05		
<b>SAMPLE ID</b>	<b>Depth</b>	<b>SAMPLE</b>													
SB-1	4'-5'	11/20/2013	<50	<50	<330	<58	<58	<58	<100	<120	<100	<100	<100	<58	<150
SB-2	4'-5'	11/20/2013	<50	<50	<330	<55	<55	<55	<100	<110	<100	<100	<100	<55	<150
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-6	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-7	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-8	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-9	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-10	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-11	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-12	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-13	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-14	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-15	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

- Bold** indicates concentration above laboratory reporting limits.
- Roman numerals indicate DEQ criterion number
- Gray** indicates indicates sample location subsequently removed
- Exceeds Drinking Water Protection Criteria (XI)
- Exceeds Groundwater Surface Water Interface Protection Criteria (XII)
- Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)
- Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)
- Exceeds Generic Groundwater Contact Protection Criteria (XIII)
- Exceeds Direct Contact Criteria (XIX), Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)
- ND = Not Detected above laboratory reporting limits
- NS = Not Sampled or Not Analyzed
- NR = Not Reported (Data missing from provided report)

**Table 1  
Soil Sample Analytical Detection Summary  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan**

SOIL: Part 201/213 Generic Non-Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	Polynuclear Aromatic Compounds (PNAs)																Metals									
	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Phenanthrene	Pyrene	Arsenic (B)	Barium (B)	Cadmium (B)	Chromium	Copper (B)	Lead (B)	Mercury (B,Z)	Selenium (B)	Silver (B)	Zinc (B)
CAS Number	83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	218-01-9	53-70-3	206-44-0	86-73-7	193-39-5	91-57-6	85-01-8	129-00-0	7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000
Drinking Water Protection Criteria (XXI)	8.8E+05	17,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.3E+05	8.9E+05	NLL	1.7E+05	1.6E+05	4.8E+05	4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	4,000	13,000	5.00E+06
Groundwater Surface Water Interface Protection Criteria (XII)	8,700	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	2,100	ID	4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M); 1.2	400	100 (M); 27	(G)
Groundwater Contact Protection Criteria (XIII)	9.7E+05	4.4E+05	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.3E+05	8.9E+05	NLL	5.5E+06	1.1E+06	4.8E+05	2.0E+06	1.0E+09 (D)	2.30E+08	1.40E+08	1.0E+09 (D)	ID	47,000	7.80E+07	2.00E+08	1.0E+09 (D)
Soil Vapor Intrusion Concentration (S <sub>VIR</sub> ) (C)	7.26E+06	2.82E+06	5.98E+08	NA	NA	NA	NA	NA	NA	NA	NA	1.19E+07	NA	1.26E+05	86,300	1.09E+09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Volatilization to Indoor Air Inhalation (XXII)	3.5E+08	3.0E+06	1.0E+09 (D)	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+09 (D)	1.0E+9 (D)	NLV	4.9E+06	5.1E+06	1.0E+09 (D)	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV	NLV
Infinite Source Volatile Soil Inhalation Criteria (XXIII)	9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.9E+08	1.5E+08	NLV	1.8E+06	1.9E+05	7.8E+08	NLV	NLV	NLV	NLV	NLV	NLV	6.2E+04	NLV	NLV	NLV
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XXIV)	9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.8E+06	1.9E+05	7.8E+08	NLV	NLV	NLV	NLV	NLV	NLV	6.2E+04	NLV	NLV	NLV
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XXV)	9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.8E+06	1.9E+05	7.8E+08	NLV	NLV	NLV	NLV	NLV	NLV	6.2E+04	NLV	NLV	NLV
Particulate Soil Inhalation Criteria (XXVI)	6.2E+09	1.0E+09	2.9E+10	ID	1.9E+06	ID	3.5E+08	ID	ID	ID	4.1E+09	4.1E+09	ID	2.9E+08	2.9E+06	2.9E+09	9.1E+05	1.5E+08	2.2E+06	2.4E+05	5.9E+07	4.4E+07	8.8E+06	5.9E+07	2.9E+06	ID
Non-Residential Direct Contact Criteria (XXVII)	1.3E+08	5.2E+06	7.3E+08	80,000	8,000	80,000	7.0E+06	8.0E+05	8.0E+06	8,000	1.3E+08	8.7E+07	80,000	2.6E+07	5.2E+06	8.4E+07	3.7E+04	1.3E+08	2.1E+06	9.2E+06	7.3E+07	9.0E+05 (DD)	5.8E+05	9.6E+06	9.0E+06	6.3E+08
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XXX)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>SAMPLE ID</b>	<b>Depth</b>	<b>SAMPLE</b>																								
SB-1	4'-5'	11/20/2013	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-2	4'-5'	11/20/2013	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9,000	1,200,000	3,100	17,000	160,000	3,900,000	<50	680	190	3,400,000
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,800	9,800	100	3,800	5,300	3,800	<50	<200	<100	18,000
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4,400	13,000	100	6,100	6,900	7,000	<50	<200	<100	21,000
SB-6	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,500,000	NS	NS	NS	NS
SB-7	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	490,000	NS	NS	NS	NS
SB-8	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,800,000	NS	NS	NS	NS
SB-9	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	580,000	NS	NS	NS	NS
SB-10	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,100,000	NS	NS	NS	NS
SB-11	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	390,000	NS	NS	NS	NS
SB-12	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,600,000	NS	NS	NS	NS
SB-13	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2,000,000	NS	NS	NS	NS
SB-14	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1,100,000	NS	NS	NS	NS
SB-15	0'-1'	12/3/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	630,000	NS	NS	NS	NS

Notes:  
**Bold** indicates concentration above laboratory reporting limits.  
 Roman numerals indicate DEQ criterion number  
**Gray** indicates indicates sample location subsequently removed  
 Exceeds Drinking Water Protection Criteria (XI)  
 Exceeds Groundwater Surface Water Interface Protection Criteria (XII)  
 Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Generic Groundwater Contact Protection Criteria (XIII)  
 Exceeds Direct Contact Criteria (XIX), Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)  
 ND = Not Detected above laboratory reporting limits  
 NS = Not Sampled or Not Analyzed  
 NR = Not Reported (Data missing from provided report)



**Baseline Environmental Assessment Submittal Form**

*This form is for submittal of a Baseline Environmental Assessment (BEA), as defined by Part 201, Environmental Remediation and Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, for the purpose of establishing an exemption to liability pursuant to Section 20126(1)(c) and Section 21323a(1)(b) for a new owner or operator of property that is a facility as defined by Section 20101(1)(s) or Property as defined by Section 21303(d). The BEA report must be conducted either prior to or within 45 days after becoming the owner or operator, whichever is earliest. This form and the BEA report must be submitted within 6 months of becoming the owner or operator whichever is earliest. A separate BEA is required for each legal entity that is or will be a new owner or operator of the property. To maintain the exemption to liability, the owner and operator must also disclose the BEA to any subsequent purchaser or transferee before conveying interest in the property pursuant to Section 20126(1)(c) and Section 21323a(1)(b). An owner or operator of a facility or Property also has due care obligations under Section 20107a and Section 21304c with respect to any existing contamination to prevent unacceptable exposure; prevent exacerbation; take reasonable precautions; provide reasonable cooperation, assistance, and access to authorized persons taking response activities at the property; comply with land use restrictions associated with response activities; and not impede the effectiveness of response activities implemented at the property. Documentation of due care evaluations and response activities need to be available, but not submitted, to the DEQ within 8 months of becoming the owner or operator of a facility.*

**Section A: Legal Entity Information**

Name of legal entity that will own or operate the property: <b>The City of Ann Arbor</b> Address: <b>301 East Huron</b> City: <b>Ann Arbor</b> State: <b>MI</b> Zip: <b>48108</b> Contact person (Name & Title): <b>Steven D. Powers City Administrator</b>  Telephone: <b>(734) 794-6110x41102</b> E-Mail: <b>spowers@a2gov.org</b>	Contact for BEA questions if different from submitter Name & Title: <b>Walter J. Bolt</b> Company: <b>The Mannik &amp; Smith Group, Inc.</b>  Address: <b>2365 Haggerty Road South Suite 100</b> City: <b>Canton</b> State: <b>MI</b> Zip: <b>48188</b> Telephone: <b>(734) 397-3100</b> E-Mail: <b>wbolt@manniksmithgroup.com</b>
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**Section B: Property Information**

Street Address of Property: <b>3013 West Huron River Drive</b>  City: <b>Ann Arbor</b> State: <b>MI</b> Zip: <b>48108</b> Property Tax ID (include all applicable IDs):  Address according to tax records, if different than above (include all applicable addresses):  City: State: Zip:  Status of submitter relative to the property (check all that apply): Former Current Prospective Owner <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Operator <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	County: <b>Washtenaw</b>  City/Village/Township: <b>Ann Arbor</b>  Town: <b>2S</b> Range: <b>5E</b> Section: <b>12</b> Quarter: <b>SW</b> Quarter-Quarter:  Decimal Degrees Latitude: <b>-42.3157760</b> Decimal Degrees Longitude: <b>-83.796696</b>  Reference point for latitude and longitude: Center of site <input checked="" type="checkbox"/> Main/front door <input type="checkbox"/> Front gate/main entrance <input type="checkbox"/> Other <input type="checkbox"/>  Collection method: Survey <input type="checkbox"/> GPS <input type="checkbox"/> Interpolation <input checked="" type="checkbox"/>
---	---

**Section C: Source of contamination at the property (check all that are known to apply):**

Facility regulated under Part 201, other source, or source unknown	<input checked="" type="checkbox"/>
Part 201 Site ID, if known:	
Leaking Underground Storage Tank regulated pursuant to Part 213	<input type="checkbox"/>
Part 211/213. Facility ID, if known:	
Oil or gas production and development regulated pursuant to Part 615 or 625	<input type="checkbox"/>
Licensed landfill regulated pursuant to Part 115	<input type="checkbox"/>
Licensed hazardous waste treatment, storage, or disposal facility regulated pursuant to Part 111	<input type="checkbox"/>

**Section D: Applicable Dates (provide date for all that are relevant):**

	MM/DD/YYYY
Date All Appropriate Inquiry (AAI) Report or Phase I Environmental Assessment Report completed:	<b>09/20/2013</b>
Date Baseline Environmental Assessment Report conducted:	<b>12/11/2013</b>
Date submitter first became the owner:	<b>11/04/2013</b>
Date submitter first became the operator (if prior to ownership):	
Anticipated date of becoming the owner for prospective owners:	
Anticipated date of becoming the operator for prospective operators:	

If former owner or operator of this property, prior dates of being the owner or operator:

Section E: Check the appropriate response to each of the following questions:		YES	NO
1.	Is the property at which the BEA was conducted a "facility" as defined by Section 20101(1)(s) or a Property as defined by Section 21303(d)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	Is the All Appropriate Inquiry (AAI) compliant with 40 CFR 312, or is the Phase I Environmental Assessment compliant with ASTM E1527-05?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.	Was the BEA, including the AAI and sampling, conducted either prior to or within 45 days of the date of becoming the owner, operator, or of foreclosure, whichever is earliest.?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.	Is this BEA being submitted to the department within 6 months of the submitter first becoming the owner or operator, or foreclosing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.	Does the BEA provide sufficient rationale to demonstrate that the data are reliable and relevant to define conditions at the property at the time of purchase, occupancy, or foreclosure, even if the BEA relies on studies of data prepared by others or conducted for other purposes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	Does this BEA contain the legal description of the property addressed by the BEA?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Does this BEA contain the environmental analytical results, a scaled map showing the sample locations, and the basis for the determination that the property is a facility as defined by Section 20101(1)(s) or the basis for the determination that the property is a Property as defined by Section 21303(d)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Section F: Environmental Consultant Signature:**

*I certify to the best of my knowledge and belief, that this BEA and all related materials are true, accurate, and complete. I certify that an All Appropriate Inquiry (AAI) was conducted in conformance with the scope and limitations of the All Appropriate Inquiry Rule, 40 CFR 312 or a Phase I Environmental Site Assessment (Phase I) in conformance with the scope and limitations of the ASTM E1527-05. I certify that the property is a facility as defined by Section 20101(1)(s) or a Property as defined by Section 21303(d) and have provided the sampling and analyses that support that determination. I certify that any exceptions to, or deletions from, the All Appropriate Inquiry Rule or ASTM E1527-05 are described in Section 1 of the BEA report.*

Signature: Walter J. Bolt Date: 1/31/2014

Printed Name: **Walter J. Bolt**

Company: **The Mannik & Smith Group, Inc.**

Mailing Address: **2365 Haggerty Road South** City: **Canton** State: **MI** Zip: **48188**

Telephone: **(734) 397-3100** E-Mail: **wbolt@mammiksmithgroup.com**

**Section G: Legal Entity Signature:**

*With my signature below, I certify that to the best of my knowledge and belief, this BEA and all related materials are true, accurate, and complete.*

Signature: Steven D. Powers Date: 1/31/14

(Person legally authorized to bind the legal entity)

Printed Name: **Steven D. Powers**

Title and Relationship of signatory to submitter: **City Administrator**

Address: **301 East Huron** City: **Ann Arbor** State: **MI** Zip: **48108**

Telephone: **(734) 794-6110x41102** E-Mail: **spowers@a2gov.org**

Submit the BEA report and this form to the DEQ District Office for the county in which the property is located. A district map is located at [www.michigan.gov/bea](http://www.michigan.gov/bea) or [www.michigan.gov/deqrrd](http://www.michigan.gov/deqrrd).

**BASELINE ENVIRONMENTAL ASSESSMENT  
CONDUCTED PURSUANT TO SECTION 20126(1)(C)  
OF 1994 PA 451, PART 201, AS AMENDED AND THE  
RULES PROMULGATED THEREUNDER**

FORMER BROKAW PROPERTY  
PARCEL TAX IDENTIFICATION NUMBER H-08-012-300-027  
3013 WEST HURON RIVER DRIVE  
ANN ARBOR, WASHTENAW COUNTY, MICHIGAN

CONDUCTED DATE: DECEMBER 11, 2013  
COMPLETED DATE: JANUARY 13, 2014

PREPARED FOR:  
THE CITY OF ANN ARBOR  
301 EAST HURON  
ANN ARBOR, MICHIGAN 48104



**BASELINE ENVIRONMENTAL ASSESSMENT  
CONDUCTED PURSUANT TO SECTION 20126(1)(C)  
OF 1994 PA 451, PART 201, AS AMENDED AND THE  
RULES PROMULGATED THEREUNDER**

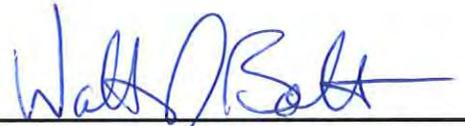
FORMER BROKAW PROPERTY  
PARCEL TAX IDENTIFICATION NUMBER H-08-012-300-027  
3013 WEST HURON RIVER DRIVE  
ANN ARBOR, WASHTENAW COUNTY, MICHIGAN

PREPARED BY:



RYAN E. MONTRI  
SENIOR GEOLOGIST

REVIEWED AND APPROVED BY:



WALTER J. BOLT, CPG, CP  
SENIOR VICE PRESIDENT





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## 1.0 INTRODUCTION

The "facility" for which this Baseline Environmental Assessment (BEA) has been conducted for is an approximately 24.45 acre parcel of land identified by property tax identification number H-08-12-300-027 (hereinafter referred to as the "Site") This Site is also known as the former Brokaw property. This BEA has been prepared for the City of Ann Arbor (hereinafter referred to as "the City") and is being submitted for Disclosure to the Michigan Department of Environmental Quality (MDEQ) in order to establish an exemption from liability for existing contamination pursuant to Section 26(1)(c)(ii) *Part 201 generic residential cleanup criteria, promulgated under the Natural Resources and Environmental Protection Act (Part 201), 1994 P.A. 451, as amended* (NREPA). Part 201 defines a BEA as "an evaluation of environmental conditions which exist at a facility at the time of purchase, occupancy, or foreclosure that reasonably defines the existing conditions and circumstances at the facility so that in the event of a subsequent release, there is a means of distinguishing the new release from existing contamination."

### 1.1 *Legal Description and Scaled Map*

This BEA has been prepared only for the Site, which is located in Southwest Quarter of Section 12, T2S-R5E in Ann Arbor, Washtenaw County, Michigan. A legal description and graphical depiction of the Site is provided in Attachment 1, *Legal Description*. The Site as referenced to nearby roads and major topographical features is presented as *Figure 1, Site Location Map*. *Figure 2, Site Schematic Map*, depicts Site structures, sample locations and depths, and detected contaminant concentrations.

### 1.2 *Site Address and Property Tax Identification Number*

The Site is addressed 3013 West Huron River Drive located in Ann Arbor, Washtenaw County, Michigan and identified as property tax identification number H-08-12-300-027.

### 1.3 *Previous BEAs*

Evidence that the Site was the subject of a previous BEA was not discovered during The Mannik & Smith Group, Inc. (MSG's) due diligence of the Site.

### 1.4 *Proposed Future Uses*

The City's intended future use of the Site is a publically accessible park that will be managed under the City's Natural Area Preservation (NAP); a program that works to protect and restore Ann Arbor's natural areas and to foster an environmental ethic among its citizens.

## 2.0 PAST USES OF THE SITE

Based on review of the historic data and interviews obtained during MSG's due diligence, the Site has been primarily used for agricultural and residential purposes with at least five (5) buildings present from 1937 to 1978. After 1978, the Site was generally used for residential purposes including an approximate 3,000 square feet residential building and associated outbuilding that have since become abandoned.

### 2.1 *Summary of Previous Site Investigations*

MSG was retained by the City to conduct a Phase I Environmental Site Assessment (ESA) and Limited Regulated Materials Survey for the Site. Previous environmental investigations and/or documentation was not provided or discovered during MSG's due diligence of the Site. A copy of MSG's Phase I ESA is included as *Attachment 2, Phase I Environmental Site Assessment*. The Limited Regulated Materials Survey was produced under separate cover.

### 2.2 *Phase I Environmental Site Assessment*

MSG conducted a Phase I ESA for the Site, dated September 20, 2013, in general accordance with the American Society for Testing and Materials standard E 1527-05, "*Standard Practice For Environmental Site*

*Assessments: Phase I Environmental Site Assessment Process* and All Appropriate Inquiry (AAI) codified in Federal Regulation – 40 Code of Federal Regulations (CFR) Part 312 - Standards and Practices for All Appropriate Inquiries.

The following summarizes recognized environmental conditions (RECs) identified during MSG's Phase I ESA. The information presented below is not meant nor intended to replace the whole record, it is merely intended to provide a brief discussion with respect to RECs identified on the Site.

- 1) One (1) approximately 275-gallon steel aboveground storage tank (AST) and seven (7) approximately 5-gallon steel containers potentially used for storing gasoline, grease, and/or oil were observed within the garage of the abandoned residential building; the associated outbuilding; on the ground adjacent to the associated outbuilding; and in conjunction with poor housekeeping.
- 2) Partially buried and surficial debris consisting of steel, steel fence, steel and clay pipes, wood planks, plastic, glass panels, shattered glass, clay chimney flu, and/or old farm equipment were observed adjacent to the associated outbuilding, in the northeast portion of the Site, and in conjunction with poor housekeeping.
- 3) One (1) 55-gallon steel drum was observed in the basement of the abandoned residential building. The content of this drum is unknown and may contain hazardous substances and/or petroleum products.
- 4) Stained concrete was observed adjacent to the northwest exterior corner of the garage of the abandoned residential building.
- 5) A potential vent pipe was observed in the southeast corner of the Site that may be, or have been associated with an underground storage tank (UST) conceivably associated with the former building(s) located in this area.

### **2.3 Limited Phase II Investigation**

To assess select REC's identified in MSG's *Phase I Environmental Site Assessment*, dated September 20, 2013, MSG conducted a Limited Phase II Investigation for the Site on November 20, 2013. The information presented below is summarized; therefore, it is not meant nor intended to replace the whole record, it is merely intended to provide a brief discussion with respect to REC's investigated on the Site during the Limited Phase II.

- 1) Based on the results of the Limited Phase II Investigation, the Site meets the definition of a "facility" as defined under Part 201 based on the arsenic, lead, selenium, and zinc exceedences of the generic residential cleanup criteria as established pursuant to Part 201/213 *Operational Memorandum 1, Attachment 1*, dated September 28, 2012 (hereinafter referred to as "the generic residential cleanup criteria") for direct contact criteria (DCC), groundwater surface water interface protection criteria (GSIPC), and/or drinking water protection criteria (DWPC) in soil sample SB-3 (0'-1').

## **3.0 KNOWN CONTAMINATION**

### **3.1 Hazardous Substances Known to Have Been Released**

As previously mentioned in Section 2.3, MSG conducted a Limited Phase II Investigation at the Site on November 20, 2013. Refer to Figure 2 for soil sample locations collected during MSG's Limited Phase II Investigation. The sample analytical results were compared to the generic residential cleanup criteria and are summarized in *Table 1, Soil Sample Analytical Detection Summary*. A copy of laboratory analytical reports and chains of custody are included in *Attachment 3, Laboratory Analytical Report and Chain of Custody*.

- Soil sample SB-3 (0'-1') contained concentrations of arsenic and lead exceeding generic residential cleanup criteria for DCC; selenium exceeding generic residential cleanup criteria for GSIPC; and zinc exceeding generic residential cleanup criteria for DWPC.
- Soil Sample SB-3 (0'-1') contained concentrations of barium, cadmium, and copper above their statewide default background levels [75,000 micrograms per kilogram (ug/kg), 1,200 ug/kg and 160,000 ug/kg], respectively; however, were below generic residential cleanup criteria.
- Soil samples SB-4 (4'-5') and SB-5 (4'-5') contained arsenic, barium, cadmium, chromium, copper, lead, and zinc concentrations below the generic residential cleanup criteria.
- Soil samples SB-1 (4'-5') and SB-2 (4'-5') did not contain volatile organic compounds (VOCs) and polynuclear aromatic compounds (PNAs) concentrations above laboratory method detection limits.
- Soil samples SB-4 (4'-5') and SB-5 (4'-5') did not contain mercury, selenium, and silver concentrations above laboratory method detection limits.

Upon review of the analytical data compiled during the Limited Phase II Investigation, hazardous substances were identified and compared to the generic residential cleanup criteria.

### 3.2 Basis for Concluding the Site is a "Facility"

MSG concluded the Site meets the definition of a "facility" as defined under Part 201 based on the arsenic, lead, selenium, and zinc exceedences of the generic residential cleanup criteria for DCC, GSIPC and/or DWPC in soil sample SB-3 (0'-1').

### 3.3 Chemical Abstract Numbers

Hazardous Substance	CAS #	Location	Sample Identification	Depth (feet)	Concentration	Media Affected	Part 201 Criteria
Arsenic	7440-38-2	Site	SB-3	0-1	9,000 (ug/kg <sup>1</sup> )	Soil	DCC GSIPC DWPC
Lead	7439-92-1	Site	SB-3	0-1	3,900,000 (ug/kg)	Soil	DCC GSIPC DWPC
Selenium	7782-49-2	Site	SB-3	0-1	680 (ug/kg)	Soil	GSIPC
Zinc	7440-66-6	Site	SB-3	0-1	3,400,000 (ug/kg)	Soil	DWPC

### 3.4 General Location of Known Contamination

Figure 2 depicts the current layout of the Site including pertinent Site features and soil investigation sample locations. The analytical results and comparisons for criteria are summarized in Table 1. A copy of laboratory analytical report and chain of custody are included in Attachment 3.

## 4.0 LIKLIHOOD OF OTHER CONTAMINATION

Based on the results of the Phase I ESA and Limited Phase II Investigation, identified constituents of concern (COCs) for the Site include, but may not be limited to, heavy metals. Identified heavy metals included arsenic, lead, selenium, and zinc. While the aforementioned heavy metals are present at the Site at levels exceeding the generic residential cleanup criteria, contaminants have also been identified at the Site at concentrations below the regulatory threshold for soil (i.e. barium, cadmium, chromium, copper, mercury, and silver). It is also plausible that certain other contaminants may be present at the Site.

During MSG's due diligence of the Site, the remains of undocumented releases of hazardous materials or petroleum products are very difficult and often impossible to detect within the scope of a limited assessment. Contaminants may be hidden in subsurface material, covered by pavement, vegetation, or other substances. Additionally,

<sup>1</sup> Micrograms per kilogram

contamination may not be present in predictable locations. Even with additional exploration, it is not possible to completely eliminate the risk of discovering other contamination on Site and associated parcels. It cannot be assumed that samples collected and conditions observed are representative of an area that has not been sampled and/or tested.

This BEA was conducted and prepared to assist our Client with making a reasonable assessment of potential environmental concerns associated with the Site and is intended to reduce, but not necessarily eliminate, uncertainty regarding the potential for other contamination to exist. The results of this BEA should not and cannot be construed as a certification as to the absence of other contamination at the Site, but rather, as a diligent, prudent, and limited assessment of the Site based on a review of available information set within an established work scope, timeframe and budget.

## 5.0 ALTERNATIVE APPROACHES

Rule 909 allows for engineering controls, isolation zones, or other similar features that provide a verifiable means of assuring that any release that occurs in the future will be spatially separated from existing contaminated media, will be detected, and will be responded to in a timely manner, so as to prevent commingling with the existing condition. Therefore, alternative approaches to provide a reliable means of distinguishing potential new hazardous substance release from existing contamination include the following response activities:

- 1) Limited soil removal and subsequent confirmation soil and/or groundwater samples, if encountered, may be submitted for laboratory analysis of arsenic, lead, selenium, and zinc in the vicinity of SB-3.
- 2) Surficial and partially buried debris may be removed from the Site to improve safety and aesthetics and provide protection to third parties. This includes the proper abatement and demolition of the abandoned residential building, outbuilding, and abandonment and/or removal of related appurtenances.
- 3) The approximately 275-gallon steel UST, seven (7) approximately 5-gallon steel containers, and 55-gallon drums observed in the basement and garage of the former residential building and within and proximate to the associated outbuilding, will be properly characterized (if necessary), removed from the Site, and properly disposed of and/or recycled.

## 6.0 IDENTIFICATION OF AUTHORS AND DATE OF BEA COMPLETION

Authors: Ryan E. Montri, Senior Geologist, and Walter J. Bolt, C.P.G., Project Manager  
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Canton, Michigan 48188  
Phone: (734) 397-3100  
E-mail: Rmontri@manniksmithgroup.com, Wbolt@manniksmithgroup.com

BEA Conducted Date: December 11, 2013

BEA Completion Date: January 8, 2014

## 7.0 CONCLUSIONS

Based on the results of this BEA, the following can be concluded:

- 1) The site meets the definition of a "facility" as defined under Part 201 based on the following:
  - Soil sample results from SB-3 (0'-1') exceed the generic residential cleanup criteria for DCC, GSIPC, and/or DWPC for arsenic, lead, selenium, and zinc.

The identified COCs for the Site include, but may not be limited to, heavy metals. While the aforementioned heavy metals are present at the Site at levels exceeding the generic residential cleanup criteria, contaminants have also been identified at the Site at concentrations below the regulatory threshold for soil (i.e. barium, cadmium, chromium, copper, mercury, and silver). It is also plausible that certain other

contaminants may be present at the Site, including, but not limited to VOCs and PNAs. Contaminants may be hidden in subsurface material, covered by pavement, vegetation, or other substances. Additionally, contamination may not be present in predictable locations. Even with additional exploration, it is not possible to completely eliminate the risk of discovering other contamination on Site. It cannot be assumed that samples collected and conditions observed are representative of an area that has not been sampled and/or tested.

- 2) This BEA provides liability protection from environmental impacts existing at the time of property transfer pursuant to Part 201 rules. This BEA must also be submitted to subsequent purchasers or transferees, including lessees, prior to transfer of the interest of the Site.
- 3) The intended future use of the Site is a publically assessable park that will be managed under NAP. No structures, playgrounds, or other recreational facilities are planned. MSG recommends that a Section 20107a Compliance Analysis (i.e., a Due Care Plan) be prepared and implemented at the Site by undertaking response activity necessary to mitigate unacceptable exposure to hazardous substances and allow for the intended use of the Site in a manner that protects the public health and safety.
- 4) Copies of this BEA and Due Care Plan should be provided to all construction workers, maintenance personnel, and individuals responsible for implementing planned response activities and/or due care at the Site. Access to the Site will be limited during implementation of response activities. Construction workers, maintenance personnel and individuals responsible for implementing due care at the Site, as directed by the City, will be properly trained and wear appropriate personal protective equipment (PPE), when necessary, including but not limited to steel-toed boots, long pants, and gloves. Soils or other materials removed from the impacted portion of the Site during response activities, general maintenance, or periodic monitoring and landscape maintenance will be properly characterized and disposed offsite when appropriate. If impacted groundwater is encountered it will be characterized and properly managed.
- 5) With submission of this BEA, the City agrees there will be no storage, use, or handling of any hazardous substances above typical residential quantities at the Site. Therefore, the potential for a future release is negligible.

## 8.0 REFERENCES

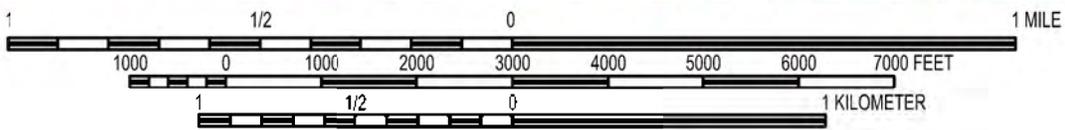
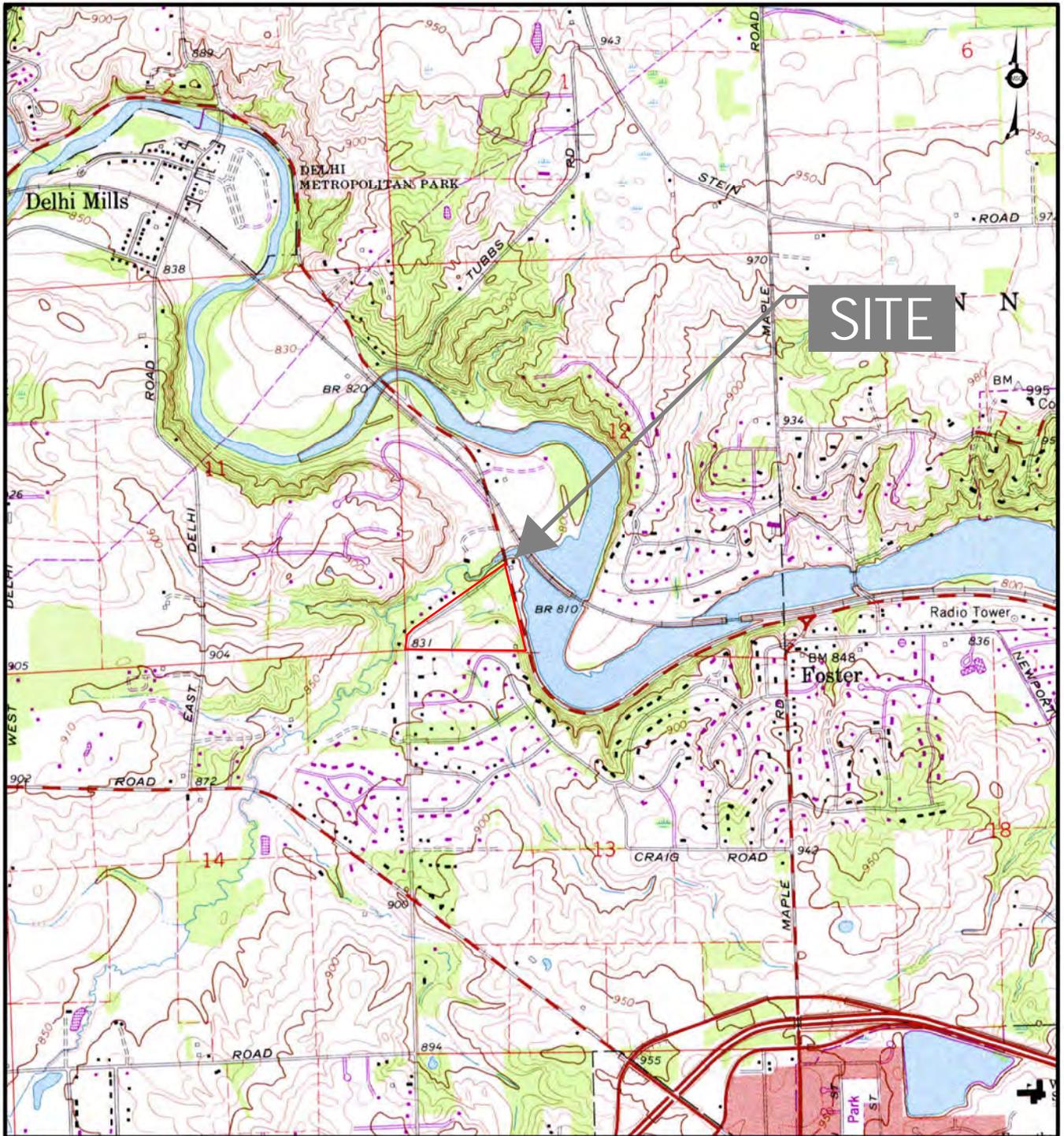
- *Phase I Environmental Site Assessment, Parcel Identification Number H-08-12-300-027, 3013 West Huron River Drive, Ann Arbor, Washtenaw County, Michigan, MSG, dated September 20, 2013.*

## 9.0 ATTACHMENTS

Attachment 1	Legal Description
Attachment 2	Phase I Environmental Site Assessment
Attachment 3	Laboratory Analytical Report and Chain of Custody

Figures





CONTOUR INTERVAL 10 FEET  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

— Approximate Site Boundary

**FIGURE 1**  
**SITE LOCATION MAP**

PARCEL TAX IDENTIFICATION NUMBER H-08-012-360-027  
 3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO ANNA0026
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1/8/2014 2:26:47 PM  
 W:\Projects\Projects A-E\ANNA0026\CAD\BEAVANNA0026\_Figure 2\_Site Schematic Map.dgn

SB-5 (SOIL)	
DEPTH (4'-5')	
VOCs	NS
PNAs	NS
As	BC
Ba	BC
Cad	BC
Cu	BC
Pb	BC
Zn	BC
Hg	ND
Se	ND
Ag	ND

SB-1 (SOIL)	
DEPTH (4'-5')	
VOCs	BC
PNAs	BC
MI 10	NS

Abandoned  
Residential  
Building

SB-2 (SOIL)	
DEPTH (4'-5')	
VOCs	BC
PNAs	BC
MI 10	NS

Outbuilding



**CHEMICAL ABBREVIATIONS**

As = Arsenic  
 Ba = Barium  
 Cd = Cadmium  
 Cr = Chromium  
 Cu = Copper  
 Pb = Lead  
 Hg = Mercury  
 Se = Selenium  
 Ag = Silver  
 Zn = Zinc  
 VOCs = Volatile Organic Compounds  
 PNAs = Polynuclear Aromatic Hydrocarbons  
 MI 10 = 10 Michigan Metals  
 ND = Not Detected  
 BC = Below Criteria  
 NS = Not Sampled

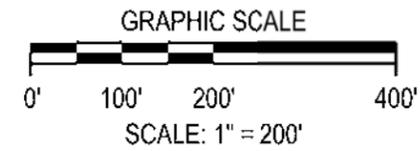
**SOIL COMPOUND CONCENTRATIONS**  
 XI Drinking Water Protection Criteria  
 XII Groundwater Surface Water Interface Protection Criteria  
 XIX Direct Contact Criteria  
 Exceedance of the current generic residential cleanup criteria as established pursuant to Part 201 (Revised September 28, 2012). All units are in micrograms per kilogram (ug/kg).

— Approximate Site Boundary

SB-4 (SOIL)	
DEPTH (4'-5')	
VOCs	NS
PNAs	NS
As	BC
Ba	BC
Cad	BC
Cu	BC
Pb	BC
Zn	BC
Hg	ND
Se	ND
Ag	ND

SB-3 (SOIL)	
DEPTH (4'-5')	
VOCs	NS
PNAs	NS
As	9,000 (XIX)
Pb	3,900,000 (XIX)
Se	680 (XII)
Zn	3,400,000 (XIX)

Former  
Building(s)





**FIGURE 2**  
**SITE SCHEMATIC MAP**

PARCEL TAX IDENTIFICATION NUMBER H-08-012-300-027  
 3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO. ANNA0026
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Tables



**Table 1  
Soil Sample Analytical Detection Summary**

Parcel ID H-08-12-300-027  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	Volatile Organic Compounds (VOCs)																														
	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane (Dichlorobromomethane)	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	p-Chlorotoluene (2-Chlorotoluene)	Dibromochloromethane	Dibromochloropropane (1,2- Dibromo-3-Chloropropane)	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethylene		
CAS Number	67-64-1	107-13-1	71-43-2	108-86-1	74-97-5	75-27-4	75-25-2	74-83-9	78-93-3	104-51-8	135-98-8	98-06-6	75-15-0	56-23-5	108-90-7	75-00-3	67-66-3	74-87-3	95-49-8	124-48-1	96-12-8	74-95-3	95-50-1	541-73-1	106-46-7	75-71-8	75-34-3	107-06-2	75-35-4		
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Drinking Water Protection Criteria (XI)	15,000	100 (M); 52	100	550	NA	1,600 (W)	1,600 (W)	200	2.60E+05	1,600	1,600	1,600	16,000	100	2,000	8,600	1,600 (W)	5,200	3,300	1,600 (W)	10 (M); 4.0	1,600	14,000	170	1,700	95,000	18,000	100	140		
Groundwater Surface Water Interface Protection Criteria (XII)	34,000	100 (M, X); 40	4,000 (X)	NA	NA	ID	ID	700	44,000	ID	ID	ID	ID	900 (X)	44,000	500	22,000 (X)	7,000	ID	ID	ID	NA	280	680	360	ID	15,000	7,200 (X)	2,600		
Groundwater Contact Protection Criteria (XIII)	1.1E+08 (C)	2.8E+05	2.2E+05	3.6E+05	NA	2.8E+05	8.7E+05 (C)	1.4E+06	2.7E+07 (C)	1.2E+05	88,000	1.8E+05	2.8E+05 (C)	92,000	2.6E+05 (C)	9.5E+05 (C)	1.5E+06 (C)	1.1E+06 (C)	5.0E+05 (C)	3.6E+05	1,200 (C)	2.0E+06 (C)	2.1E+05 (C)	51,000	1.4E+05	1.0E+06 (C)	8.9E+05 (C)	3.8E+05	2.2E+05		
Soil Vapor Intrusion Concentration (S <sub>vi,100</sub> ) (c)	3.11E+05	100 (I)	50.0 (I)	771	NA	100 (I)	564	200 (I)	1.81E+05	450	50.0 (I)	76.5	250 (I)	50.0 (I)	349	4,000	50.0 (I)	250 (I)	764	100 (I)	11.5	NA	5,770	100 (I)	100 (I)	4,060	437	50.0 (I)	73.3		
Soil Volatilization to Indoor Air Inhalation (XIV)	1.1E+08 (C)	6,600	1,600	3.1E+05	NA	1,200	1.5E+05	860	2.7E+07 (C)	ID	ID	ID	76,000	190	1.2E+05	9.5E+05 (C)	7,200	2,300	2.7E+05	3,900	220	ID	2.1E+05 (C)	26,000	19,000	9.0E+05	2.3E+05	2,100	62		
Infinite Source Volatile Soil Inhalation Criteria (XV)	1.3E+08	5,000	13,000	4.5E+05	NA	9,100	9.0E+05	11,000	2.90E+07	ID	ID	ID	1.3E+06	3,500	7.7E+05	3.0E+07	45,000	40,000	1.2E+06	24,000	260	ID	3.9E+07	79,000	77,000	5.3E+07	2.1E+06	6,200	1,100		
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XVI)	1.3E+08	5,100	34,000	4.5E+05	NA	9,700	9.0E+05	57,000	2.90E+07	ID	ID	ID	7.9E+06	12,000	9.9E+05	1.2E+08	1.2E+05	4.1E+05	2.9E+06	24,000	260	ID	3.9E+07	79,000	77,000	5.5E+08	5.9E+06	11,000	5,300		
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XVII)	1.9E+08	10,000	79,000	4.5E+05	NA	19,000	9.0E+05	1.4E+05	3.50E+07	ID	ID	ID	1.9E+07	28,000	2.1E+06	2.8E+08	2.7E+05	1.0E+06	6.3E+06	33,000	260	ID	5.2E+07	1.1E+05	1.1E+05	1.4E+09	1.4E+07	26,000	13,000		
Particulate Soil Inhalation Criteria (XVIII)	3.9E+11	4.6E+07	3.8E+08	5.3E+08	NA	8.4E+07	2.8E+09	3.3E+08	6.7E+10	2.0E+09	4.0E+08	6.7E+08	4.7E+10	1.3E+08	4.7E+09	6.7E+11	1.3E+09	4.9E+09	4.7E+09	1.3E+08	5.6E+05	ID	1.0E+11	2.0E+08	4.5E+08	3.3E+12	3.3E+10	1.2E+08	6.2E+07		
Direct Contact Criteria (XIX)	2.3E+07	16,000	1.8E+05	5.4E+05	NA	1.1E+05	8.2E+05	3.2E+05	2.7E+07 (C, DD)	2.5E+06	2.5E+06	2.5E+06	2.8E+05 (C, DD)	96,000	2.6E+05 (C)	9.5E+05 (C)	1.2E+06	1.1E+06 (C)	5.0E+05 (C)	1.1E+05	1,200 (C)	2.0E+06 (C)	2.1E+05 (C)	1.7E+05 (C)	4.0E+05	1.0E+06 (C)	8.9E+05 (C)	91,000	2.0E+05		
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XX)	1.1E+08	8.3E+06	4.0E+05	7.6E+05	NA	1.5E+06	8.7E+05	2.2E+06	2.70E+07	1.0E+07	1.0E+07	1.0E+07	2.8E+05	3.9E+05	2.6E+05	9.5E+05	1.5E+06	1.1E+06	5.0E+05	6.1E+05	1,200	2.0E+06	2.1E+05	1.7E+05	NA	1.0E+06	8.9E+05	1.2E+06	5.7E+05		
<b>SAMPLE ID</b>	<b>DEPTH</b>	<b>SAMPLE DATE</b>																													
SB-1	4'-5'	11/20/2013	<1,000	<120	<50	<100	<100	<100	<120	<200	<750	<50	<58	<50	<290	<58	<58	<290	<58	<250	<50	<120	<29	<250	<100	<100	<100	<250	<58	<58	<50
SB-2	4'-5'	11/20/2013	<1,000	<110	<50	<100	<110	<100	<110	<200	<750	<50	<55	<50	<270	<55	<55	<270	<55	<250	<50	<110	<27	<250	<100	<100	<100	<250	<55	<55	<50
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:  
**Bold** indicates concentration above laboratory reporting limits.  
 Roman numerals indicate DEQ criterion number  
**Gray** indicates indicates sample location subsequently removed  
 Exceeds Drinking Water Protection Criteria (XI)  
 Exceeds Groundwater Surface Water Interface Protection Criteria (XII)  
 Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Generic Groundwater Contact Protection Criteria (XIII)  
 Exceeds Direct Contact Criteria (XIX) and/or Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)  
 ND = Not Detected above laboratory reporting limits  
 NS = Not Sampled or Not Analyzed  
 NR = Not Reported (Data missing from provided report)  
 Notes in parentheses and standard abbreviations from MDEQ Operational Memorandum 1, Attachment 1, dated September 28, 2012 or MDEQ Guidance Document for the Vapor Intrusion Pathway, dated May 2013

**Table 1  
Soil Sample Analytical Detection Summary**

Parcel ID H-08-12-300-027  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	VOCs Continued																																
	1,1,2-Dichloroethane	trans-1,2-Dichloroethane	1,1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Ethylene Dibromide (EDB, 1,2-Dibromoethane)	2-Hexanone	1,1-Dichloroethane (Methyl iodide)	Isopropylbenzene (Cumene)	4-Methyl-2-Pentanone (MIBK)	Methylene Chloride	Methyl tert-butyl ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethylene	Toluene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethylene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Total Xylenes		
CAS Number	156-59-2	156-60-5	78-87-5	542-75-6	542-75-6	100-41-4	106-93-4	591-78-6	74-88-4	98-82-8	108-10-1	75-09-2	1634-04-4	91-20-3	103-65-1	100-42-5	630-20-6	79-34-5	127-18-4	108-88-3	120-82-1	71-55-6	79-00-5	79-01-6	75-69-4	96-18-4	526-73-8	95-63-6	108-67-8	75-01-4	1330-20-7		
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Drinking Water Protection Criteria (XI)	1,400	2,000	100	NA	NA	1,500	20 (M); 1.0	20,000	NA	91,000	36,000	100	800	35,000	1,600	2,700	1,500	170	100	16,000	4,200	4,000	100	100	52,000	840	NA	2,100	1,800	40	5,600		
Groundwater Surface Water Interface Protection Criteria (XII)	12,000	30,000 (X)	4,600 (X)	NA	NA	360	110 (X)	ID	NA	3,200	ID	30,000 (X)	1.4E+05 (X)	730	ID	2,100 (X)	ID	1,600 (X)	1,200 (X)	5,400	5,900 (X)	1,800	6,600 (X)	4,000 (X)	NA	NA	570	1,100	260 (X)	820			
Groundwater Contact Protection Criteria (XIII)	6.4E+5 (C)	1.4E+6 (C)	3.2E+05	NA	NA	1.4E+05 (C)	500	2.5E+06 (C)	NA	3.9E+05 (C)	2.7E+06 (C)	2.3E+06 (C)	5.9E+06 (C)	2.1E+06	3.0E+05	2.7E+05	4.4E+05 (C)	94,000	88,000 (C)	2.5E+05 (C)	1.1E+06	4.6E+05 (C)	4.2E+05	4.4E+05	5.6E+05 (C)	8.3E+05 (C)	1.1E+05 (C)	94,000 (C)	20,000	1.5E+05 (C)			
Soil Vapor Intrusion Concentration (S <sub>VI,RES</sub> ) (c)	50.0 (f)	50.0 (f)	50.0 (f)	NA	NA	198	20.0 (f)	2,500 (f)	NA	250 (f)	61,900	100 (f)	14,200	443	141	1,500	100 (f)	50.0 (f)	52.4	10,100	349	3,970	50.0 (f)	50.0 (e,f)	7,050	NA	3,180	2,200	1,660	40.0 (f,f)	291		
Soil Volatilization to Indoor Air Inhalation (XIV)	22,000	23,000	4,000	NA	NA	87,000	670	9.9E+05	NA	3.9E+05 (C)	2.7E+06 (C)	45,000	5.9E+06 (C)	2.5E+05	ID	2.5E+05	6,200	4,300	11,000	2.5E+05 (C)	1.1E+06 (C)	2.5E+05	4,600	1,000	5.6E+05 (C)	4,000	NA	1.1E+05 (C)	94,000 (C)	270	1.5E+05 (C)		
Infinite Source Volatile Soil Inhalation Criteria (XV)	1.8E+05	2.8E+05	25,000	NA	NA	7.2E+05	1,700	1.1E+06	NA	1.7E+06	4.5E+07	2.1E+05	2.5E+07	3.0E+05	ID	9.7E+05	36,000	10,000	1.7E+05	2.8E+06	2.8E+07	3.8E+06	17,000	11,000	9.2E+07	9,200	NA	2.1E+07	1.60E+07	4,200	4.6E+07		
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XVI)	4.2E+05	8.3E+05	50,000	NA	NA	1.0E+06	1,700	1.1E+06	NA	1.7E+06	4.5E+07	5.9E+05	3.9E+07	3.0E+05	ID	9.7E+05	54,000	10,000	4.8E+05	5.1E+06	2.8E+07	1.2E+07	21,000	25,000	6.3E+08	9,200	NA	5.0E+08	3.80E+08	30,000	6.1E+07		
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XVII)	9.9E+05	2.0E+06	1.1E+05	NA	NA	2.2E+06	3,300	1.4E+06	NA	2.8E+06	6.7E+07	1.4E+06	8.7E+07	3.0E+05	ID	1.4E+06	1.0E+05	14,000	1.1E+06	1.2E+07	2.8E+07	2.8E+07	44,000	57,000	1.5E+09	11,000	NA	5.0E+08	3.80E+08	73,000	1.3E+08		
Particulate Soil Inhalation Criteria (XVIII)	2.3E+09	4.7E+09	2.7E+08	NA	NA	1.0E+10	1.4E+07	2.7E+09	NA	5.8E+09	1.4E+11	6.6E+09	2.0E+11	2.0E+08	1.3E+09	5.5E+09	4.2E+08	5.4E+07	2.7E+09	2.7E+10	2.5E+10	6.7E+10	1.9E+08	1.3E+08	3.8E+12	2.0E+07	NA	8.2E+10	8.20E+10	3.5E+08	2.9E+11		
Direct Contact Criteria (XIX)	6.4E+5 (C)	1.4E+6 (C)	1.4E+05	NA	NA	1.4E+05 (C)	92	2.5E+06 (C)	NA	3.9E+05 (C)	2.7E+06 (C)	1.3E+06	1.5E+06	1.6E+07	2.5E+06	4.0E+05	4.4E+05 (C)	53,000	88,000 (C)	2.5E+05 (C)	9.9E+05 (DD)	4.6E+05 (C)	1.8E+05	5.0E+5 (C,DD)	5.6E+05 (C)	8.3E+05 (C)	NA	1.1E+05 (C)	94,000 (C)	3,800	1.5E+05 (C)		
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XX)	6.4E+05	1.4E+06	5.5E+05	NA	NA	1.4E+05	8.9E+05	2.5E+06	NA	3.9E+05	2.7E+06	2.3E+06	5.9E+06	NA	1.0E+07	5.2E+05	4.4E+05	8.7E+05	88,000	2.5E+05	1.1E+06	4.6E+05	9.2E+05	5.0E+05	5.6E+05	8.3E+05	NA	1.1E+05	94,000	4.9E+05	1.5E+05		
SAMPLE ID	DEPTH	SAMPLE DATE																															
SB-1	4'-5'	11/20/2013	<50	<50	<58	<58	<58	<50	<58	<2,500	<120	<250	<2,500	<100	<250	<330	<100	<58	<120	<58	<50	<50	<330	<58	<58	<58	<100	<120	<100	<100	<100	<58	<150
SB-2	4'-5'	11/20/2013	<50	<50	<55	<55	<55	<50	<55	<2,500	<110	<250	<2,500	<100	<250	<330	<100	<55	<110	<55	<50	<50	<330	<55	<55	<55	<100	<110	<100	<100	<100	<55	<150
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:  
**Bold** indicates concentration above laboratory reporting limits.  
 Roman numerals indicate DEQ criterion number  
**Gray** indicates indicates sample location subsequently removed  
 Exceeds Drinking Water Protection Criteria (XI)  
 Exceeds Groundwater Surface Water Interface Protection Criteria (XII)  
 Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Generic Groundwater Contact Protection Criteria (XIII)  
 Exceeds Direct Contact Criteria (XIX) and/or Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)  
 ND = Not Detected above laboratory reporting limits  
 NS = Not Sampled or Not Analyzed  
 NR = Not Reported (Data missing from provided report)

**Table 1  
Soil Sample Analytical Detection Summary**

Parcel ID H-08-12-300-027  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

SOIL: Part 2011/213 Generic Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	Polynuclear Aromatic Compounds (PNA's)															
	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(e)pyrene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Phenanthrene	Pyrene
CAS Number	83-32-9	208-96-8	120-12-7	56-55-3	205-99-2	207-08-9	191-24-2	50-32-8	218-01-9	53-70-3	206-44-0	86-73-7	193-39-5	91-57-6	85-01-8	129-00-0
Statewide Default Background Levels (X)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Drinking Water Protection Criteria (XI)	3.0E+05	5,900	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.3E+05	3.9E+05	NLL	57,000	56,000	4.8E+05
Groundwater Surface Water Interface Protection Criteria (XII)	8,700	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	2,100	ID
Groundwater Contact Protection Criteria (XIII)	9.7E+05	4.4E+05	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.3E+05	8.9E+05	NLL	5.5E+06	1.1E+06	4.8E+05
Soil Vapor Intrusion Concentration (S <sub>vires</sub> ) (c)	4.32E+05	1.68E+05	3.56E+07	NA	NA	NA	NA	NA	NA	NA	NA	7.09E+05	NA	7,480	5,140	6.47E+07
Soil Volatilization to Indoor Air Inhalation (XIV)	1.9E+08	1.6E+06	1.0E+09 (D)	NLV	ID	NLV	NLV	NLV	ID	NLV	1.0E+09 (D)	5.8E+08	NLV	2.7E+06	2.8E+06	1.0E+09 (D)
Infinite Source Volatile Soil Inhalation Criteria (XV)	8.1E+07	2.2E+06	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.5E+06	1.6E+05	6.5E+08
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XVI)	8.1E+07	2.2E+06	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.5E+06	1.6E+05	6.5E+08
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XVII)	8.1E+07	2.2E+06	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.5E+06	1.6E+05	6.5E+08
Particulate Soil Inhalation Criteria (XVIII)	1.4E+10	2.3E+09	6.7E+10	ID	ID	ID	8.0E+08	1.5E+06	ID	ID	9.3E+09	9.3E+09	ID	6.7E+08	6.7E+06	6.7E+09
Direct Contact Criteria (XIX)	4.1E+07	1.6E+06	2.3E+08	20,000	20,000	2.0E+05	2.5E+06	2,000	2.0E+06	2,000	4.6E+07	2.7E+07	20,000	8.1E+06	1.6E+06	2.9E+07
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XX)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>SAMPLE ID</b>	<b>DEPTH</b>	<b>SAMPLE DATE</b>														
SB-1	4'-5'	11/20/2013	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-2	4'-5'	11/20/2013	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-3	0'-1'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-4	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-5	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:  
**Bold** indicates concentration above laboratory reporting limits.  
 Roman numerals indicate DEQ criterion number  
**Gray** indicates indicates sample location subsequently removed  
 Exceeds Drinking Water Protection Criteria (XI)  
 Exceeds Groundwater Surface Water Interface Protection Criteria (XII)  
 Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Generic Groundwater Contact Protection Criteria (XIII)  
 Exceeds Direct Contact Criteria (XIX) and/or Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)  
 ND = Not Detected above laboratory reporting limits  
 NS = Not Sampled or Not Analyzed  
 NR = Not Reported (Data missing from provided report)

**Table 1  
Soil Sample Analytical Detection Summary**

Parcel ID H-08-12-300-027  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised September 28, 2012 and Guidance Document for the Vapor Intrusion Pathway May 2013 Units: µg/kg	Metals									
	Arsenic	Barium (B)	Cadmium (B)	Chromium	Copper (B)	Lead (B)	Mercury (B,Z)	Selenium (B)	Silver (B)	Zinc (B)
CAS Number	7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6
Statewide Default Background Levels (X)	5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000
Drinking Water Protection Criteria (XI)	4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	4,500	2.4E+06
Groundwater Surface Water Interface Protection Criteria (XII)	4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M); 1.2	400	100 (M); 27	(G)
Groundwater Contact Protection Criteria (XIII)	2.0E+06	1.0E+09 (D)	2.3E+08	1.4E+08	1.0E+09 (D)	ID	47,000	7.8E+07	2.0E+08	1.0E+09 (D)
Soil Vapor Intrusion Concentration (S <sub>VI,100</sub> ) (C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Volatilization to Indoor Air Inhalation (XIV)	NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV
Infinite Source Volatile Soil Inhalation Criteria (XV)	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Finite Source Source Volatile Soil Inhalation Criteria (5 m) (XVI)	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Finite Source Source Volatile Soil Inhalation Criteria (2 m) (XVII)	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Particulate Soil Inhalation Criteria (XVIII)	7.2E+05	3.3E+08	1.7E+06	2.6E+05	1.3E+08	1.0E+08	2.0E+07	1.3E+08	6.7E+06	ID
Direct Contact Criteria (XIX)	7,600	3.7E+07	5.5E+05	2.5E+06	2.0E+07	4.0E+05	1.6E+05	2.6E+06	2.5E+06	1.7E+08
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> ) (XX)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>SAMPLE ID</b>	<b>DEPTH</b>	<b>SAMPLE DATE</b>								
SB-1	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS
SB-2	4'-5'	11/20/2013	NS	NS	NS	NS	NS	NS	NS	NS
SB-3	0'-1'	11/20/2013	9,000	1,200,000	3,100	17,000	160,000	3,900,000	<50	680
SB-4	4'-5'	11/20/2013	2,800	9,800	100	3,800	5,300	3,800	<50	<200
SB-5	4'-5'	11/20/2013	4,400	13,000	100	6,100	6,900	7,000	<50	<200

Notes:  
**Bold** indicates concentration above laboratory reporting limits.  
 Roman numerals indicate DEQ criterion number  
**Gray** indicates indicates sample location subsequently removed  
 Exceeds Drinking Water Protection Criteria (XI)  
 Exceeds Groundwater Surface Water Interface Protection Criteria (XII)  
 Exceeds Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Two or More DWP (XI), GSIP (XII) and/or Applicable Soil Vapor Inhalation Criteria (XIV, c)  
 Exceeds Generic Groundwater Contact Protection Criteria (XIII)  
 Exceeds Direct Contact Criteria (XIX) and/or Soil Saturation Concentration Screening Levels (C<sub>sat</sub>) (XX)  
 ND = Not Detected above laboratory reporting limits  
 NS = Not Sampled or Not Analyzed  
 NR = Not Reported (Data missing from provided report)

Attachment 1  
LEGAL DESCRIPTION



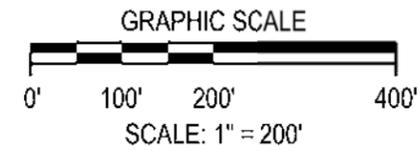
1/8/2014 2:26:47 PM  
W:\Projects\Projects A-E\ANNA0026\CAD\BEAVANNA0026\_Figure 2\_Site Schematic Map.dgn



### LEGAL DESCRIPTION

COM AT SW COR SEC OF 12,  
TH S 84-59-29 E 48.10 FT  
FOR POB, TH 407.00 FT ALG  
ARC OF CURVE TO RIGHT,  
RAD 530.31 FT, CHD N  
37-34-51 E 397.08 FT, TH N  
30-26-00 W 66.00 FT, TH N  
57-14-00 E 850.00 FT, TH N  
51-10-00 E 426.00 FT, TH S  
13-34-00 E 420.00 FT, TH S  
10-58-45 E 808.15 FT, TH N  
84-59-29 W 1527.39 FT TO  
POB. PT SW 1/4 SEC 12,  
T2SR5E, 24.45 AC.

— Approximate Site Boundary



**FIGURE 2**  
**SITE SCHEMATIC MAP**

PARCEL TAX IDENTIFICATION NUMBER H-08-012-300-027  
3013 WEST HURON RIVER DRIVE, ANN ARBOR, WASHTENAW COUNTY, MI

DATE 1/8/2014	DRAWN BY SAH	DESIGNED BY REM	PROJECT NO. ANNA0026
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Attachment 2

PHASE I ENVIRONMENTAL SITE ASSESSMENT



# PHASE I ENVIRONMENTAL SITE ASSESSMENT

PARCEL IDENTIFICATION NUMBER

H-08-12-300-027

3013 WEST HURON RIVER DRIVE

ANN ARBOR, WASHTENAW, MICHIGAN



SEPTEMBER 20, 2013

PREPARED FOR:

**THE CITY OF ANN ARBOR**

301 EAST HURON

ANN ARBOR, WASHTENAW COUNTY, MICHIGAN 48104



# PHASE I ENVIRONMENTAL SITE ASSESSMENT

PARCEL IDENTIFICATION NUMBER  
H-08-12-300-027  
3013 WEST HURON RIVER DRIVE  
ANN ARBOR, WASHTENAW, MICHIGAN

PREPARED BY: 

RYAN E. MONTRI  
SENIOR GEOLOGIST

REVIEWED AND APPROVED BY: 

WALTER J. BOLT, CPG  
SENIOR VICE PRESIDENT



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Appendix H	Historical Topographic Maps

## EXECUTIVE SUMMARY

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Ann Arbor (City) to perform a Phase I Environmental Site Assessment (ESA) for 24.45 acres of vacant woodland property whose tax parcel identification number is H-08-12-300-027 (hereinafter referred to as the Subject Property). The Subject Property is comprised of one (1) parcel of land addressed 3013 West Huron River Drive that is located in a rural area of Ann Arbor, Washtenaw County, Michigan. The Subject Property as referenced to nearby roads and major topographical features is presented as *Figure 1, Site Location Map*.

A Phase I ESA is intended to identify the actual or potential existence of environmental impairment that may be present at the Subject Property. A Phase I ESA is a compilation of information obtained through visual reconnaissance, inquiry into current and past ownership, uses of the Subject Property, and a review of standard environmental record sources. The Phase I ESA study was conducted according to the typical scope and limitations recommended by the American Society for Testing and Materials (ASTM) in their document E 1527-05, titled: "*Standard Practice For Environmental Site Assessments: Phase I Environmental Site Assessment Process*". In addition, MSG acts in general accordance with Environmental Protection Agency's (EPA) rule identifying federal standards and processes for conducting All Appropriate Inquiry (AAI) codified in Federal Regulation – *40 Code of Federal Regulations (CFR) Part 312 - Standards and Practices for All Appropriate Inquiries*.

According to ASTM E 1527-05, the term "recognized environmental conditions" (REC) means the presence of, or likely presence of, any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

According to ASTM E 1527-05, the term "historical recognized environmental conditions" (HREC) is an environmental condition, which in the past would have been considered a REC, but that may or may not be considered a REC currently. The final decision rests with the environmental professional and will be influenced by the current impact of the HREC on the property.

This executive summary is provided to summarize potential environmental concerns that were identified for the Subject Property, as a result of performing a Phase I ESA. The executive summary is general in nature and should not be used to replace or be considered apart from the entire text of MSG's Phase I ESA Report for the Subject Property.

MSG has performed a Phase I ESA in general conformance with the scope and limitations of ASTM E 1527-05 on the Subject Property. Any exceptions to, or deletions from, this practice are described in Appendix B of this report.

This assessment has revealed evidence of the following RECs in connection with the Subject Property.

1. At the time of MSG's site reconnaissance, one (1) approximately 275-gallon steel aboveground storage tank (AST) and seven (7) approximately 5-gallon steel containers potentially used for gasoline, grease, and/or oil were observed within the garage, the storage shed, on the ground adjacent to the storage shed and in conjunction with poor housekeeping. Furthermore, partially buried and surficial debris consisting of steel, steel fence, steel and clay pipes, wood planks, plastic, glass panels, shattered glass, clay chimney flu, and/or old farm equipment were observed adjacent to the storage shed, in the northeast portion of the Subject Property, and in conjunction with poor housekeeping. The presence of the aforementioned are

representative of a REC relative to the Subject Property and warrant further investigation. The City may wish to have the above mentioned items removed from the Subject Property and properly disposed and/or recycled and, upon removal, assess soil and groundwater in the vicinity of the above mentioned.

2. At the time of MSG's site reconnaissance, one (1) 55-gallon steel drum was observed in the basement of the house. The contents of this drum are unknown, may contain hazardous substances and/or petroleum products and is therefore considered a REC relative to the Subject Property. The City may wish to have the contents of this drum analyzed, removed, properly disposed, and/or recycled.
3. At the time of MSG's site reconnaissance, stained concrete was observed adjacent to the northwest corner of the garage of the house. In addition, upon investigation of the stained concrete, a petroleum-like odor was noted. The presence of the stained concrete and associated petroleum-like odor is representative of a REC relative to the Subject Property and warrants further investigation. The City may wish to assess soil and groundwater in the vicinity of the stained concrete.
4. A potential vent pipe was observed in the southeast corner of the Subject Property at the time of MSG's site reconnaissance. This potential vent pipe may be associated with an underground storage tank (UST) conceivably associated with the former buildings located in this area. The presence of this vent pipe is representative of a REC relative to the Subject Property and warrants further investigation. The City may wish to have a ground penetrating radar (GPR) investigation or exploratory excavation completed to determine if this is a vent pipe associated with a UST.
5. Based on the age of the current building (at least 1955), former buildings (at least 1937), and suspect asbestos containing material (ACM) observed on the ground in the southeastern portion of the Subject Property; there is a potential that asbestos and/or lead-based paint (LBP) could be present; however, an ACM or LBP survey was not part of the scope of work for this Phase I ESA. The City may wish to consider conducting an asbestos and lead based paint survey in the event the existing building is renovated or demolished.

## 1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Ann Arbor (City) to perform a Phase I Environmental Site Assessment (ESA) for 24.45 acres of vacant woodland property whose tax parcel identification number is H-08-12-300-027 (hereinafter referred to as the Subject Property). The Subject Property is comprised of one (1) parcel of land addressed 3013 West Huron River Drive that is located in a rural area of Ann Arbor, Washtenaw County, Michigan. The Subject Property as referenced to nearby roads and major topographical features is presented as *Figure 1, Site Location Map*.

### 1.1 Assessment Objectives

The objective of the Phase I ESA is to identify recognized environmental conditions associated with the current and historical uses of a property and identify potential indicators of environmental concern which would suggest the need for additional investigation. This Phase I ESA study was conducted in general accordance with the scope and limitations recommended by the American Society for Testing and Materials (ASTM) in their document E 1527-05, titled: "*Standard Practice For Environmental Site Assessments: Phase I Environmental Site Assessment Process*". In addition, MSG acts in accordance with the United States Environmental Protection Agency's (USEPA) rule identifying federal standards and processes for conducting All Appropriate Inquiry (AAI) codified in Federal Regulation - *40 Code of Federal Regulations (CFR) Part 312 - Standards and Practices for All Appropriate Inquiries*.

According to ASTM E 1527-05, the term "recognized environmental condition" (REC) means the presence of, or likely presence of, any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with applicable laws and regulations. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

According to ASTM E 1527-05, the term "historical recognized environmental conditions" (HREC) is an environmental condition, which in the past would have been considered a REC, but that may or may not be considered a REC currently. The final decision rests with the environmental professional and will be influenced by the current impact of the HREC on the property.

According to Section 1.1 of the cited standard, "...the purpose of this practice... is to define good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of real estate with respect to the range of contaminants within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products". As such, this practice is intended to permit a user to satisfy due diligence requirements to qualify for the innocent landowner defense to CERCLA liability; that is, the practices that constitute "all appropriate inquiry into the previous ownership and use of the property consistent with good commercial or customary practice" as defined in 42 USC § 9601(35)(B).

### 1.2 Scope of Services

The Scope of Services for conducting a Phase I ESA outlined in ASTM practice E 1527-05 and EPA's standards for AAI outlined in *40 CFR Part 312* typically includes the following four components: a site walk-through and visual survey of the Subject Property; a review of pertinent records for evidence of present or historical use of the Subject Property and adjacent properties; interviews with current owners or operators and local government officials; and evaluation of information collected and development of a report. In order

to fulfill the objectives of this Phase I ESA and meet or exceed due diligence requirements, the following tasks were completed:

- A visual survey of the Subject Property to identify areas of potential environmental concern. Color photographs taken to document conditions of the Subject Property at the time of the site reconnaissance are provided in *Appendix A, Site Reconnaissance Photographs*.
- A visual observation of neighboring properties or facilities from the Subject Property or public access areas to assess whether surface conditions on these properties may have adverse environmental impact on the Subject Property.
- Historical land use review of the Subject Property back to 1940 or the first developed use, whichever occurred earlier.
- Collection and review of existing published information relating to general geology, hydrogeology, and topographical information for the Subject Property.
- A regulatory agency file search to identify federal and state listed sites of known or potential environmental concern located within the minimum search distances from the Subject Property as specified in ASTM E 1527-05 and EPA's All Appropriate Inquiry codified in federal regulation - *40 CFR, Part 312*.
- Interviews with the site owner, the owner's representative(s), representatives of the state, county, and local regulatory agencies, or other person's with knowledge of the site.
- Evaluation of compiled information and preparation of a report.

### 1.3 Reliance Statement

This Report is addressed to the City and such other persons as may be designated by the City and their respective successors and assigns. Special Conditions include (i) the Report may be relied upon in determining whether to make a loan evidenced by a note ("the Property Note") secured by the Subject Property, (ii) the Report is provided for the exclusive use of the City in determining whether to purchase, lease, foreclosure, or otherwise occupy the Subject Property, (iii) the Report may be referred to in and included with materials offering the Property Note for sale or an interest in the Property Note, (iv) persons who acquire the Property Note may not rely on the Report without the express written consent of MSG, and (v) the Report speaks only as of its date in the absence of a specific written update of the Report.

The findings of this report are valid as of the report date, subject to the Phase I ESA Limitations, presented in *Appendix B, Phase I ESA Limitations*, which are incorporated by reference herein. An updated Phase I ESA will be required for the Subject Property after a period of 180 days.

## 2.0 SUBJECT PROPERTY DESCRIPTION

### 2.1 Legal Description, Subject Property Location, Characteristics and Current Use

The Legal descriptions for the Subject Property are presented in *Appendix C, Legal Description and Local Municipal/County/State Documents*. The following table summarizes the location, characteristics, and current uses of the Subject Property based on documentation and visual observations made during MSG's site reconnaissance:

Location	Characteristics	Current Use
The Subject Property is addressed 3013 West Huron River Drive in Ann Arbor, Washtenaw County, Michigan. The Subject Property is bounded to the east by West Huron River Drive and to the north and west by North Wagner Road (Figure 1).	The Subject Property consists of approximately 24.45 acres of vacant woodland property located in a rural area of Ann Arbor that generally consists of woodland and residential development.	At the time of MSG's site reconnaissance, the Subject Property generally consisted of vacant woodland property; however, an abandoned house was observed in the east portion of the Subject Property.

## 2.2 Description and Condition of Structures and Other Subject Property Improvements

At the time of MSG's site reconnaissance, the Subject Property contained a two-story residential building and a one-story storage building. These buildings were observed to be abandoned and in a dilapidated state. The Subject Property is presented in *Figure 2, Site Schematic*, which depicts the general layout.

## 2.3 Current Uses of Adjacent Properties

A summary of current uses of adjoining properties relative to the Subject Property is listed below:

Direction	Land Use
North	North Wagner Road followed by residential development and woodlands.
South	Woodland followed by Parkridge Drive and residential development.
East	North Wagner Road followed by residential development and woodland.
West	West Huron River Drive followed by a single residential building located adjacent to and north of the intersection of North Wagner Road and West Huron River Drive followed by the Huron River.

MSG observed the adjacent properties from the Subject Property or public access areas. Based upon observations made at the time of MSG's site reconnaissance, the current uses of adjoining properties are not of environmental concern in relation to the Subject Property.

## 3.0 PREVIOUS REPORTS

MSG was not provided any previous reports for the Subject Property or surrounding area.

## 4.0 PHYSICAL SETTING

MSG reviewed available aerial photographs, soils information and topographic maps to determine the physical setting of the Subject Property and surrounding areas. This information was reviewed to assess the topographic and subsurface characteristics of the Subject Property and surrounding areas, and how those characteristics may ultimately influence potential environmental concerns at and surrounding the Subject Property.

### 4.1 Topography and Local Hydrogeology

The United States Geological Survey (USGS) 7.5 minute topographical map titled *Ann Arbor West, Michigan Quadrangle* (1983) was reviewed for topographical information in the vicinity of the Subject Property as part of this Phase I ESA (Figure 1). The elevation of the Subject Property ranges from approximately 850 feet above mean sea level (msl) in the southeast portion of the Subject Property to approximately 810 feet above msl in the northwest portion of the Subject Property. The nearest identified surface water body is the Huron River located approximately 0.05 miles east and downgradient of the Subject Property. The surface topography in the immediate vicinity of the Subject Property generally slopes to the east. The direction of shallow groundwater flow typically mimics the ground surface contours, moving from topographic highs to topographic lows. This assumes that all lakes, rivers, streams, wetlands, and/or other surface water bodies are interconnected expressions of the water table. As such, groundwater is expected to flow in an eastern direction towards the Huron River.

### 4.2 Geology and Local Soils

According to the *Quaternary Geology of Michigan*, W. R. Farrand (1982), the geology in the vicinity of the Subject Property consists of fine-textured glacial till and glacial outwash sand and gravel and post glacial alluvium. According to the *Michigan Department of Natural Resources Land and Minerals Services Division Resource Mapping and Aerial Photography* (1987), the bedrock geology in the vicinity of the Subject Property consists of Coldwater Shale.

According to the *United States Geologic Survey Summary of Hydrogeologic Conditions by County for the State of Michigan* (2007), [soils and glacial deposits that have relatively high permeability occur in areas of the county. However, surrounding these areas are regions where the surface is less permeable till or clay (Fleck, 1980). With the available information, glacial lithologies cannot be regionally correlated in the subsurface. This is likely due to the lateral and vertical heterogeneity of glacial deposits that resulted from a complex depositional history (Westjohn and others, 1994). Glacial deposits range in thickness from 50 to 400 feet in Washtenaw County. In the northeastern and central portion of Washtenaw County, the glacial deposits are commonly greater than 250 feet in thickness. Glacial deposits are composed of till, outwash, and lacustrine deposits. In the county, till is fine to coarse grained, and is present in moraines and till plains. Moraines are a combination of clay, silt, sand, and gravel. Outwash is composed of mostly sand and gravel. Moraines and outwash cover the majority of the county, except in the southeastern portion where lacustrine dominate. Lacustrine are generally composed of a thin sand layer underlain by clay and silt (Fleck, 1980)". "Bedrock underlies the glacial deposits. The bedrock is composed of Mississippian and Devonian sedimentary rocks, which generally dip to the northwest. The units of that form the bedrock surface generally trend southwest to northeast along the surface and increase in age from the northwest to the southeast. In the central portion of the county, the Coldwater Shale forms the bedrock surface (Fleck, 1980). The Coldwater Shale underlies the Marshall Sandstone and has very low permeability. The Coldwater Shale consists of shale, sandstone, siltstone, and carbonates. This is generally considered a confining unit and ranges in thickness, from east to west across the State, from 500 to 1300 feet thick (Westjohn and Weaver, 1996b). The Coldwater Shale contains more sandstone and siltstone in the eastern portion of the basin and grades into more dolomitic deposits in the western portion of the basin (Monnett, 1948)].

The *Soil Survey of Washtenaw County, Michigan*, issued 1977; reprinted 1985; amended January 1996, was consulted for soil classifications. The following is a brief description of the individual soil mapping units present on the Subject Property:

*Boyer loamy sand, 12 to 18 percent slopes* – This soil is on pitted outwash areas along streams and drainageways of outwash plains, kames, valley trains, terraces, and moraines. When this soil is cultivated, erosion is a severe hazard, and the soil is droughty and subject to soil blowing. Runoff is medium. This soil type is located in the northwestern portions of the Subject Property.

*Gilford sandy loam, 0 to 2 percent slopes* – This soil is in depressional areas, broad low-lying areas, and drainageways of outwash plains. This soil has a high water table with a very slow runoff. Depressional areas are subject to flooding by runoff from adjacent areas. This soil type is located in the northwestern portions of the Subject Property.

*Spinks loamy sand, 0 to 6 percent slopes* – This soil is in on broad uplands and outwash plains, pitted outwash areas, valley trains, terraces, and moraines. This soil is droughty and is subject to soil blowing when cultivated. Runoff is slow to very slow. This soil type is located in the east, west and southern portions of the Subject Property.

## 5.0 RECORDS REVIEW

As part of the current study, readily available regulatory database information was reviewed to assess the possible risk for environmental liabilities from regulatory action, hazardous material spills, or documented hazardous waste disposal at the Subject Property or surrounding properties located within ASTM-specified search distances and the search distances specified in EPA's standards for AAI. This information was obtained from a review of information included in a standard environmental database search report, historical aerial photographs, Sanborn Fire Insurance Maps, historical topographic maps, and/or records of local municipalities for the Subject Property and surrounding area.

## 5.1 Standard Environmental Database Search Report

Environmental Data Resource, Inc. (EDR) of Milford, Connecticut, was retained to perform a regulatory agency database search to evaluate the possible presence of federal and state listed sites of known or potential environmental concern that may be located within the recommended minimum search distances from the Subject Property as specified in Section 7.2.1.1 of ASTM E 1527-05 and EPA's final rule for AAI. A list of the federal and state databases researched by EDR for the current study, including a brief description of each database searched and their respective search distance radius is presented in *Appendix D, Environmental Data Resource, Inc. Radius Map™ Report* (EDR Report).

As specified in section 7.2.1.1 of ASTM E 1527-05 and EPA's Standards for AAI, search distances for various record sources generally range from adjacent sites to sites located within one mile of the Subject Property.

## 5.2 Discussion of Database Search Report

The EDR Report provides an extensive list of Federal, State, local and other environmental databases. Upon review of the EDR Report search of available ("reasonably ascertainable") government records; no geocoded sites were identified as being located (mappable by address) within the ASTM-specified minimum search distances from the Subject Property. Additionally, seven (7) database entries were non-geocoded, meaning that a property has been identified by EDR as a site within a zip code near the Subject Property, but have insufficient address information available to accurately plot the property on their map (provided in Appendix D).

### 5.2.1 Subject Property Results

The Subject Property was not listed on the databases searched.

### 5.2.2 Surrounding Properties Summary

Surrounding properties were not identified to be within the recommended ASTM-specified minimum search distances relative to the Subject Property.

### 5.2.3 Non-Geocoded Properties

A review of the database report indicates that seven (7) non-geocoded properties were identified during the regulatory database search. When possible, MSG used available mapping software and observations made during reconnaissance of the Subject Property to eliminate the non-geocoded sites. As a result, all seven (7) non-geocoded sites were found to be either located outside the recommended ASTM-specified minimum search radii for their respective databases, cross- or downgradient position relative to the Subject Property (with a local estimated direction of groundwater flow to the east towards the Huron River), and/or database listing.

## 5.3 Additional Sources

The following sections contain research information regarding the Subject Property from state, county and local sources.

### 5.3.1 State, County and Local Governmental Sources

MSG requested information under the Freedom of Information Act (FOIA) from the Michigan Department of Environmental Quality Resource Management Division (MDEQ-RMD), MDEQ Air Quality Division (MDEQ-AQD), MDEQ Water Resources Division (MDEQ-WRD), MDEQ Resources and Redevelopment Division (MDEQ-RRD), Department of Licensing and Regulatory Affairs Bureau of Fire Services Storage Tank Division (DLARA), Washtenaw County Environmental Health Department (WCEHD), and Ann Arbor Fire Department. The Ann Arbor Building and

Assessing Department Records pertaining to the Subject Property were available on the Washtenaw County website and are included in Appendix C.

DLARA responded that no information could be located regarding the Subject Property or no evidence of Registered Storage Tanks was located. The MDEQ-RMG, MDEQ-RRD, MDEQ-AQD, and the WCEHD responded that no information regarding environmental related issues could be located in relation to the Subject Property. Furthermore, MSG accessed the septic and water well records located on the Washtenaw County's webpage. Upon review of the Subject Property, no records pertaining to septic and water well records were located.

At the time of this report, the MDEQ-WRD and the Ann Arbor Fire Department have not responded to MSG's FOIA request. If a response is received that results in an environmental concern, an addendum to this report will be provided. County and local government information requests are included in Appendix C.

### 5.3.2 Title Records and Environmental Liens

Title records for the Subject Property were not provided to MSG. MSG reviewed available information on the Washtenaw County's webpage to obtain information regarding possible environmental liens, use limitations, permits, or title records. No environmental liens, permits, or use limitations were recorded.

MSG reviewed a warranty deed dated February 3, 1988. The Subject Property was conveyed through a warranty deed as recorded on Liber/Page 2253/0035. The Grantor or Grantee was not recorded for this conveyance.

County and local government information requests and responses are included in Appendix C.

## 5.4 Historical Aerial Photographs

MSG obtained historical aerial photographs for the Subject Property and surrounding area from Washtenaw County GIS. MSG reviewed aerial photographs dated 1937, 1940, 1949, 1955, 1963, 1969, 1978, 1985, 1992, 2000, 2005, 2006, 2009, 2010, and 2012. Below is a summary of observations and interpretations made by MSG for the Subject Property and adjoining properties after reviewing each historical aerial photograph listed above. Copies of the historical aerial photographs are included in *Appendix E, Historical Aerial Photographs*.

### 5.4.1 Summary of Aerial Photographs

Date	Subject Property Observations	North Adjoining Property Observations	South Adjoining Property Observations	East Adjoining Property Observations	West Adjoining Property Observations
1937	Three (3) small buildings are observed in the southeast portion of the Subject Property. The remaining portions are woodland and agricultural land.	North Wagner Road followed by woodland.	Agricultural land.	West Huron River Drive followed by the Huron River. A single, small building is observed adjacent to and east of the intersection of North Wagner Road and West Huron River Drive.	North Wagner Road followed by woodland.

Date	Subject Property Observations	North Adjoining Property Observations	South Adjoining Property Observations	East Adjoining Property Observations	West Adjoining Property Observations
1940	Same as above with the addition of two (2) small buildings, adjacent to and west of the aforementioned buildings.	Same as above.	Same as above.	Same as above.	Same as above.
1949	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.
1955	Same as above with the addition of what appears to be a small building located in the east-central portion of the Subject Property with two (2) roads connecting this building to the aforementioned buildings located in the southeast portion of the Subject Property.	Same as above.	Same as above.	Same as above.	Same as above with the addition of one (1) small building located adjacent to and west of North Wagner Road.
1963	Same as above.	Same as above with the addition of three (3) small buildings located adjacent to and north of North Wagner Road.	Same as above with the addition of a subdivision consisting of five (5) buildings located adjacent to the southwest corner of the Subject Property and a road with three (3) buildings located adjacent to the northeast corner of the Subject property.	Same as above.	Same as above with the addition of one (1) small building located adjacent to and west of North Wagner Road.
1969	Same as above.	Same as above.	Same as above with the addition of a cul-de-sac with a small building at the end of the aforementioned road.	Same as above.	Same as above with the addition of two (2) small buildings located adjacent to and west of North Wagner Road.
1978	Same as above with the exception of the five (5) small structures located in the southeastern portion of the Subject Property are no longer observed.	Same as above.	Same as above with the continued development of numerous small buildings along the aforementioned road that now runs parallel to the southern boundary of the Subject Property.	Same as above.	Same as above.
1985	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.
1992	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.
2000	Unable to determine due to poor resolution; however, the areas appear to be same as above.	Unable to determine due to poor resolution; however, the areas appear to be same as above.	Unable to determine due to poor resolution; however, the areas appear to be same as above.	Unable to determine due to poor resolution; however, the areas appear to be same as above.	Unable to determine due to poor resolution; however, the areas appear to be same as above.

Date	Subject Property Observations	North Adjoining Property Observations	South Adjoining Property Observations	East Adjoining Property Observations	West Adjoining Property Observations
2005	Unable to determine due to canopy of the woodland; however, the areas appear to be same as above.	Unable to determine due to canopy of the woodland; however, the areas appear to be same as above.	Unable to determine due to canopy of the woodland; however, the areas appear to be same as above.	Unable to determine due to canopy of the woodland; however, the areas appear to be same as above.	Unable to determine due to canopy of the woodland; however, the areas appear to be same as above.
2006	Same as above.				
2009	Same as above.				
2010	Same as above.				
2012	Same as above.				

### 5.5 Sanborn Fire Insurance Maps

Sanborn Fire Insurance Map coverage for the Subject Property was not available for MSG review. A Copy of the "No Coverage Letter" presented in *Appendix F, Sanborn Fire Insurance Maps*, states that the complete holdings of the Sanborn Library, LLC collection was searched by EDR and fire insurance maps covering the Subject Property were not found.

### 5.6 City Directories

MSG obtained information regarding the Subject Property and adjacent properties from city directories provided by EDR. City directories were available for select years ranging from 1974 to 2013. City directories were reviewed to identify current or former businesses associated with the Subject Property or other property information that would indicate or assist with identifying potential environmental concerns in the vicinity of the Subject Property. When possible, addresses were verified based upon location from the Subject Property. City directories are included in *Appendix G, City Directories*.

Below is a summary of observations and interpretations made by MSG for the Subject Property and the adjoining properties that could have historically or currently affect the Subject Property:

#### 5.6.1 Summary of City Directories (Subject Property)

The Subject Property was not listed in the City Directories.

#### 5.6.2 Summary of City Directories (Adjacent Properties)

Adjacent properties have generally consisted of residential listings which are not considered an environmental concern relative to the Subject Property.

### 5.7 Historical Topographic Maps

MSG reviewed historical topographic maps for the Subject Property and surrounding properties. Topographic maps were reviewed for the years 1904, 1906, 1965, 1975, and 1983. The topographic maps are included in *Appendix H, Historical Topographic Maps*.

Below is a summary of observations and interpretations made by MSG for the Subject Property and the adjoining properties after reviewing each topographic map presented in Appendix H.

### 5.7.1 Summary of Topographic Maps

Date	Subject Property Observations	North Adjoining Property Observations	East Adjoining Property Observations	South Adjoining Property Observations	West Adjoining Property Observations
1904	Undeveloped land.	A light duty road followed by undeveloped land.	Undeveloped land followed by the Huron River.	Undeveloped land.	A light duty road followed by undeveloped land.
1906	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.
1965	A single, small building is observed in the east-central portion of the Subject Property and a single, small building is observed in the southeast portion of the Subject Property.	Same as above with the addition of three (3) small buildings located adjacent to and north of the light duty road.	Same as above with the addition of a secondary highway located adjacent to and west of the Huron River.	A light duty road with two (2) small buildings are observed adjacent to the southeast corner of the Subject Property and two (2) small buildings are observed adjacent to the southwest corner of the Subject Property.	Same as above with the addition of three (3) small buildings located adjacent to and west of the light duty road.
1975	Same as above.	Same as above with the addition of three (3) buildings located adjacent to and north of the light duty road.	Same as above.	Same as above with the addition of nine (9) small buildings and the continuation of the light duty road which now ties into the light duty road that parallels the western and northern portions of the Subject Property.	Same as above.
1983	Same as above.	Same as above.	Same as above.	Same as above.	Same as above.

### 5.8 Interviews

MSG attempted to contact local government officials regarding the Subject Property as well as the Subject Property owner and other persons who are familiar with the Subject Property.

#### 5.8.1 Interviews with Subject Property Owner(s)

MSG was unable to interview the Subject Property owner because the Subject Property owner is deceased.

#### 5.8.2 Interview with Occupants

MSG did not conduct interviews with occupants about the Subject Property because the Subject Property building is abandoned.

#### 5.8.3 Interviews with Local Government Officials

Interviews with local government officials are discussed in Section 5.3.1.

#### 5.8.4 Interviews with Others

MSG interviewed Ms. Tangie Hargrove of the WCEHD. Ms. Hargrove did not have any information of concern in relation to the Subject Property or adjacent properties. MSG attempted to interview neighbors that could have information pertaining to the Subject Property; however, the Subject Property did not have adjacent residential properties that were readily accessible to MSG.

## 5.9 Fair Market Value

According to information regarding the Subject Property obtained from the Washtenaw County Assessors Department, the Subject Property, parcel identification number H-08-12-300-027, has a 2013 SEV of \$251,600.00 and a taxable value of \$192,476.00 (Appendix C).

## 5.10 Past Use Summary

Based on review of the historic data and interviews, the Subject Property has primarily consisted of agricultural land with five (5) buildings since at least 1978; after which, generally consisted of woodland with a residential building located in the east-central portion of the Subject Property.

## 6.0 SITE RECONNAISSANCE

On September 10, 2013, Mr. Ryan E. Montri of MSG performed a visual reconnaissance survey of the Subject Property. Access to the Subject Property was granted by the City and Mr. Montri traversed the Subject Property by foot. The Subject Property reconnaissance methodologies and observations are described below.

### 6.1 Methodology and Limiting Conditions

During the site reconnaissance, the Subject Property was observed for evidence of potential environmental concerns such as stressed vegetation, stained surface soils, discolored surface water, above ground storage tanks (ASTs) or underground storage tanks (USTs), hazardous waste containers and improper waste disposal practices. The ground surface at the time of Subject Property reconnaissance was generally dry and covered with leaves, fallen trees and the abandoned residential building and associated storage building. Land use in the immediate vicinity of the Subject Property was also observed from the Subject Property or public access areas. Photographs of the Subject Property collected during the site reconnaissance are provided in Appendix A and the site reconnaissance field form is provided in Appendix C.

### 6.2 General Site Setting

The Subject Property is comprised of one (1), approximately 24.45 acre parcel of land that is addressed 3013 West Huron River Drive. The Subject Property, which is bounded to the north and west by North Wagner Road and bounded to the east by West Huron River Drive, is situated in a rural area Ann Arbor, Washtenaw County, Michigan that generally consists of vacant woodland and residential development.

#### 6.2.1 Current Uses of the Subject Property

At the time of MSG's site reconnaissance, the Subject Property contained a two-story residential building and one-story associated storage building that were observed to be abandoned and in a dilapidated state. The remaining portions of the Subject Property consisted of vacant woodlands.

#### 6.2.2 Past Uses of the Subject Property

See sections 5.4.1 and 5.7.1 for past uses of the Subject Property.

#### 6.2.3 Hazardous Substances and Petroleum Products in Connection with Identified Uses

During the site reconnaissance, MSG observed hazardous substances and/or petroleum products on the Subject Property, as noted in the following table:

Area	Quantity	Hazardous Substance and Petroleum Products	REC
House Interior	One	Approximately 275-gallon steel AST located in the garage.	Yes
	One	Approximately 100-gallon steel AST, potentially used for propane.	No

Area	Quantity	Hazardous Substance and Petroleum Products	REC
Storage Shed Exterior	One	Approximately 80-gallon steel AST, potentially used for propane.	No
	Three	Approximately 5-gallon steel containers, potentially used for gasoline.	Yes
Storage Shed Interior	Three	Approximately 5-gallon steel containers, potentially used for gasoline	Yes
	One	Approximately 5-gallon steel container, potentially used for grease or oil.	Yes
Exterior (Southeast)	One	What appeared to be a vent pipe potentially associated with a UST.	Yes

The aforementioned were observed in conjunction with poor housekeeping and currently or historically contained hazardous substances and/or petroleum products that could represent a material threat to the public or the environment. Furthermore, the potential vent pipe may be associated with a UST conceivably associated with the former buildings located in this area. The presence of the aforementioned is representative of a REC relative to the Subject Property and warrants further investigation. The City may wish the above mentioned removed from the Subject Property and properly disposed, and/or recycled and, upon removal, assess soil and groundwater in the vicinity of the house and storage shed. In addition, the City may wish to have a ground penetrating radar (GRP) investigation or exploratory excavation completed to determine if the vent pipe is associated with a UST.

#### 6.2.4 Storage Tanks

At the time of MSG's site reconnaissance, no storage tanks were observed on the Subject Property that had not been previously discussed (See section 6.2.3).

#### 6.2.5 Odors

At the time of MSG's site reconnaissance, a petroleum-like odor was noted near the exterior northwest corner of the garage. See Section 6.3.2 for further discussion.

#### 6.2.6 Pools of Liquid

At the time of MSG's site reconnaissance, no pools of liquid were observed at the Subject Property.

#### 6.2.7 Drums

At the time of MSG's site reconnaissance, drums were observed on the Subject Property as noted in the following table:

Area	Quantity	Drums	REC
House Interior	One	55-gallon drum of unknown contents.	Yes

This drum was observed in the basement of the house and has the potential to currently or historically contain hazardous substances and/or petroleum products that could represent a material threat to the public or the environment; therefore is representative of a REC relative to the Subject Property and warrants further investigation. The City may wish to have the contents of this drum analyzed, removed, properly disposed, and/or recycled.

### **6.2.8 Hazardous Substances and Petroleum Products Containers**

See Section 6.2.3, 6.2.4, 6.2.7, and 6.2.9.

### **6.2.9 Unidentified Substance Containers**

At the time of MSG's site reconnaissance, no unidentified substance containers were observed on the Subject Property that had not been previously discussed.

### **6.2.10 Polychlorinated Biphenyls (PCBs)**

The Subject Property was surveyed for the presence of liquid-cooled electrical units (transformer and capacitors). Such units are of possible concern because they may be potential PCB sources. One (1) pole-mounted transformer was observed adjacent to and east of the house. This pole-mounted transformer was labeled as non-PCB containing at the time of MSG's site reconnaissance.

## **6.3 Exterior Observations**

During the site reconnaissance, MSG personnel traversed the Subject Property on foot and noted observations and findings.

### **6.3.1 Pits, Ponds or Lagoons**

No pits, ponds, or lagoons were observed on the Subject Property at the time of MSG's site reconnaissance.

### **6.3.2 Stained Soil or Pavement**

At the time of MSG's site reconnaissance, stained concrete was observed adjacent to the northwest corner of the garage of the house. In addition, upon investigation of the stained concrete, a petroleum-like odor was noted. The presence of the stained concrete and associated petroleum-like odor is representative of a REC relative to the Subject Property and warrants further investigation. The City may wish to assess soil and groundwater in the vicinity of the stained concrete.

### **6.3.3 Stressed Vegetation**

No stressed vegetation was observed on the Subject Property at the time of MSG's site reconnaissance.

### **6.3.4 Solid Waste**

At the time of MSG's site reconnaissance, partially buried and surficial debris consisting of steel, wood planks, plastic, clay pipes, glass, and old farm equipment was observed adjacent to the storage shed. In addition, partially buried and surficial debris consisting of steel, steel fence, steel and clay pipes, glass panels, shattered glass, clay chimney flu, and old farm equipment was observed in the southeast portion of the Subject Property. This area was recently disturbed as it appeared that an effort to clean-up this area had occurred in the past as most of the glass had been placed into trash cans and the steel had been placed into a pile. However, the presence of the partially buried and surficial debris is representative of a REC and warrants further investigation. The City may wish to have the partially buried and surficial debris removed from the Subject Property and, upon removal, assess soil and groundwater in the vicinity of the partially buried and surficial debris.

### **6.3.5 Waste Water**

No signs of wastewater lagoons were observed on the Subject Property at the time of MSG's site reconnaissance.

### 6.3.6 Ground Water Wells

MSG did not observe evidence of ground water wells on the Subject Property at the time of MSG's site reconnaissance. MSG attempted to acquired information pertaining to ground water wells from the Washtenaw County Website; however, no information was found. Furthermore, Ms. Hargrove of the WCEHD stated that no records exist pertaining to ground water wells located on the Subject Property.

### 6.3.7 Septic Systems

MSG did not observe any evidence of septic systems on the Subject Property at the time of MSG's site reconnaissance. MSG attempted to acquired information pertaining to ground water wells from the Washtenaw County Website; however, no information was found. Furthermore, Ms. Hargrove of the WCEHD stated that no records exist pertaining to septic systems located on the Subject Property.

## 6.4 Interior Observations

During the site reconnaissance, MSG observed the following interior observations that had not been discussed in previous sections:

### House

- At the time of MSG's site reconnaissance, the house was abandoned and in a dilapidated state. MSG observed remnants of the former owner that generally consisted of cloths, expired food and prescription drugs, furniture, household cleaners, and household trash. Furthermore, it appeared that squatters may have occupied the house after the former owner passed away. The presence of the above mentioned are considered *de minimis* and do not present a material risk of harm to public health or the environment; however, should be removed from the Subject Property.

### Storage building

- At the time of MSG's site reconnaissance, the storage shed contained vast amounts of household trash. The presence of the household trash is considered *de minimis* and does not present a material risk of harm to public health or the environment; however, should be removed from the Subject Property.

## 6.5 Out of Scope Items

The following information is listed as out of scope items based on the ASTM 1527-05 standards. However, the information has been included to more thoroughly address the observed conditions of the Subject Property.

### 6.5.1 Wetlands

At the time of the MSG's site reconnaissance, evidence of wetlands was not observed on the Subject Property.

### 6.5.2 Potential Asbestos Containing Materials (ACM)

Asbestos was widely used for decades in residential, commercial and industrial construction applications. Asbestos is a carcinogen when inhaled and may pose health risks when present in poor conditions. Based on the age of the current building (at least 1955) and former structures (at least 1937) and suspect ACM that was observed on the ground in the southeastern portion of the Subject Property, there is a potential that asbestos could be present; however, an ACM survey was not part of the scope of work for this Phase I ESA.

### 6.5.3 Lead Based Paint (LBP)

LBP paint is of concern for structures built prior to 1978 when it was banned from consumer usage. Based on the age of the current building (at least 1955) and former structures (at least 1937) and suspect ACM that was observed on the ground in the southeastern portion of the Subject Property, there is a potential that asbestos could be present; however, a LBP survey was not part of the scope of work for this Phase I ESA.

### 6.5.4 Radon

Radon was first recognized as an indoor environmental health concern in the mid-1980s. The Michigan Department of Public Health (MDPH), with the assistance of the U.S. EPA and Michigan's local health departments (LHDs), initiated a statewide residential indoor radon survey. Conducted during the 1987-88 winter heating season with all but four of the state's 83 counties participating, the survey found that approximately 12 percent of the homes in this state (nearly one in eight) would have radon screening levels greater than 4 picocuries per liter (pCi/l) of air (4 pCi/l is the recommended action guideline set by EPA). Washtenaw County is in the 40 to 50 percentile of homes with screening levels greater than 4 pCi/l. Therefore, the risk of radon levels in the area could potentially be an environmental concern in if structures are constructed on the Subject Property. However, a radon survey was not part of the scope of work for this Phase I ESA.

## 7.0 DATA GAPS

Sources of historical information that are reviewed for past uses of the Subject Property and adjacent properties include historical topographic maps, historical aerial photographs, historical city directories, federal, state and local records, and interviews of persons knowledgeable of the Subject Property. These interviews have included, but were not limited to, state and county agencies as well as local officials. When appropriate, MSG attempted to acquire information regarding the Subject Property from each of these sources. However, due to incomplete or a lack of coverage for the Subject Property area, historical documentation obtained contained data gaps such as the absence of Sanborn Fire Insurance maps, extended time period between topographic maps, poor resolution of aerial photographs, availability of previous owners and neighbors for interviews, and/or the ground surface at the time of MSG's site reconnaissance being covered with leaves, fallen trees, and the current house and storage shed.

With the exception of the above mentioned data gaps and any new information not identified heretofore, MSG does not believe there are any significant data gaps that would substantially change the findings and opinions regarding this Phase I ESA for the Subject Property.

## 8.0 FINDINGS & CONCLUSIONS

The following is a summary of the findings associated with the Subject Property and adjacent properties discovered during the Phase I ESA investigation.

- The Subject Property is comprised of one (1) 24.45 acre parcel of land that is addressed 3013 West Huron River Drive. The Subject Property is bounded to the north and west by North Wagner Road and bounded to the east by West Huron River Drive and located in a rural area Ann Arbor, Washtenaw County, Michigan that generally consists of vacant woodland and residential development.
- At the time of MSG's site reconnaissance, the Subject Property contained a two-story residential building and a one-story storage building that were observed to be abandoned and in a dilapidated state.
- According to the USGS 7.5 minute topographical map titled *Ann Arbor West, Michigan Quadrangle* (1983); the elevation of the Subject Property ranges from approximately 850 feet above msl in the southeast portion of the Subject Property to approximately 810 feet above msl in the northwest portion of the Subject Property. The nearest identified surface water body is the Huron River located approximately 0.05 miles east and downgradient of the Subject Property. The surface topography in the immediate vicinity of the Subject Property slopes to the east. The direction of shallow groundwater flow typically mimics the ground surface contours, moving from topographic highs to topographic lows. This assumes that all lakes, rivers,

streams, wetlands, and/or other surface water bodies are interconnected expressions of the water table. As such, groundwater is expected to flow in an eastern direction towards the Huron River.

- The EDR Report reported no geocoded sites within the minimum ASTM-specified search distances. In addition, seven (7) non-geocoded listings were reviewed. Of the seven (7) non-geocoded properties identified by EDR, none appear to be of environmental concern in relation to the Subject Property and were eliminated from further consideration due to location, distance, cross- or downgradient position relative to the Subject Property (with a local estimated direction of ground water flow in an easterly direction towards the Huron River) and/or database listing.
- Washtenaw County is in the 40 to 50 percentile of homes with screening levels greater than 4 pCi/l. Therefore, the risk of radon levels in the area could potentially be an environmental concern in structures on the Subject Property.

This assessment has revealed evidence of the following RECs in connection with the Subject Property.

1. At the time of MSG's site reconnaissance, one (1) approximate 275-gallon steel aboveground storage tank (AST) and seven (7) approximate 5-gallon steel containers potentially used for gasoline, grease, and/or oil were observed within the garage, the storage shed, on the ground adjacent to the storage shed and in conjunction with poor housekeeping. Furthermore, partially buried and surficial debris consisting of steel, steel fence, steel and clay pipes, wood planks, plastic, glass panels, shattered glass, clay chimney flu, and/or old farm equipment were observed adjacent to the storage shed, in the northeast portion of the Subject Property, and in conjunction with poor housekeeping. The presence of the aforementioned are representative of a REC relative to the Subject Property and warrants further investigation. The City may wish to have the above mentioned removed from the Subject Property and properly disposed and/or recycled and, upon removal, assess soil and groundwater in the vicinity of the above mentioned.
2. At the time of MSG's site reconnaissance, one (1) 55-gallon steel drum was observed in the basement of the house. The contents of this drum are unknown; therefore, has the potential to contain hazardous substances and/or petroleum products that could represent a material threat to the public or the environment and is representative of a REC relative to the Subject Property that warrants further investigation. The City may wish to remove from the Subject Property, properly dispose, and/or recycle this drum.
3. At the time of MSG's site reconnaissance, stained concrete was observed adjacent to the northwest corner of the garage of the house. In addition, upon investigation of the stained concrete, a petroleum-like odor was noted. The presence of the stained concrete and associated petroleum-like odor is representative of a REC relative to the Subject Property and warrants further investigation. The City may wish to assess soil and groundwater in the vicinity of the stained concrete.
4. A potential vent pipe was observed in the southeast corner of the Subject Property at the time of MSG's site reconnaissance. This potential vent pipe may be associated with an underground storage tank (UST) conceivably associated with the former buildings located in this area. The presence of this potential vent pipe is representative of a REC relative to the Subject Property and warrants further investigation. The City may wish to have a GPR investigation or exploratory excavation completed to determine if this is a vent pipe associated with a UST.
5. Based on the age of the current building (at least 1955), former buildings (at least 1937), and suspect asbestos containing material (ACM) observed on the ground in the southeastern portion of the Subject Property; there is a potential that asbestos and/or lead-based paint (LBP) could be present; however, an ACM or LBP survey was not part of the scope of work for this Phase I ESA.

MSG has performed a Phase I ESA in general conformance with the scope and limitations of ASTM E 1527-05 on the Subject Property. Any exceptions to, or deletions from, this practice are described in Appendix B of this report.

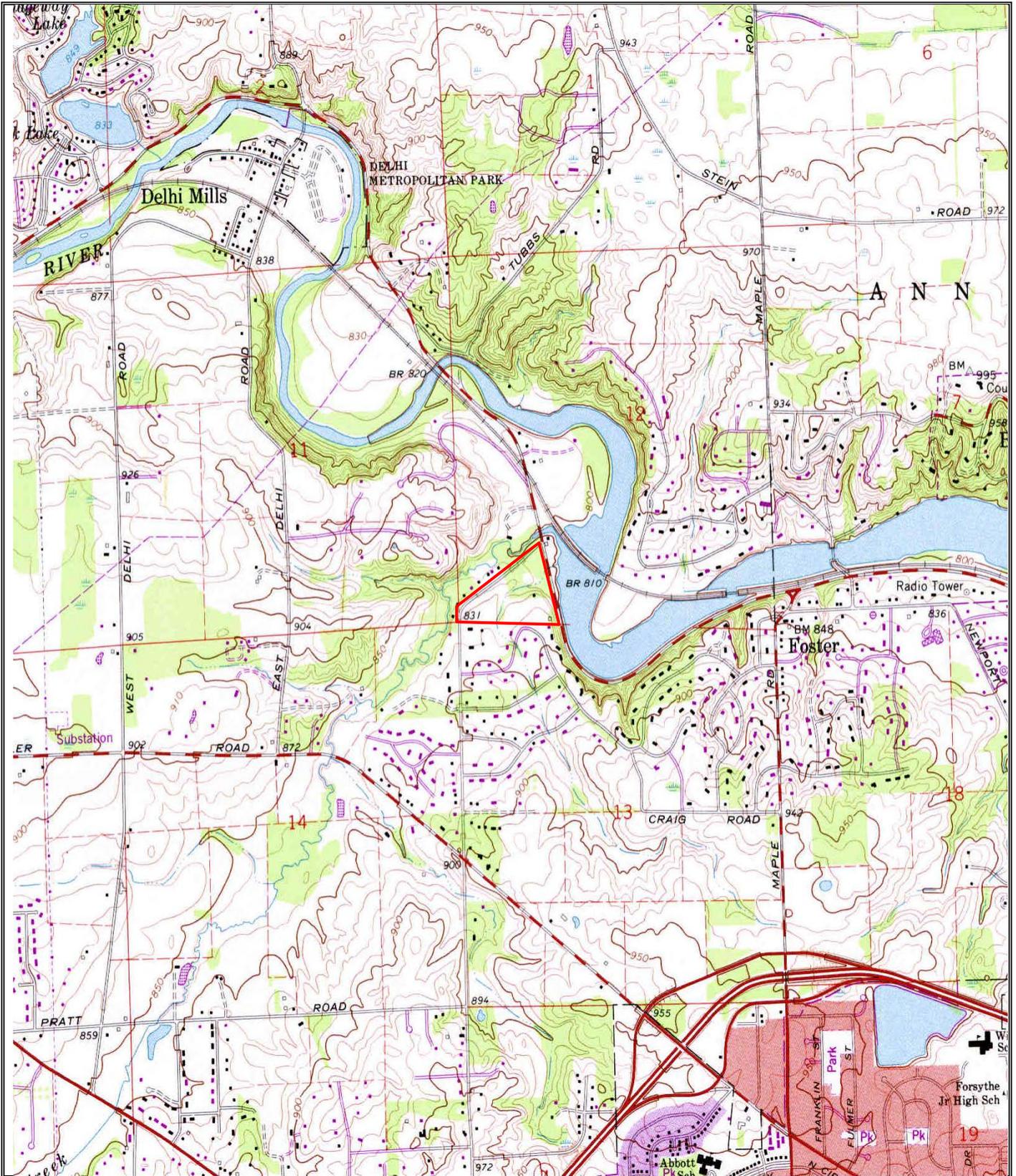
## 9.0 QUALIFICATIONS AND ENVIRONMENTAL PROFESSIONAL STATEMENT

We declare that, to the best of our knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312 and we have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the Subject Property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

A signatory page at the front of this report lists the MSG personnel primarily responsible for the completion of this report. The Phase I ESA site reconnaissance was performed by Mr. Ryan E. Montri. This Phase I ESA was written by Mr. Montri. Mr. Walter J. Bolt, CPG, reviewed and approved the Phase I ESA report. Mr. Montri has over 10 years of experience and Mr. Bolt has over 20 years of experience performing Phase I ESAs. All work associated with the research and development of this report was performed by qualified personnel and was performed in general accordance with ASTM E 1527-05 and EPA's standards for AAI described in *40 CFR Part 312*.

Figures





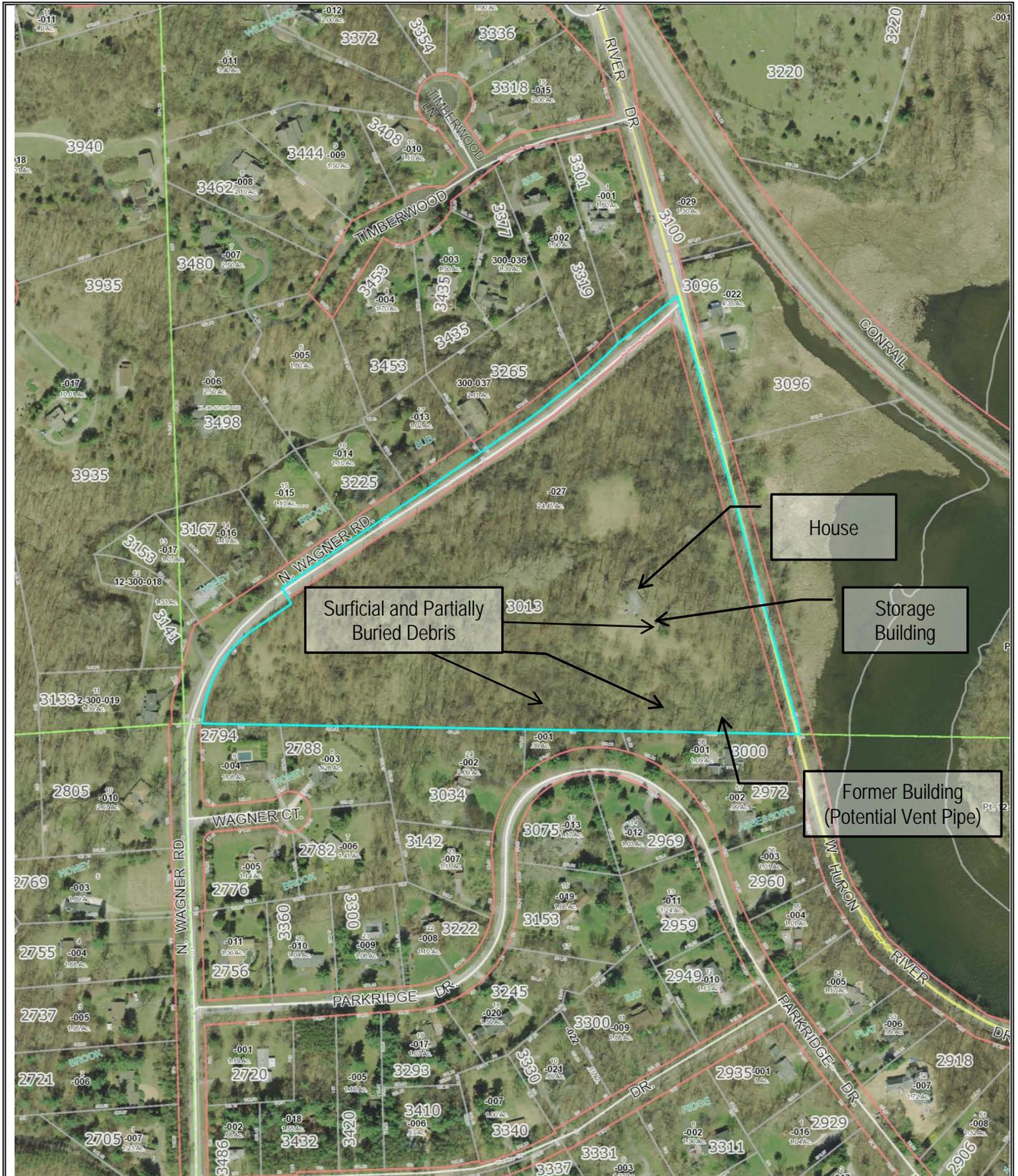
**Figure 2: Site Schematic**  
 Parcel ID: H-08-12-300-027  
 3013 West Huron River Drive  
 Ann Arbor, Washtenaw County,  
 Michigan

Notes: Map adapted from USGS,  
 Ann Arbor West, Michigan  
 Quadrangle 7.5 Minute series dated  
 1983

— Approx. Subject Property Boundary  
 Scale: Not to scale



2365 Haggerty Road South  
 Canton, Michigan 48188  
 Tel: 734.397.3100  
 Fax: 734.397.3131  
 www.MannikSmithGroup.com



Surficial and Partially Buried Debris

House

Storage Building

Former Building (Potential Vent Pipe)



2365 Haggerty Road South  
Canton, Michigan 48188  
Tel: 734.397.3100  
Fax: 734.397.3131  
www.MannikSmithGroup.com

**Figure 2: Site Schematic**  
Parcel ID: H-08-12-300-027  
3013 West Huron River Drive  
Ann Arbor, Washtenaw County,  
Michigan

Notes: Map adapted from  
Washtenaw County GIS  
dated 2012

— Approx. Subject Property Boundary  
Scale: Not to scale



APPENDIX A

SITE RECONNAISSANCE PHOTOGRAPHS





Facing east from the east-central portion of the Subject Property viewing the east adjacent property. West Huron River Drive is viewed in the foreground.



Facing west from the east-central portion of the Subject Property viewing the Subject Property.



Facing south from the east-central portion of the Subject Property viewing the south adjacent property. West Huron River Drive is viewed in the foreground.



Facing north from the east-central portion of the Subject Property viewing the north adjacent property. West Huron River Drive is viewed in the foreground.



Facing east viewing a house located in the west-central portion of the Subject Property.



Viewing stained concrete located adjacent to the house garage door.



Facing east viewing an exterior storage area located adjacent to the house.



Facing north viewing an approximate 100 gallon propane AST located adjacent to the house.



Viewing the interior of the house.



Viewing a 55-gallon drum located in the basement of the house.



Viewing an approximate 275-gallon AST located in the garage of the house.



Viewing stained concrete located adjacent to the previously mentioned 275-gallon AST.



Facing east from the east side of the house viewing a single pole-mounted transformer.



Viewing the non-PCB containing label located on the previously mentioned pole-mounted transformer.



Facing southeast viewing an approximate 100-gallon propane AST and surficial debris consisting of wood, steel, plastic, and glass that was located near a storage shed, south of the house.



Facing northeast viewing surficial debris consisting of wood, steel, plastic, and glass that was located near a storage shed, south of the house.



Viewing three (3) 5-gallon gasoline cans located near a storage shed, south of the house.



Facing southeast viewing surficial debris consisting of wood, steel, plastic, and glass that was located near a storage shed, south of the house.



Facing east viewing the storage shed located south of the house.



Viewing the interior of the storage shed.



Facing east from the southeast corner of the Subject Property viewing the west adjacent property. The Huron River is viewed in the background.



Facing west from the southeast corner of the Subject Property viewing the Subject Property.



Facing south from the southeast corner of the Subject Property viewing the south adjacent property.



Facing north from the southeast corner of the Subject Property viewing the Subject Property.



Facing north from the southeast corner of the Subject Property viewing a potential vent pipe.



Viewing the remnants of a building foundation and a washing machine located in the southeast corner of the Subject Property, adjacent to the aforementioned potential vent pipe.



Facing west from the southeastern portion of the Subject Property viewing surficial debris consisting of window panes, glass and steel.



Facing south from the southeastern portion of the Subject Property viewing surficial debris consisting of glass.



Facing west from the southeastern portion of the Subject Property viewing surficial debris consisting of window panes, glass and steel.



Facing north from the southeastern portion of the Subject Property viewing a stockpile of steel.



Viewing glass that had been placed into a trash can located in the northeastern portion of the Subject Property.



Facing south viewing the glass filled trash cans and surficial debris consisting of a steel pile and glass.



Facing west viewing disturbed land with surficial debris consisting of glass located in the northeastern portion of the Subject Property. A trash can is observed in the background.



Facing north from the southeastern portion of the Subject Property viewing surficial debris consisting of clay pipes. The house is observed in the background.



Facing southwest viewing surficial debris consisting of steel and the aforementioned clay pipes



Facing east from the south-central portion of the Subject Property viewing the Subject Property.



Facing east from the east-central portion of the Subject Property viewing the Subject Property and a pile of steel fence.



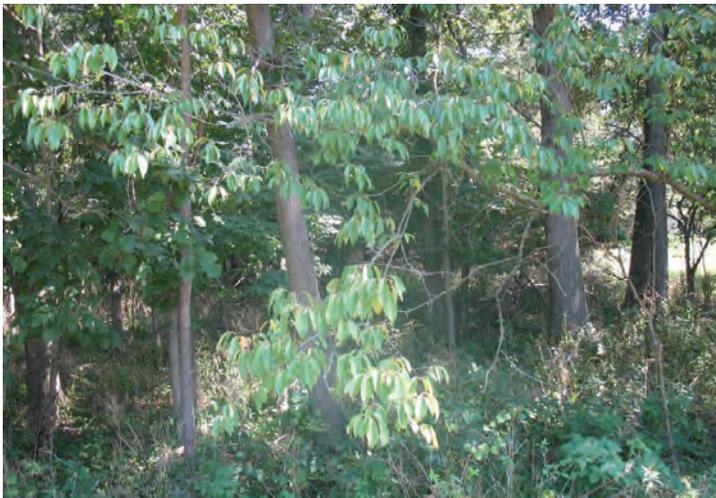
Facing east from the east-central portion of the Subject Property viewing east adjacent property and old farm equipment.



Facing west from the south-central portion of the Subject Property viewing the Subject Property.



Facing south viewing the aforementioned pile of steel fence and farm equipment.



Facing east from the southwest portion of the Subject Property viewing the Subject Property.



Facing west from the southwest portion of the Subject Property viewing the west adjacent property. North Wagner Road is observed in the foreground.



Facing south from the southwest portion of the Subject Property viewing the south adjacent property. North Wagner Road is observed in the foreground.



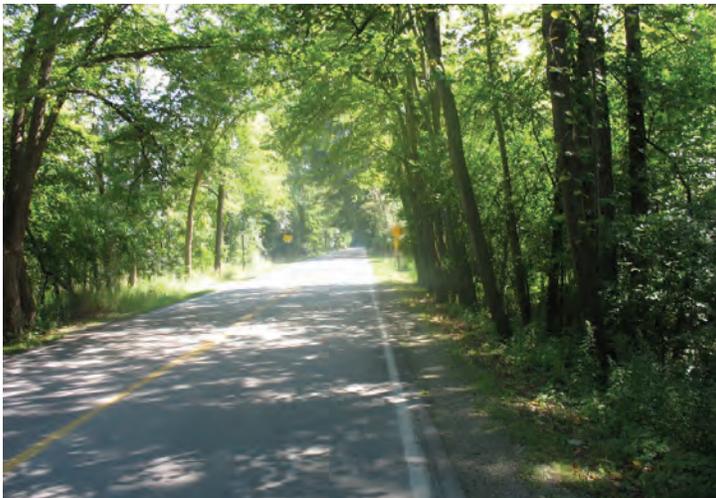
Facing north from the southwest portion of the Subject Property viewing the north adjacent property. North Wagner Road is observed in the foreground.



Facing east from the northeast portion of the Subject Property viewing the east adjacent property. West Huron River Drive is observed in the foreground.



Facing west from the northeast portion of the Subject Property viewing the Subject Property.



Facing south from the northeast portion of the Subject Property viewing the south adjacent property. West Huron River Drive is observed in the foreground.



Facing north from the northeast portion of the Subject Property viewing the north adjacent property. West Huron River Drive is observed in the foreground and the intersection of West Huron River Drive and North Wagner Road is observed in the background.

APPENDIX B  
PHASE I ESA LIMITATIONS



## Significant Assumptions and Reliance on Available Information

In preparing this report, MSG has relied on information contained in the files of federal, state, and local government agencies and files available to MSG at the time of completion of this Phase I ESA. Although there may have been some degree of overlap in the information provided by these sources, MSG did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this assessment.

## Limitations and Exceptions of Assessment

The evaluations and opinions presented in this report were completed by the Mannik & Smith Group (MSG), Inc. in general accordance with the methodologies and protocols recommended by the American Society for Testing and Materials (ASTM) in their document E 1527-05, titled: "*Standard Practice For Environmental Site Assessments: Phase I Environmental Site Assessment Process*". In addition, MSG acts in accordance with Environmental Protection Agency's (EPA) final rule identifying federal standards and processes for conducting All Appropriate Inquiry (AAI) codified in Federal Regulation - *40 Code of Federal Regulations (CFR) Part 312- Standards and Practices for All Appropriate Inquiry*. This Phase I ESA report has been prepared to assist our Client with making a reasonable assessment of potential environmental concerns associated with a property and is intended to reduce, but not necessarily eliminate, uncertainty regarding the potential for RECs to exist. The results of this Phase I ESA should not and cannot be construed as a certification as to the presence or absence of RECs at a property, but rather, as a diligent and prudent review of available information within an established work scope, timeframe and budget.

During the course of this property-specific assessment, various documents, data and information published and obtained from private organizations, as well as municipal, state and federal agencies have been relied upon. No independent verification or confirmation with regard to the accuracy of these documents, data and information has been made, and MSG neither warrants nor guarantees the accuracy or completeness of the information provided by these outside sources.

Undocumented, unauthorized releases of hazardous materials or petroleum products, the remains of which are not readily identifiable by visual inspection, are very difficult and often impossible to detect within the scope of the investigation.

This Phase I ESA report is provided for the exclusive use of our Client, as named within the attached report. This Client has the right to reproduce this Phase I ESA report, in whole or in part, but no other party may rely upon the contents of this report without the expressed written consent of MSG. The reliance of any and all persons, parties, entities or organizations is subject to MSG's Standard Terms and Conditions, unless otherwise specifically agreed to in writing. A copy of MSG's Standard Terms and Conditions can be obtained by contacting MSG.

The findings of this report are valid as of the date indicated. Changes in the Subject Property's condition can occur with the passage of time, whether due to natural processes or the works of man on the site or adjacent properties. Changes in state of the art technologies and/or applicable laws may occur. Due to such changes, the findings of this report may be invalidated wholly or in part by changes beyond the control of MSG.

APPENDIX C

LEGAL DESCRIPTION AND LOCAL MUNICIPAL/COUNTY/STATE DOCUMENTS



**The Mannik & Smith Group, Inc.**  
**2365 Haggerty Road South**  
**Canton, Michigan 48188**

**Property Inspection Field Form**

The following information should be completed during site reconnaissance of the subject property.

**Bold indicates entry by MSG field representative**

Project Number:	<b>ANNA0026</b>
Technical Firm assigned to Project:	<b>The Mannik &amp; Smith Group, Inc. (MSG)</b> <b>2365 Haggerty Road South</b> <b>Canton, Michigan 48188</b>
MSG Phone Number:	<b>Office(734) 397-3100</b> <b>Fax (734) 397-3131</b>
MSG Representative: Title:	<b>Ryan Montri</b> <b>Senior Geologist</b>
Site Reconnaissance should be completed by:	<b><u>September 10, 2013</u></b>
Property Contact (Name, Telephone)	The City agreed to give MSG access to City owned properties as required to perform the necessary Services under this agreement.
Name and Location of property (Address, City, State):	<b>3013 W. Huron River Drive</b> <b>Parcel ID: H-08-12-300-027</b> <b>Ann Arbor, Washtenaw County, Michigan</b>
Site Description (Current Usage):	<b><u>Vacant Woodland</u></b>
Protocols Required (circled protocols only)	

**The Mannik & Smith Group, Inc. Coordinator**

I have called the MSG representative listed above and verbally confirmed this assignment with him / her. This confirmation has been faxed to the MSG representative.

**Ryan Montri**

The Mannik & Smith Group, Inc., Print Name

Signature

Date **9/10/13**

Completed By: **REM**

Date: **September 10, 2013**

Reviewed By: \_\_\_\_\_ Date \_\_\_\_\_

Project Number: ANNA0026

Subject Property Name: **Brokaw Property**

The following points of emphasis have been determined to potentially impact the subject property through interviews and records review. Please pay particular attention to these areas when executing the site reconnaissance. Include all necessary information in appropriate sections of site field forms.

**Surrounding Area**

Property X, Address  
Reason for Emphasis

**North: North Wagner Rd. followed by residential and woodland followed by Timberwood Ln. followed by residential and woodland.**

**South: Woodland followed by Parkridge Dr. followed by residential and woodland followed by Cottontail Ln. and Robinwood Dr.**

**East: North Wagner Rd followed by residential and woodland.**

**West: West Huron River Dr. followed by the Huron River followed by vacant woodland and a railroad.**

**Adjacent Properties**

Property X, Address  
Reason for Emphasis

**North: North Wagner Rd. followed by residential and woodland**

**South: Woodland followed by Parkridge Dr.**

**East: North Wagner Rd followed by residential and woodland.**

**West: West Huron River Dr. followed a single residential building located adjacent to and north of the intersection of North Wagner Rd. and West Huron River Dr. followed by the Huron River**

Property X, Address  
Reason for Emphasis

**Subject Property**

Item on Property / Tanks / Storage  
Reason for Emphasis

**See attached**

**Subject Property Structures**

Item in Property / Storage / Knowledge of Asbestos / Lead / Radon / other  
Reason for Emphasis

**One (1) house of unknown size. House is vacant; however, might have squatters living there. House was in very poor condition with household trash present everywhere. A 275-gallon potential fuel oil AST was observed in the garage. This AST was observed to be in good condition with no rust or holes and no evidence of leaking/stained concrete; however, the exterior portion of the garage concrete slab was heavily stained and had a fuel oil-like odor.**

**Inspector Initials: REM**

**Date: September 10, 2013**

Completed By: **REM**

Date: **September 10, 2013**

Reviewed By: \_\_\_\_\_ Date \_\_\_\_\_

**Project Information**

Project Number: <b>ANNA0026</b>		
Subject Property Name: <b>Brokaw Property</b>		
Subject Property Description: <b>Vacant, woodland</b>		
Subject Property Address: <b>3013 West Huron River Drive</b>		
City: <b>Ann Arbor</b>	State: <b>Michigan</b>	Zip: <b>48103</b>

**Site Reconnaissance Information**

Date of Site Reconnaissance: <b>September 10, 2013</b>	Name of person conducting site reconnaissance:
Time of Site Reconnaissance: <b>1400</b>	<b>Ryan Montri</b>

During the inspection of the site, the inspector: (please circle one of the following)

- Was accompanied and assisted by the site manager.
- Was accompanied, but not assisted by the site manager.
- Was not accompanied by the site manager.**
- Could not find any management to assist in the inspection.
- Other \_\_\_\_\_

Name of manager: **City of Ann Arbor**

The property was inspected: (please circle one of the following)

- On foot**
- From an car
- From a truck
- From a boat
- From an airplane

**Site Reconnaissance General Conditions**

On the day of the site reconnaissance:

The weather was:

- Clear**
- Overcast
- Raining
- Snowing
- Icing / Sleetng
- Other

The grounds were:

- Dry**
- Damp**
- Wet**
- Covered**

If covered, the grounds were covered by:

- Water**
- Ice
- Snow
- Leaves**
- Other

The general temperature range was: **70-75 °F**

**General Site Structure Conditions**

The building foundation type was: **One (1) vacant house of unknown size as observed during MSG's site reconnaissance and is located in the central portion of the Subject Property.**

- Slab on Grade
- Crawlspace
- Basement**
- Other:

The building structure type was:

- Brick**
- Wood Frame
- Steel Structure
- Commercial: \_\_\_\_\_

Building Ventilation is: **N/A**

- Adequate
- Inadequate**
- Describe **House is vacant and in depilated condition**

Total acreage of the property **24.45 acres**

Total square footage of building structure(s) **Unknown**

Age of building structure(s) **Unknown**

Completed By: **REM** Date: **September 10, 2013** Reviewed By: \_\_\_\_\_ Date \_\_\_\_\_

Inspector: Answer questions based on your observations. When answering questions, please circle either **Yes, No or Unknown**. If you answer **Yes**, please give any available details. If you need more space than is provided beneath the question, please enter any additional comments on an attached sheet.

1. Is the property or any adjoining property **currently** used for an industrial use? (More specifically, involved with the use, treatment, storage, disposal or generation of *hazardous substances or petroleum products*). **\*\*Please note Current Land Uses\*\***

				Current Land Use
Subject Property	Yes	<b>No</b>	Unknown	<b><u>Vacant woodland with a vacant house located in the central portion of the Subject Property.</u></b>
North	Yes	<b>No</b>	Unknown	<b><u>Huron River Drive followed by the Huron River</u></b>
South	Yes	<b>No</b>	Unknown	<b><u>Residential</u></b>
East	Yes	<b>No</b>	Unknown	<b><u>Vacant woodland, single residential house and the Huron River</u></b>
West	Yes	<b>No</b>	Unknown	<b><u>Residential</u></b>

2. To the best of your knowledge, has the property or any adjoining property been used for an industrial use in the **past**? (More specifically, involved with the use, treatment, storage, disposal or generation of *hazardous substances or petroleum products*). **\*\*Please note Past Land Uses\*\***

				Past Land Use
Subject Property	Yes	<b>No</b>	Unknown	<b><u>Vacant woodland and residential</u></b>
North	Yes	<b>No</b>	Unknown	<b><u>Huron River Drive followed by the Huron River</u></b>
South	Yes	No	<b><u>Unknown</u></b>	
East	Yes	No	<b><u>Unknown</u></b>	
West	Yes	No	<b><u>Unknown</u></b>	

3. Is the property or any adjoining property **currently** used as a gasoline station, motor repair facility (with or without supplying gas for motor vehicles), commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing or recycling facility?

Subject Property:                      Yes      **No**      Unknown

Gas Station              Motor Repair              Printers                      Dry Cleaners  
 Junkyard              Landfill              Waste Facility              Recycling Facility

Name: \_\_\_\_\_

Adjoining Property North:      Yes      **No**      Unknown

Gas Station              Motor Repair              Printers                      Dry Cleaners  
 Junkyard              Landfill              Waste Facility              Recycling Facility

Name: \_\_\_\_\_

Adjoining Property South:      Yes      **No**      Unknown

Gas Station              Motor Repair              Printers                      Dry Cleaners  
 Junkyard              Landfill              Waste Facility              Recycling Facility

Name: \_\_\_\_\_

Completed By: **REM**      Date: **September 10, 2013**      Reviewed By: \_\_\_\_\_ Date \_\_\_\_\_

Adjoining Property East:    Yes    No    Unknown  
    Gas Station    Motor Repair    Printers    Dry Cleaners  
    Junkyard    Landfill    Waste Facility    Recycling Facility  
 Name: \_\_\_\_\_

Adjoining Property West:    Yes    No    Unknown  
    Gas Station    Motor Repair    Printers    Dry Cleaners  
    Junkyard    Landfill    Waste Facility    Recycling Facility  
 Name: \_\_\_\_\_

4. To the best of your knowledge has the property or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility **in the past?**

Subject Property	Yes	<u>No</u>	Unknown
North	Yes	<u>No</u>	Unknown
South	Yes	<u>No</u>	Unknown
East	Yes	<u>No</u>	Unknown
West	Yes	<u>No</u>	Unknown

Describe: \_\_\_\_\_

5. Are there any of the following contaminants: toxic waste, acids, caustic alkalis, heavy metals, lead, asbestos, spent solvents, waste explosives or any other known contaminants that could harm the air, water, or soil and/or that could affect either the surface or sub-surface of the land.

Yes    No    Unknown

Describe: **Suspect ACM was observed in the NE portions of the Subject Property and potentially within the house; however, none was readily observed.**

6. Are there currently or, to the best of your knowledge, have there been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal (19 L) in volume, of 50 gal (190 L), in the aggregate (or total amount), stored on or used at the property or at the facility?

Batteries	<u>No</u>	Yes	>5 gal	>50 gal
Pesticides	<u>No</u>	Yes	>5 gal	>50 gal
Paints	<u>No</u>	Yes	>5 gal	>50 gal
Chemicals	<u>No</u>	Yes	>5 gal	>50 gal

Describe: \_\_\_\_\_

7. Are there currently, or to the best of your knowledge have there been previously, any industrial drums [typically 55 gal (208 L)] or sacks of chemicals located on the property or at the facility?

Industrial Drums	Yes	<u>No</u>	Unknown
Sacks of Chemicals	Yes	<u>No</u>	Unknown

Describe: \_\_\_\_\_

Completed By: **REM**    Date: **September 10, 2013**    Reviewed By: \_\_\_\_\_ Date \_\_\_\_\_

8. Has fill dirt been brought onto the property that originated from a contaminated site or from an unknown source?

Yes No Unknown

Describe:

9. On the property, does there appear to be any:

buried structures	<u>Yes</u>	No	Unk	unnatural mounds	Yes	<u>No</u>	Unk
buried debris	<u>Yes</u>	No	Unk	depressions	<u>Yes</u>	No	Unk

Describe: **Potential former house (Former foundation observed) located in the NE corner of the Subject Property. Surficial debris consisting of steel, glass, plastic, wood was observed to be partially buried and located adjacent to the storage shed.**

10. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?

Pits	Yes	<u>No</u>	Unk	Lagoons	Yes	<u>No</u>	Unk
Ponds	Yes	<u>No</u>	Unk				

Describe: \_\_\_\_\_

11. Is there currently, or to the best of your knowledge has there been previously, any stained or discolored soil on the property?

Stained	Yes	<u>No</u>	Unk	Discolored	Yes	No	Unk
---------	-----	-----------	-----	------------	-----	----	-----

Describe: **No soils were observed to be stained; however, the concrete slab located outside and adjacent to the garage door was observed to be heavily stained and a fuel oil-like odor was noted.**

12. Are there currently or, to the best of your knowledge, have there been previously any registered or unregistered storage tanks (above or underground) located on the property?

Yes No Unknown

Describe: **275-gallon AST (potentially fuel oil) located within the garage of the house. A suspect vent pipe is located in the NE corner of the Subject Property, adjacent to the former building foundation. Potential UST associated with this vent pipe.**

13. Are there currently, or to the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?

Vent Pipes	<u>Yes</u>	No	Unk
Fill Pipes	<u>Yes</u>	No	Unk
Access Way	Yes	<u>No</u>	Unk

Describe:

**275-gallon AST (potentially fuel oil) located within the garage of the house. A suspect vent pipe is located in the NE corner of the Subject Property, adjacent to the former building foundation. Potential UST associated with this vent pipe.**

Completed By: **REM**

Date: **September 10, 2013**

Reviewed By: \_\_\_\_\_ Date \_\_\_\_\_

14. Are there currently, or to the best of your knowledge have there been previously, any flooring drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?

Flooring drains	Yes	<u>No</u>	Unknown	Stained	Odors
Walls	Yes	<u>No</u>	Unknown	Stained	Odors

Describe: **No structures were observed**

15. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?

Private Well	Yes	<u>No</u>	Unknown	Contaminants identified	Well is contaminated
Non-public	Yes	<u>No</u>	Unknown	Contaminants identified	Well is contaminated

Describe:

Note: Questions 16 through 19 are not used on field inspections.

20. Does the property discharge wastewater on or adjacent to the property other than stormwater into a sanitary sewer system? (Domestic sewage is not a CERCLA issue and the reference to wastewater does not include domestic sewage.)

Subject Property	Yes	<u>No</u>	Unknown
North	Yes	<u>No</u>	Unknown
South	Yes	<u>No</u>	Unknown
East	Yes	<u>No</u>	Unknown
West	Yes	<u>No</u>	Unknown

Describe:

Drain traps:        are present        are not present.

They lead to \_\_\_\_\_

The purpose of drainage pipes at the facility is \_\_\_\_\_

(Examples: Restaurant, service station oil/water separators or grease traps)

21. To the best of your knowledge, have any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the property?

Material	<u>Dumping Above Grade</u>		<u>Burning On Site</u>		<u>Burying On Site</u>	
	<u>Yes</u>	No	Yes	<u>No</u>	Yes	<u>No</u>
Hazardous Substances	<u>Yes</u>	No	Yes	<u>No</u>	Yes	<u>No</u>
Petroleum Products	<u>Yes</u>	No	Yes	<u>No</u>	Yes	<u>No</u>
Liquid Waste Products	<u>Yes</u>	No	Yes	<u>No</u>	Yes	<u>No</u>
Solid Waste Products	<u>Yes</u>	No	Yes	<u>No</u>	<u>Yes</u>	No
Unidentified Waste Products	Yes	<u>No</u>	Yes	<u>No</u>	Yes	<u>No</u>
Tires	Yes	<u>No</u>	Yes	<u>No</u>	Yes	<u>No</u>
Batteries	Yes	<u>No</u>	Yes	<u>No</u>	Yes	<u>No</u>

Describe: **See attached**

22. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs? PCB's are polychlorinated biphenols are were used in cooling oils and electrical insulating materials.

Electric Transformer	No	<u>Yes</u>
Electric Capacitor	<u>No</u>	Yes

Hydraulic Elevator            No    Yes  
Hydraulic Lift/s              No    Yes

Describe (Registration/Serial Number): **One (1) pole-mounted transformer was observed and located adjacent to and north of the house. This pole-mounted transformer was labeled as non-PCB containing.**

I hereby attest that the information contained in this Site Reconnaissance Form was visually and physically observed by me and is both true and accurate to the best of my knowledge.

Inspector Name: **Ryan Montri**                      Date: **September 10, 2013**

## Washtenaw County Parcel Summary

This data is received from local cities, villages, and townships. For additional information or verification, please contact your local city, village or township assessor, the Washtenaw County Clerk/Register of Deeds at (734)222-6710 or the Washtenaw County Department of Equalization at (734)222-6662.

Information herein deemed reliable but **not** guaranteed.

### Parcel Identification

Parcel Number:	H -08-12-300-027
City, Village, or Township:	TOWNSHIP OF SCIO
Parcel Status:	ACTIVE
Property Address Street Number, Name & Direction	3013 W HURON RIVER DR
Property City, State, Zip Code	ANN ARBOR MI, 48103
School District Number & Name	81010 ANN ARBOR PUBLIC SCHOOLS
Property Classification	401 RESIDENTIAL

### Taxpayer Identification -- Year 2014

Taxpayer Name 1:	BROKAW, JOSEPH D (2014)
Taxpayer Name 2:	
Taxpayer Mailing Address:	4721 BROQUET DR
Taxpayer City, State, Zip Code:	NORTHVILLE, MI, 48167

### Assessment

Year	State Equalized Value	Taxable Value	Principal Residence Exemption %
2013	\$251,600.00	\$192,476.00	100
2012	\$249,400.00	\$187,965.00	100

### Sales

Sale Date:	02/03/1988	Sale Price:	\$10,000.00
Liber-Page:	2253:0035	Last Update:	

## Washtenaw County Legal Description

This data is received from local cities, villages, and townships. For additional information or verification, please contact your local city, village or township assessor, the Washtenaw County Clerk/Register of

Deeds at (734)222-6710 or the Washtenaw County Department of Equalization at (734)222-6662.

#### Parcel Identification

Parcel Number:	H -08-12-300-027
Property Address Street Number, Name & Direction	3013 W HURON RIVER DR
City, Village, or Township:	TOWNSHIP OF SCIO

Legal Description:	COM AT SW COR SEC OF 12, TH S 84-59-29 E 48.10 FT FOR POB, TH 407.00 FT ALG ARC OF CURVE TO RIGHT, RAD 530.31 FT, CHD N 37-34-51 E 397.08 FT, TH N 30-26-00 W 66.00 FT, TH N 57-14-00 E 850.00 FT, TH N 51-10-00 E 426.00 FT, TH S 13-34-00 E 420.00 FT, TH S 10-58-45 E 808.15 FT, TH N 84-59-29 W 1527.39 FT TO POB. PT SW 1/4 SEC 12, T2S-R5E, 24.45 AC.
--------------------	---

## Washtenaw County Sales History

This data is received from local cities, villages, and townships. For additional information or verification, please contact your local city, village or township assessor, the Washtenaw County Clerk/Register of Deeds at (734)222-6710 or the Washtenaw County Department of Equalization at (734)222-6662.

#### Parcel Identification

Parcel Number:	H -08-12-300-027
Property Address Street Number, Name & Direction	3013 W HURON RIVER DR
City, Village, or Township:	TOWNSHIP OF SCIO

Liber-Page:	Sale Date	Instrument	Sale Price
-------------	-----------	------------	------------

2253:0035	02/03/1988	WARRANTY DEED	\$10,000.00



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Records

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Monthly  
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Fulfillment

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**Washtenaw County Delinquent Tax  
Order Items**

The charge for Delinquent Tax Search is \$.25/year with a minimum of \$.50. This minimum applies even if there are no Delinquent Taxes. Your request is summarized below.

Parcel Number	Type	Total Price
H -08-12-300-027	Delinquent Tax Search	\$0.75
<b>Grand Total:</b>		<b>\$0.75</b>



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## Parcel Information

The information below summarizes the parcel you selected.

<b>Parcel</b>	H -08-12-300-020
<b>Address</b>	3013 W HURON RIVER DR
<b>Owner</b>	BROKAW JOSEPH D
<b>Owner Address</b>	3013 W HURON RIVER DR ANN ARBOR MI 48103

Parcel Information	
<b>Zoning</b>	Scio Twp
<b>Legal Description</b>	*OLD SID - H 08-012-025-00 SC 12-8 BEG AT SW COR OF SEC, TH N 18 DEG 21' E 240.30 FT MAKING A NE'LY ANGLE OF 18 DEG 21' WITH THE W LINE OF SEC, TH N 57 DEG 14' E 1132.82 FT, TH N 51 DEG 10' E 203.60 FT TO THE 805 FT CONTOUR ON W'LY BANK OF HURON RIVER, TH
<b>Census Tract</b>	

Projects/Permits Associated with this Parcel Record		
<b>Case Number:</b>	<b>Description:</b>	<b>Status:</b>

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## Ryan Montri - FOIA Request

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**From:** Ryan Montri  
**To:** Lucas, Jim (DEQ)  
**Date:** 9/6/2013 2:52 PM  
**Subject:** FOIA Request  
**Attachments:** Ryan Montri.vcf

---

The Mannik and Smith Group, Inc. (MSG) has been retained to perform a Phase I Environmental Site Assessment (ESA) for the parcel identification H-08-12-300-027, which is approximately 24 acres and addressed as follows:

**3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan**

To aid in the completion of the Phase I ESA, MSG is requesting any information available such as files pertaining to underground storage tanks (USTs), above ground storage tanks (ASTs), hazardous substances or petroleum products that would indicate an existing or past release associated with the aforementioned address, or other environmental related issues associated with the aforementioned address.

If there are any questions please contact the undersigned at, 734-397-3100.

Thank you,

*Ryan E. Montri, Senior Geologist  
The Mannik & Smith Group, Inc.  
2365 Haggerty Road South  
Canton, MI 48188  
Phone: 734-397-3100  
Fax: 734-397-3131*



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**Ryan Montri - Response to the FOIA Request Dated 9/6/13**

---

**From:** "Lucas, Jim (LARA)" <LUCASJ@michigan.gov>  
**To:** Ryan Montri <RMontri@manksmithgroup.com>  
**Date:** 9/9/2013 12:05 PM  
**Subject:** Response to the FOIA Request Dated 9/6/13

---

Ryan Montri: In response to your September 6, 2013 Freedom of Information Act (FOIA), MCL 15.231 et seq., request I have researched 3013 West Huron River Drive, Ann Arbor, Washtenaw County, Michigan in the Storage Tank Database. I did not locate any evidence of Registered Storage Tanks at either of these addresses. Consequently, your request is denied. Pursuant to MCL 15.235, Section 5 (4)(b) of the Michigan FOIA, I certify that to the best of my knowledge, information, and belief the records requested do not exist within this Department under the name given by you, or other reasonably known names.

Effective December 2, 2012, the Aboveground & Underground Storage Tank Regulatory programs were transferred from the DEQ to the Department of Licensing and Regulatory Affairs (DLARA). The Leaking Underground Storage Tank cleanup program remains in the DEQ.

For all FOIA requests related to the Leaking Underground Storage Tank programs and Remediation, you may wish to submit your request directly to [DEQFOIA@michigan.gov](mailto:DEQFOIA@michigan.gov).

If you have any questions please feel free to contact me at [lucasj@michigan.gov](mailto:lucasj@michigan.gov) or (517) 335-7279.

Per MCL 15.240 of the Michigan FOIA, you may submit an appeal regarding the denial of any portion of your FOIA request to Mr. Steve Arwood, Director, Michigan Department of Licensing and Regulatory Affairs, Attention, Michael Zimmer, Chief Deputy Director, P.O. Box 30004, Lansing, MI 48909. Your appeal must include the work "appeal" and identify the reasons for reversal of any disclosure denial; or (2) you may seek judicial review in circuit court within 180 days after the Department's final determination. If you prevail in court action, the court may award you reasonable attorney fees, costs, and disbursements, If the court finds the Department's actions to be arbitrary and capricious, the court shall award you, in addition to any actual or compensatory damages, punitive damages in the amount of \$500.00. Jim Lucas.



# FACSIMILE

To:	<u>FOIA Officer</u> <u>Ann Arbor Fire Department</u>	From:	<u>Ryan Montri</u>
Fax:	<u>(734) 994-8814</u>	Date:	<u>September 6, 2013</u>
Phone:	<u>(734) 794-6961</u>	Pages:	<u>1</u>
Re:	<u>FOIA Request</u>	Project #:	<u>ANNA0026</u>

The attached items are transmitted as checked below:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> For review                | <input type="checkbox"/> Please comment | <input type="checkbox"/> Urgent            |
| <input checked="" type="checkbox"/> Please Reply   | <input type="checkbox"/> As requested   | <input type="checkbox"/> Approved as noted |
| <input checked="" type="checkbox"/> Please Recycle | <input type="checkbox"/> Other: _____   |  |

Remarks:

The Mannik and Smith Group, Inc. (MSG) has been retained to perform a Phase I Environmental Site Assessment (ESA) for the parcel identification H-08-12-300-027, which is approximately 24 acres and addressed as follows:

**3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan**

To aid in the completion of the Phase I ESA, MSG is requesting any information available such as files pertaining to underground storage tanks (USTs), above ground storage tanks (ASTs), hazardous substances or petroleum products that would indicate an existing or past release associated with the aforementioned address, or other environmental related issues associated with the aforementioned address.

If there are any questions please contact the undersigned at, 734-397-3100.

Thank you,

Ryan E. Montri  
*Senior Environmental Scientist*

Copies To: ANNA0026  
\_\_\_\_\_  
\_\_\_\_\_

Signed: \_\_\_\_\_  
Printed: Ryan E Montri  
Senior Environmental Scientist

*(If there are any problems in transmission or I have sent you something in error, please advise).*

Confidentiality Statement:

The information contained in this facsimile is intended for the personal and confidential use of the above-named person(s). If the bearer/reader of this message is not said person (or, the employee responsible for delivering facsimiles) then you are notified of erroneous reception of this facsimile and any review, copying, or distribution of this facsimile is prohibited.

## Ryan Montri - FOIA REQUEST

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**From:** Ryan Montri  
**To:** DEQ FOIA  
**Date:** 9/6/2013 3:10 PM  
**Subject:** FOIA REQUEST  
**Attachments:** Ryan Montri.vcf

---

The Mannik and Smith Group, Inc. (MSG) has been retained to perform a Phase I Environmental Site Assessment (ESA) for the parcel identification H-08-12-300-027, which is approximately 24 acres and addressed as follows:

**3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan**

To aid in the completion of the Phase I ESA, MSG is requesting any information available such as files pertaining to hazardous substances or petroleum products that would indicate an existing or past release or other environmental related issues associated with the aforementioned address.

If there are any questions please contact the undersigned at, 734-397-3100.

Thank you,

*Ryan E. Montri, Senior Geologist  
The Mannik & Smith Group, Inc.  
2365 Haggerty Road South  
Canton, MI 48188  
Phone: 734-397-3100  
Fax: 734-397-3131*

 *Please consider the environment before printing this e-mail. Reduce, Reuse, Recycle.*

## Ryan Montri - Request for Disclosure of Official Files

---

**From:** DEQFOIA <DEQFOIA@michigan.gov>  
**To:** "Ryan Montri (RMontri@manniksmithgroup.com)" <RMontri@manniksmithgroup.com>  
**Date:** 9/16/2013 2:45 PM  
**Subject:** Request for Disclosure of Official Files

---

Mr. Ryan Montri  
The Mannik & Smith Group, Inc.  
2365 Haggerty Road South  
Canton, MI 48188

Dear Mr. Montri:

SUBJECT: Request for Disclosure of Official Files – Remediation and Redevelopment Division

This notice is issued in response to your request for information under the Freedom of Information Act, 1976 PA 442, as amended (FOIA), received on September 9, 2013. You have requested information that you describe as "3013 West Huron River Drive, Ann Arbor" (FOIA 5528-13).

The purpose of the FOIA is to provide the public with access to existing, nonexempt public records of public bodies. Your request to examine or receive a copy of the documents described above is denied.

To the best of this public body's knowledge, information, and belief, the public record does not exist under the name given by the requester, or by another name reasonably known to the public body.

Under section 10 of the FOIA, you may do either of the following:

- 1) Appeal this decision in writing to the Director of the Department of Environmental Quality, P.O. Box 30473, Lansing, Michigan 48909-7973. The writing must specifically state the word "appeal," and must identify the reason or reasons you believe the denial should be reversed. The head of the department, or his designee, must respond to your appeal within 10 days after its receipt. Under unusual circumstances, the time for response to your appeal may be extended by 10 business days.
- 2) File an action in circuit court within 180 days after the date of the final determination to deny the request. If you prevail in such an action, the court is to award reasonable attorney fees, costs, and disbursements. Further, if the court finds the denial to be arbitrary and capricious, you may receive punitive damages in the amount of \$500.00.

Susan Vorce, FOIA Coordinator  
Office of Environmental Assistance  
Department of Environmental Quality  
800-662-9278  
[deqfoia@michigan.gov](mailto:deqfoia@michigan.gov)

The DEQ strives to continually improve its customer service to FOIA requesters. To provide input for improvements to the FOIA process, please complete this survey: <https://www.surveymonkey.com/s/foiaprocess>



**Ryan Montri - Request for Disclosure of Official Files**

---

**From:** DEQFOIA <DEQFOIA@michigan.gov>  
**To:** "Ryan Montri (RMontri@manniksmithgroup.com)" <RMontri@manniksmithgroup.com>  
**Date:** 9/17/2013 8:13 AM  
**Subject:** Request for Disclosure of Official Files

---

Mr. Ryan Montri  
The Mannik & Smith Group, Inc.  
2365 Haggerty Road South  
Canton, MI 48188

Dear Mr. Montri:

SUBJECT: Request for Disclosure of Official Files – Resource Management Division and Water Resources Division

This notice is issued in response to your request for information under the Freedom of Information Act, 1976 PA 442, as amended (FOIA), received on September 9, 2013. You have requested the following information: "3013 West Huron River Drive, Ann Arbor" (FOIA 5528-13).

The purpose of the FOIA is to provide the public with access to existing, nonexempt public records of public bodies. Your request to examine or receive a copy of the documents described above is denied.

To the best of this public body's knowledge, information, and belief, the public record does not exist under the name given by the requester, or by another name reasonably known to the public body.

Under section 10 of the FOIA, you may do either of the following:

- 1) Appeal this decision in writing to the Director of the Department of Environmental Quality, P.O. Box 30473, Lansing, Michigan 48909-7973. The writing must specifically state the word "appeal," and must identify the reason or reasons you believe the denial should be reversed. The head of the department, or his designee, must respond to your appeal within 10 days after its receipt. Under unusual circumstances, the time for response to your appeal may be extended by 10 business days.
- 2) File an action in circuit court within 180 days after the date of the final determination to deny the request. If you prevail in such an action, the court is to award reasonable attorney fees, costs, and disbursements. Further, if the court finds the denial to be arbitrary and capricious, you may receive punitive damages in the amount of \$500.00.

Susan Vorce, FOIA Coordinator  
Office of Environmental Assistance  
Department of Environmental Quality  
800-662-9278  
[deqfoia@michigan.gov](mailto:deqfoia@michigan.gov)

The DEQ strives to continually improve its customer service to FOIA requesters. To provide input for improvements to the FOIA process, please complete this survey: <https://www.surveymonkey.com/s/foiaprocess>



**Ryan Montri - Request for Disclosure of Official Files**

---

**From:** DEQFOIA <DEQFOIA@michigan.gov>  
**To:** "Ryan Montri (RMontri@manniksmithgroup.com)" <RMontri@manniksmithgroup.com>  
**Date:** 9/13/2013 9:13 AM  
**Subject:** Request for Disclosure of Official Files

---

Mr. Ryan Montri  
The Mannik & Smith Group, Inc.  
2365 Haggerty Road South  
Canton, MI 48188

Dear Mr. Montri:

SUBJECT: Request for Disclosure of Official Files – Air Quality Division

This notice is issued in response to your request for information under the Freedom of Information Act, 1976 PA 442, as amended (FOIA), received on September 9, 2013. You have requested information that you describe as "3013 West Huron River Drive, Ann Arbor" (FOIA 5528-13).

The purpose of the FOIA is to provide the public with access to existing, nonexempt public records of public bodies. Your request to examine or receive a copy of the documents described above is denied.

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- 1) Appeal this decision in writing to the Director of the Department of Environmental Quality, P.O. Box 30473, Lansing, Michigan 48909-7973. The writing must specifically state the word "appeal," and must identify the reason or reasons you believe the denial should be reversed. The head of the department, or his designee, must respond to your appeal within 10 days after its receipt. Under unusual circumstances, the time for response to your appeal may be extended by 10 business days.
- 2) File an action in circuit court within 180 days after the date of the final determination to deny the request. If you prevail in such an action, the court is to award reasonable attorney fees, costs, and disbursements. Further, if the court finds the denial to be arbitrary and capricious, you may receive punitive damages in the amount of \$500.00.

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**Ryan Montri - Request for Disclosure of Official Files**

---

**From:** DEQFOIA <DEQFOIA@michigan.gov>  
**To:** "Ryan Montri (RMontri@manniksmithgroup.com)" <RMontri@manniksmithgroup.com>  
**Date:** 9/9/2013 8:19 AM  
**Subject:** Request for Disclosure of Official Files

---

Mr. Ryan Montri  
The Mannik & Smith Group, Inc.  
2365 Haggerty Road South  
Canton, MI 48188

Dear Mr. Montri:

SUBJECT: Request for Disclosure of Official Files

This notice is issued in response to your request for information under the Freedom of Information Act, 1976 PA 442, as amended (FOIA), received on September 9, 2013. You have requested information that you describe as "3013 West Huron River Drive, Ann Arbor."

Please refer to the following tracking code if you have any questions: **FOIA 5528-13.**

Your request will be forwarded to the following divisions: AQD, RD, RMD, WRD\*

You will be contacted by the division(s) on or before: 9/16/2013

Susan Vorce, FOIA Coordinator  
Office of Environmental Assistance  
Department of Environmental Quality  
800-662-9278  
[deqfoia@michigan.gov](mailto:deqfoia@michigan.gov)

**\*Abbreviations**

**AQD – Air Quality Division**  
**RD - Remediation and Redevelopment Division**  
**RMD - Resource Management Group**  
**WRD - Water Resources Division**

The DEQ strives to continually improve its customer service to FOIA requestors. To provide input for improvements to the FOIA process, please complete this survey: <https://www.surveymonkey.com/s/foiaprocess>





# FACSIMILE

**To:** FOIA Officer  
Washtenaw County Health Department

**From:** Ryan Montri

**Fax:** (734) 222-3930

**Date:** September 6, 2013

**Phone:** (734) 222-3800

**Pages:** 1

**Re:** FOIA Request

**Project #:** ANNA0026

The attached items are transmitted as checked below:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> For review                | <input type="checkbox"/> Please comment | <input type="checkbox"/> Urgent            |
| <input checked="" type="checkbox"/> Please Reply   | <input type="checkbox"/> As requested   | <input type="checkbox"/> Approved as noted |
| <input checked="" type="checkbox"/> Please Recycle | <input type="checkbox"/> Other: _____   |  |

Remarks:

The Mannik and Smith Group, Inc. (MSG) has been retained to perform a Phase I Environmental Site Assessment (ESA) for the parcel identification H-08-12-300-027, which is approximately 24 acres and addressed as follows:

**3013 West Huron River Drive  
Ann Arbor, Washtenaw County, Michigan**

To aid in the completion of the Phase I ESA, MSG is requesting any information available such as files pertaining to water well/septic tank records, hazardous substances or petroleum products that would indicate an existing or past release, or other environmental related issues associated with the aforementioned address.

If there are any questions please contact the undersigned at, 734-397-3100.

Thank you,

Ryan E. Montri  
*Senior Environmental Scientist*

Copies To: ANNA0026  
\_\_\_\_\_  
\_\_\_\_\_

Signed: \_\_\_\_\_  
Printed: Ryan E Montri  
Senior Environmental Scientist

*(If there are any problems in transmission or I have sent you something in error, please advise).*

Confidentiality Statement:

The information contained in this facsimile is intended for the personal and confidential use of the above-named person(s). If the bearer/reader of this message is not said person (or, the employee responsible for delivering facsimiles) then you are notified of erroneous reception of this facsimile and any review, copying, or distribution of this facsimile is prohibited.

PHONE CONVERSATION RECORD

Route To:

Conversation with:


Name: Tangie Hargrove

Date: 9/16/2013

Company: Washtenaw County Environmental Health Department

Time: 0:00

Address: \_\_\_\_\_

Originator Placed Call

X Originator Rec'd Call

Phone: 734-222-3800

Project No(s). \_\_\_\_\_

Subject: FOIA Request Response

Notes:

Ms. Hargrove contacted MSG on September 16, 2013 regarding MSG's FOIA request for 3013 West Huron River Drive located in Ann Arbor, Michigan. Ms. Hargrove stated that the records pertaining to the Subject Property does not exist at the Washtenaw County Environmental Health Department.

Follow up Action:

None
------

Tickle file: \_\_\_\_\_

Follow-up by: \_\_\_\_\_

Originator's initials: REM

APPENDIX D

EDR RADIUS MAP™ REPORT

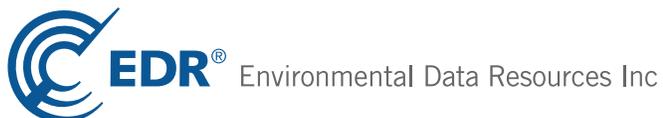


**Brokaw Property**

3013 West Huron River Drive  
Ann Arbor, MI 48103

Inquiry Number: 3719601.2s  
September 05, 2013

# The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road  
Milford, CT 06461  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
 Please contact EDR at 1-800-352-0050  
 with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

3013 WEST HURON RIVER DRIVE  
ANN ARBOR, MI 48103

#### COORDINATES

Latitude (North): 42.3156000 - 42° 18' 56.16"  
Longitude (West): 83.7969000 - 83° 47' 48.84"  
Universal Transverse Mercator: Zone 17  
UTM X (Meters): 269500.4  
UTM Y (Meters): 4688393.0  
Elevation: 821 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 42083-C7 ANN ARBOR WEST, MI  
Most Recent Revision: 1983

### AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year: 2012  
Source: USDA

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal NPL site list***

NPL..... National Priority List

## EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites  
NPL LIENS..... Federal Superfund Liens

### ***Federal Delisted NPL site list***

Delisted NPL..... National Priority List Deletions

### ***Federal CERCLIS list***

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
FEDERAL FACILITY..... Federal Facility Site Information listing

### ***Federal CERCLIS NFRAP site List***

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

### ***Federal RCRA CORRACTS facilities list***

CORRACTS..... Corrective Action Report

### ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

### ***Federal RCRA generators list***

RCRA-LQG..... RCRA - Large Quantity Generators  
RCRA-SQG..... RCRA - Small Quantity Generators  
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

### ***Federal institutional controls / engineering controls registries***

US ENG CONTROLS..... Engineering Controls Sites List  
US INST CONTROL..... Sites with Institutional Controls  
LUCIS..... Land Use Control Information System

### ***Federal ERNS list***

ERNS..... Emergency Response Notification System

### ***State- and tribal - equivalent CERCLIS***

SHWS..... Contaminated Sites

### ***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF..... Solid Waste Facilities Database

### ***State and tribal leaking storage tank lists***

LUST..... Leaking Underground Storage Tank Sites  
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### ***State and tribal registered storage tank lists***

UST..... Underground Storage Tank Facility List

## EXECUTIVE SUMMARY

AST..... Aboveground Tanks  
INDIAN UST..... Underground Storage Tanks on Indian Land  
FEMA UST..... Underground Storage Tank Listing

### ***State and tribal institutional control / engineering control registries***

AUL..... Engineering and Institutional Controls

### ***State and tribal voluntary cleanup sites***

INDIAN VCP..... Voluntary Cleanup Priority Listing

### ***State and tribal Brownfields sites***

BROWNFIELDS..... Brownfields and UST Site Database

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### ***Local Brownfield lists***

US BROWNFIELDS..... A Listing of Brownfields Sites

#### ***Local Lists of Landfill / Solid Waste Disposal Sites***

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations  
ODI..... Open Dump Inventory  
SWRCY..... Recycling Facilities  
HIST LF..... Inactive Solid Waste Facilities  
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

#### ***Local Lists of Hazardous waste / Contaminated Sites***

US CDL..... Clandestine Drug Labs  
DEL SHWS..... Delisted List of Contaminated Sites  
CDL..... Clandestine Drug Lab Listing  
US HIST CDL..... National Clandestine Laboratory Register

#### ***Local Land Records***

LIENS 2..... CERCLA Lien Information  
LIENS..... Lien List

#### ***Records of Emergency Release Reports***

HMIRS..... Hazardous Materials Information Reporting System  
SPILLS..... Pollution Emergency Alerting System

#### ***Other Ascertainable Records***

RCRA NonGen / NLR..... RCRA - Non Generators  
DOT OPS..... Incident and Accident Data  
DOD..... Department of Defense Sites  
FUDS..... Formerly Used Defense Sites  
CONSENT..... Superfund (CERCLA) Consent Decrees

## EXECUTIVE SUMMARY

ROD.....	Records Of Decision
UMTRA.....	Uranium Mill Tailings Sites
US MINES.....	Mines Master Index File
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS.....	Section 7 Tracking Systems
ICIS.....	Integrated Compliance Information System
PADS.....	PCB Activity Database System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
FINDS.....	Facility Index System/Facility Registry System
RAATS.....	RCRA Administrative Action Tracking System
RMP.....	Risk Management Plans
UIC.....	Underground Injection Wells Database
DRYCLEANERS.....	Drycleaning Establishments
NPDES.....	List of Active NPDES Permits
AIRS.....	Permit and Emissions Inventory Data
BEA.....	BASELINE ENVIRONMENTAL ASSESSMENT DATABASE
INDIAN RESERV.....	Indian Reservations
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
PRP.....	Potentially Responsible Parties
LEAD SMELTERS.....	Lead Smelter Sites
WDS.....	Waste Data System
EPA WATCH LIST.....	EPA WATCH LIST
US FIN ASSUR.....	Financial Assurance Information
PCB TRANSFORMER.....	PCB Transformer Registration Database
2020 COR ACTION.....	2020 Corrective Action Program List
COAL ASH.....	Coal Ash Disposal Sites
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
Financial Assurance.....	Financial Assurance Information Listing

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR US Hist Auto Stat.....	EDR Exclusive Historic Gas Stations
EDR US Hist Cleaners.....	EDR Exclusive Historic Dry Cleaners

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 7 records.

<u>Site Name</u>	<u>Database(s)</u>
UNIV OF MICH HOSPITAL FULLER RD	SHWS
M14 ROLLOVER	CERCLIS
ST JOSEPH MERCY HEALTH SYSTEM	LUST, UST
ANN ARBOR PIPE & SUPPLY	LUST, UST
MI DEPT/NATURAL RESOURCES AND ENVI	RCRA NonGen / NLR
MI DEPT/TRANSPORTATION	RCRA NonGen / NLR, FINDS
PARCELS B & C	BEA

# OVERVIEW MAP - 3719601.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

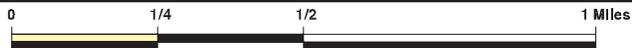
Dept. Defense Sites

Indian Reservations BIA

Oil & Gas pipelines from USGS

National Wetland Inventory

State Wetlands

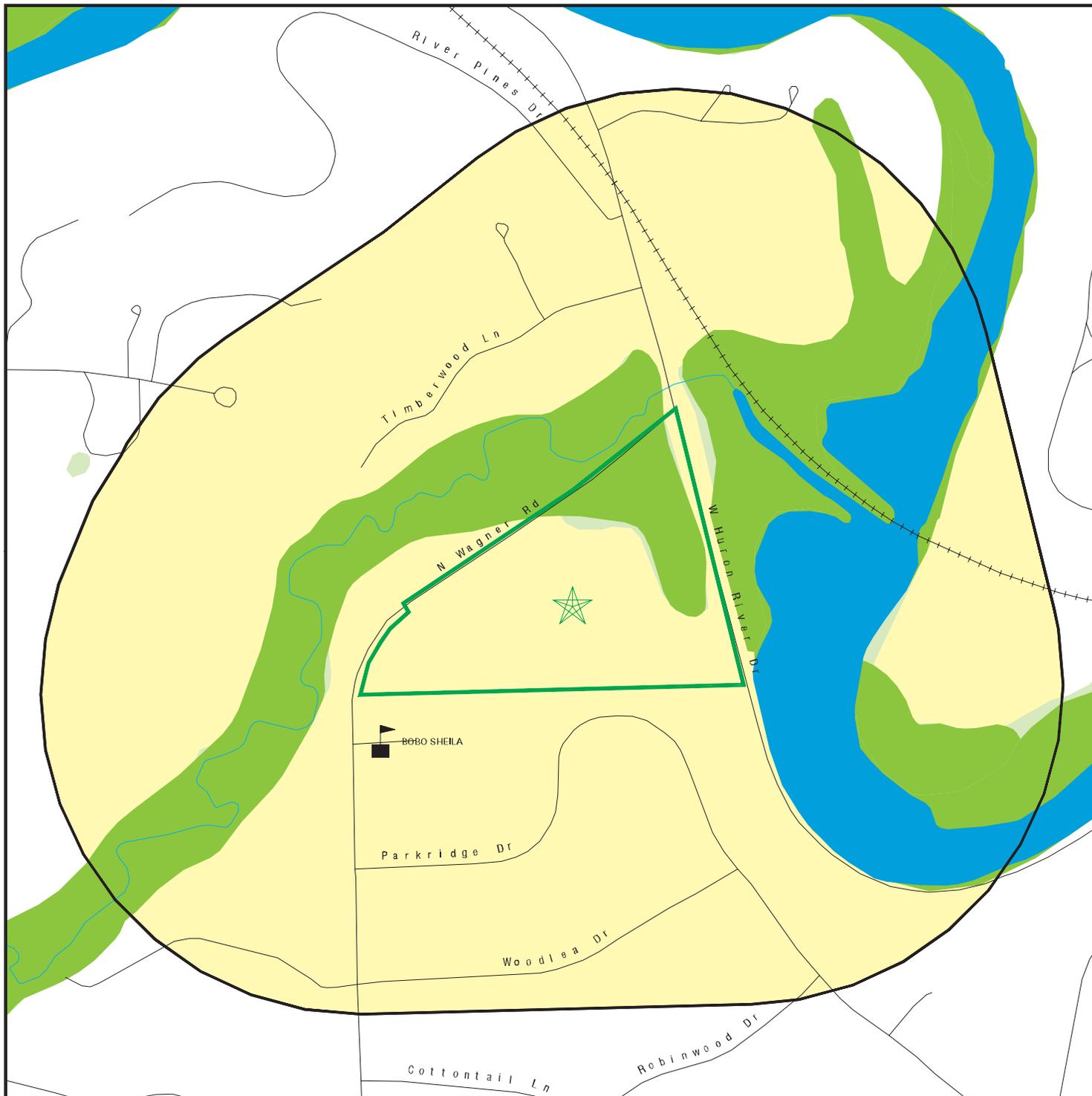


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Brokaw Property  
 ADDRESS: 3013 West Huron River Drive  
 Ann Arbor MI 48103  
 LAT/LONG: 42.3156 / 83.7969

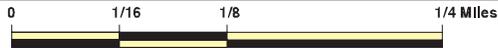
CLIENT: The Mannik & Smith Group  
 CONTACT: Ryan Montri  
 INQUIRY #: 3719601.2s  
 DATE: September 05, 2013 3:18 pm

# DETAIL MAP - 3719601.2s



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  Oil & Gas pipelines from USGS
-  National Wetland Inventory
-  State Wetlands



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Brokaw Property  
 ADDRESS: 3013 West Huron River Drive  
 Ann Arbor MI 48103  
 LAT/LONG: 42.3156 / 83.7969

CLIENT: The Mannik & Smith Group  
 CONTACT: Ryan Montri  
 INQUIRY #: 3719601.2s  
 DATE: September 05, 2013 3:19 pm

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site List</i></b>								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		0	0	0	0	NR	0
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent CERCLIS</i></b>								
SHWS	1.000		0	0	0	0	NR	0
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0
<b><i>State and tribal leaking storage tank lists</i></b>								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
<b><i>State and tribal registered storage tank lists</i></b>								
UST	0.250		0	0	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
<b>State and tribal institutional control / engineering control registries</b>								
AUL	0.500		0	0	0	NR	NR	0
<b>State and tribal voluntary cleanup sites</b>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b>State and tribal Brownfields sites</b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>ADDITIONAL ENVIRONMENTAL RECORDS</b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US CDL	TP		NR	NR	NR	NR	NR	0
DEL SHWS	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
<b>Local Land Records</b>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
<b>Records of Emergency Release Reports</b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
BEA	0.500		0	0	0	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0

#### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

NO SITES FOUND

Count: 7 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ANN ARBOR	S109847381	PARCELS B & C	1600TH HURON PKWY & 3200 PLYM	48105	BEA
ANN ARBOR	1007102345	MI DEPT/NATURAL RESOURCES AND ENVI	E BANK OF ARGO POND IN HURON R	48103	RCRA NonGen / NLR
ANN ARBOR	1015731350	M14 ROLLOVER	S BOUND RAMP	48103	CERCLIS
ANN ARBOR	S103595056	UNIV OF MICH HOSPITAL FULLER RD	FULLER RD	48103	SHWS
ANN ARBOR	U000266453	ST JOSEPH MERCY HEALTH SYSTEM	5301 E HURON RIVER DR	48105	LUST, UST
ANN ARBOR	U003758877	ANN ARBOR PIPE & SUPPLY	20295 STATE		LUST, UST
ANN ARBOR	1001202468	MI DEPT/TRANSPORTATION	USHY 23 UNDERANNARBORPLYMOUTH	48105	RCRA NonGen / NLR, FINDS

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

#### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/09/2013	Telephone: N/A
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

#### **NPL Site Boundaries**

##### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

#### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/09/2013	Telephone: N/A
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

#### **NPL LIENS: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal Delisted NPL site list***

### DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/09/2013	Telephone: N/A
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

## ***Federal CERCLIS list***

### CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/29/2013	Telephone: 703-412-9810
Date Made Active in Reports: 08/09/2013	Last EDR Contact: 08/30/2013
Number of Days to Update: 72	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Quarterly

### FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/09/2012	Telephone: 703-603-8704
Date Made Active in Reports: 12/20/2012	Last EDR Contact: 07/08/2013
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Varies

## ***Federal CERCLIS NFRAP site List***

### CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/29/2013	Telephone: 703-412-9810
Date Made Active in Reports: 08/09/2013	Last EDR Contact: 08/30/2013
Number of Days to Update: 72	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Quarterly

## ***Federal RCRA CORRACTS facilities list***

### CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/12/2013  
Date Data Arrived at EDR: 02/21/2013  
Date Made Active in Reports: 02/27/2013  
Number of Days to Update: 6

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

## ***Federal RCRA non-CORRACTS TSD facilities list***

### **RCRA-TSDF: RCRA - Treatment, Storage and Disposal**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/18/2013  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 08/09/2013  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 312-886-6186  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

## ***Federal RCRA generators list***

### **RCRA-LQG: RCRA - Large Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/18/2013  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 08/09/2013  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 312-886-6186  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

### **RCRA-SQG: RCRA - Small Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/18/2013  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 08/09/2013  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 312-886-6186  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

### **RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/18/2013  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 08/09/2013  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 312-886-6186  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal institutional controls / engineering controls registries***

### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/14/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/29/2013	Telephone: 703-603-0695
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/14/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/29/2013	Telephone: 703-603-0695
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 08/15/2013
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/02/2013
	Data Release Frequency: Varies

## ***Federal ERNS list***

### ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/17/2013	Telephone: 202-267-2180
Date Made Active in Reports: 02/15/2013	Last EDR Contact: 07/01/2013
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Annually

## ***State- and tribal - equivalent CERCLIS***

### SHWS: Contaminated Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 01/28/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 01/30/2013	Telephone: 517-373-9541
Date Made Active in Reports: 02/28/2013	Last EDR Contact: 08/07/2013
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **State and tribal landfill and/or solid waste disposal site lists**

### SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/01/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 07/03/2013	Telephone: 517-335-4035
Date Made Active in Reports: 08/01/2013	Last EDR Contact: 07/02/2013
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Semi-Annually

## **State and tribal leaking storage tank lists**

### LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/13/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/22/2013	Telephone: 517-373-9837
Date Made Active in Reports: 06/14/2013	Last EDR Contact: 08/19/2013
Number of Days to Update: 23	Next Scheduled EDR Contact: 12/02/2013
	Data Release Frequency: Annually

### INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2013	Telephone: 415-972-3372
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

### INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012	Source: EPA Region 7
Date Data Arrived at EDR: 02/28/2013	Telephone: 913-551-7003
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

### INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011	Source: EPA Region 6
Date Data Arrived at EDR: 09/13/2011	Telephone: 214-665-6597
Date Made Active in Reports: 11/11/2011	Last EDR Contact: 07/24/2013
Number of Days to Update: 59	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

### INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/05/2013	Source: EPA Region 10
Date Data Arrived at EDR: 02/06/2013	Telephone: 206-553-2857
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 65	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012	Source: EPA Region 8
Date Data Arrived at EDR: 08/28/2012	Telephone: 303-312-6271
Date Made Active in Reports: 10/16/2012	Last EDR Contact: 07/24/2013
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

## INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/28/2012	Source: EPA Region 1
Date Data Arrived at EDR: 11/01/2012	Telephone: 617-918-1313
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 08/02/2013
Number of Days to Update: 162	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

## INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/06/2013	Source: EPA Region 4
Date Data Arrived at EDR: 02/08/2013	Telephone: 404-562-8677
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Semi-Annually

### **State and tribal registered storage tank lists**

#### UST 2: Underground Storage Tank Listing

A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 04/25/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/25/2013	Telephone: 517-335-7211
Date Made Active in Reports: 05/09/2013	Last EDR Contact: 07/18/2013
Number of Days to Update: 14	Next Scheduled EDR Contact: 11/04/2013
	Data Release Frequency: Annually

#### UST: Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 05/13/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/22/2013	Telephone: 517-335-4035
Date Made Active in Reports: 06/14/2013	Last EDR Contact: 08/19/2013
Number of Days to Update: 23	Next Scheduled EDR Contact: 12/02/2013
	Data Release Frequency: Annually

#### AST: Aboveground Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 02/21/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 02/26/2013	Telephone: 517-373-8168
Date Made Active in Reports: 03/29/2013	Last EDR Contact: 08/15/2013
Number of Days to Update: 31	Next Scheduled EDR Contact: 12/02/2013
	Data Release Frequency: No Update Planned

#### INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/28/2012  
Date Data Arrived at EDR: 11/07/2012  
Date Made Active in Reports: 04/12/2013  
Number of Days to Update: 156

Source: EPA, Region 1  
Telephone: 617-918-1313  
Last EDR Contact: 08/02/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

### INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/06/2013  
Date Data Arrived at EDR: 02/08/2013  
Date Made Active in Reports: 04/12/2013  
Number of Days to Update: 63

Source: EPA Region 4  
Telephone: 404-562-9424  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Semi-Annually

### INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/02/2012  
Date Data Arrived at EDR: 08/03/2012  
Date Made Active in Reports: 11/05/2012  
Number of Days to Update: 94

Source: EPA Region 5  
Telephone: 312-886-6136  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

### INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011  
Date Data Arrived at EDR: 05/11/2011  
Date Made Active in Reports: 06/14/2011  
Number of Days to Update: 34

Source: EPA Region 6  
Telephone: 214-665-7591  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Semi-Annually

### INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 02/28/2013  
Date Made Active in Reports: 04/12/2013  
Number of Days to Update: 43

Source: EPA Region 7  
Telephone: 913-551-7003  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

### INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/27/2012  
Date Data Arrived at EDR: 08/28/2012  
Date Made Active in Reports: 10/16/2012  
Number of Days to Update: 49

Source: EPA Region 8  
Telephone: 303-312-6137  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Quarterly

### INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/05/2013  
Date Data Arrived at EDR: 02/06/2013  
Date Made Active in Reports: 04/12/2013  
Number of Days to Update: 65

Source: EPA Region 10  
Telephone: 206-553-2857  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Quarterly

## INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/21/2013  
Date Data Arrived at EDR: 02/26/2013  
Date Made Active in Reports: 04/12/2013  
Number of Days to Update: 45

Source: EPA Region 9  
Telephone: 415-972-3368  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Quarterly

## FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010  
Date Data Arrived at EDR: 02/16/2010  
Date Made Active in Reports: 04/12/2010  
Number of Days to Update: 55

Source: FEMA  
Telephone: 202-646-5797  
Last EDR Contact: 07/19/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Varies

## ***State and tribal institutional control / engineering control registries***

### AUL: Engineering and Institutional Controls

A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 03/26/2013  
Date Data Arrived at EDR: 03/29/2013  
Date Made Active in Reports: 05/09/2013  
Number of Days to Update: 41

Source: Dept of Environmental Quality  
Telephone: 517-373-4828  
Last EDR Contact: 09/03/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: Varies

## ***State and tribal voluntary cleanup sites***

### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/28/2012  
Date Data Arrived at EDR: 10/02/2012  
Date Made Active in Reports: 10/16/2012  
Number of Days to Update: 14

Source: EPA, Region 1  
Telephone: 617-918-1102  
Last EDR Contact: 07/02/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Varies

### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008  
Date Data Arrived at EDR: 04/22/2008  
Date Made Active in Reports: 05/19/2008  
Number of Days to Update: 27

Source: EPA, Region 7  
Telephone: 913-551-7365  
Last EDR Contact: 04/20/2009  
Next Scheduled EDR Contact: 07/20/2009  
Data Release Frequency: Varies

## ***State and tribal Brownfields sites***

### BROWNFIELDS: Brownfields and USTfield Site Database

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/27/2012  
Date Data Arrived at EDR: 07/31/2012  
Date Made Active in Reports: 09/20/2012  
Number of Days to Update: 51

Source: Dept of Environmental Quality  
Telephone: 517-373-4805  
Last EDR Contact: 07/26/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

## BROWNFIELDS 2: Brownfields Building and Land Site Locations

A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detroit Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007  
Date Data Arrived at EDR: 04/10/2007  
Date Made Active in Reports: 05/01/2007  
Number of Days to Update: 21

Source: Economic Development Corporation  
Telephone: 888-522-0103  
Last EDR Contact: 09/03/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: Varies

## ADDITIONAL ENVIRONMENTAL RECORDS

### **Local Brownfield lists**

#### US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/24/2013  
Date Data Arrived at EDR: 06/25/2013  
Date Made Active in Reports: 08/09/2013  
Number of Days to Update: 45

Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Last EDR Contact: 08/05/2013  
Next Scheduled EDR Contact: 10/07/2013  
Data Release Frequency: Semi-Annually

### **Local Lists of Landfill / Solid Waste Disposal Sites**

#### DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009  
Date Data Arrived at EDR: 05/07/2009  
Date Made Active in Reports: 09/21/2009  
Number of Days to Update: 137

Source: EPA, Region 9  
Telephone: 415-947-4219  
Last EDR Contact: 07/26/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: No Update Planned

#### ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985  
Date Data Arrived at EDR: 08/09/2004  
Date Made Active in Reports: 09/17/2004  
Number of Days to Update: 39

Source: Environmental Protection Agency  
Telephone: 800-424-9346  
Last EDR Contact: 06/09/2004  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SWRCY: Recycling Facilities

A listing of recycling center locations.

Date of Government Version: 11/24/2009  
Date Data Arrived at EDR: 09/30/2010  
Date Made Active in Reports: 10/28/2010  
Number of Days to Update: 28

Source: Dept of Environmental Quality  
Telephone: 517-241-5719  
Last EDR Contact: 06/28/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Varies

## HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997  
Date Data Arrived at EDR: 02/28/2003  
Date Made Active in Reports: 03/06/2003  
Number of Days to Update: 6

Source: Dept of Environmental Quality  
Telephone: 517-335-4034  
Last EDR Contact: 02/28/2003  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998  
Date Data Arrived at EDR: 12/03/2007  
Date Made Active in Reports: 01/24/2008  
Number of Days to Update: 52

Source: Environmental Protection Agency  
Telephone: 703-308-8245  
Last EDR Contact: 07/31/2013  
Next Scheduled EDR Contact: 11/18/2013  
Data Release Frequency: Varies

## **Local Lists of Hazardous waste / Contaminated Sites**

### US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/04/2013  
Date Data Arrived at EDR: 03/12/2013  
Date Made Active in Reports: 05/10/2013  
Number of Days to Update: 59

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 09/04/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: Quarterly

### DEL SHWS: Delisted List of Contaminated Sites

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 05/02/2013  
Date Data Arrived at EDR: 05/02/2013  
Date Made Active in Reports: 06/14/2013  
Number of Days to Update: 43

Source: Dept of Environmental Quality  
Telephone: 517-373-9541  
Last EDR Contact: 07/26/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

### CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008  
Date Data Arrived at EDR: 11/18/2008  
Date Made Active in Reports: 11/21/2008  
Number of Days to Update: 3

Source: Department of Community Health  
Telephone: 517-373-3740  
Last EDR Contact: 07/26/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 11/19/2008	Telephone: 202-307-1000
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 03/23/2009
Number of Days to Update: 131	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

## Local Land Records

### LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/25/2013	Telephone: 202-564-6023
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 15	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

### LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC \* 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 04/26/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/29/2013	Telephone: 517-241-7603
Date Made Active in Reports: 05/09/2013	Last EDR Contact: 07/26/2013
Number of Days to Update: 10	Next Scheduled EDR Contact: 11/04/2013
	Data Release Frequency: Varies

## Records of Emergency Release Reports

### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/03/2013	Telephone: 202-366-4555
Date Made Active in Reports: 02/27/2013	Last EDR Contact: 07/01/2013
Number of Days to Update: 55	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Annually

### PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 07/10/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 07/10/2013	Telephone: 517-373-8427
Date Made Active in Reports: 08/01/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 22	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Other Ascertainable Records***

### **RCRA NonGen / NLR: RCRA - Non Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/18/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2013	Telephone: 312-886-6186
Date Made Active in Reports: 08/09/2013	Last EDR Contact: 08/08/2013
Number of Days to Update: 39	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Varies

### **DOT OPS: Incident and Accident Data**

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 08/05/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/18/2013
	Data Release Frequency: Varies

### **DOD: Department of Defense Sites**

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/19/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Semi-Annually

### **FUDS: Formerly Used Defense Sites**

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 02/26/2013	Telephone: 202-528-4285
Date Made Active in Reports: 03/13/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

### **CONSENT: Superfund (CERCLA) Consent Decrees**

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2011	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 01/15/2013	Telephone: Varies
Date Made Active in Reports: 03/13/2013	Last EDR Contact: 06/25/2013
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Varies

### **ROD: Records Of Decision**

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/18/2012	Source: EPA
Date Data Arrived at EDR: 03/13/2013	Telephone: 703-416-0223
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 06/11/2013
Number of Days to Update: 30	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 05/28/2013
Number of Days to Update: 146	Next Scheduled EDR Contact: 09/09/2013
	Data Release Frequency: Varies

## US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/05/2013	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 04/18/2013	Telephone: 303-231-5959
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 09/05/2013
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/16/2013
	Data Release Frequency: Semi-Annually

## TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 09/01/2011	Telephone: 202-566-0250
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 08/30/2013
Number of Days to Update: 131	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Annually

## TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006	Source: EPA
Date Data Arrived at EDR: 09/29/2010	Telephone: 202-260-5521
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 06/25/2013
Number of Days to Update: 64	Next Scheduled EDR Contact: 10/07/2013
	Data Release Frequency: Every 4 Years

## FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/22/2013
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Quarterly

## FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/22/2013
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

## HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 07/24/2013
Number of Days to Update: 77	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Annually

## ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/10/2011	Telephone: 202-564-5088
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 07/01/2013
Number of Days to Update: 61	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Quarterly

## PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2012	Source: EPA
Date Data Arrived at EDR: 01/16/2013	Telephone: 202-566-0500
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 07/17/2013
Number of Days to Update: 114	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/14/2013	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/20/2013	Telephone: 301-415-7169
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/10/2013
Number of Days to Update: 112	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Quarterly

## RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/09/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/11/2013	Telephone: 202-343-9775
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

## FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/08/2013	Source: EPA
Date Data Arrived at EDR: 03/21/2013	Telephone: (312) 353-2000
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 08/15/2013
Number of Days to Update: 111	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Quarterly

## RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

## RMP: Risk Management Plans

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/25/2012	Telephone: 202-564-8600
Date Made Active in Reports: 07/10/2012	Last EDR Contact: 07/24/2013
Number of Days to Update: 46	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011	Source: EPA/NTIS
Date Data Arrived at EDR: 02/26/2013	Telephone: 800-424-9346
Date Made Active in Reports: 04/19/2013	Last EDR Contact: 08/26/2013
Number of Days to Update: 52	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Biennially

### UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 05/06/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/08/2013	Telephone: 517-241-1515
Date Made Active in Reports: 06/14/2013	Last EDR Contact: 07/26/2013
Number of Days to Update: 37	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

### DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 10/22/2012	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 10/24/2012	Telephone: 517-335-4586
Date Made Active in Reports: 11/28/2012	Last EDR Contact: 07/18/2013
Number of Days to Update: 35	Next Scheduled EDR Contact: 11/04/2013
	Data Release Frequency: Annually

### NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 07/08/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 07/10/2013	Telephone: 517-241-1300
Date Made Active in Reports: 08/01/2013	Last EDR Contact: 07/10/2013
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Varies

### AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/27/2013  
Date Data Arrived at EDR: 06/28/2013  
Date Made Active in Reports: 08/01/2013  
Number of Days to Update: 34

Source: Dept of Environmental Quality  
Telephone: 517-373-7074  
Last EDR Contact: 06/24/2013  
Next Scheduled EDR Contact: 10/07/2013  
Data Release Frequency: Varies

## BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

A Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Date of Government Version: 06/06/2013  
Date Data Arrived at EDR: 06/06/2013  
Date Made Active in Reports: 08/01/2013  
Number of Days to Update: 56

Source: Dept of Environmental Quality  
Telephone: 517-373-9541  
Last EDR Contact: 08/15/2013  
Next Scheduled EDR Contact: 12/02/2013  
Data Release Frequency: Semi-Annually

## INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 12/08/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 34

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 07/19/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Semi-Annually

## SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011  
Date Data Arrived at EDR: 03/09/2011  
Date Made Active in Reports: 05/02/2011  
Number of Days to Update: 54

Source: Environmental Protection Agency  
Telephone: 615-532-8599  
Last EDR Contact: 08/01/2013  
Next Scheduled EDR Contact: 11/04/2013  
Data Release Frequency: Varies

## US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 01/23/2013  
Date Data Arrived at EDR: 01/30/2013  
Date Made Active in Reports: 05/10/2013  
Number of Days to Update: 100

Source: EPA  
Telephone: 202-564-5962  
Last EDR Contact: 06/25/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Annually

## LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013  
Date Data Arrived at EDR: 02/14/2013  
Date Made Active in Reports: 02/27/2013  
Number of Days to Update: 13

Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 07/03/2013  
Next Scheduled EDR Contact: 10/21/2013  
Data Release Frequency: Varies

## EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 02/18/2013  
Date Made Active in Reports: 05/10/2013  
Number of Days to Update: 81

Source: Environmental Protection Agency  
Telephone: 617-520-3000  
Last EDR Contact: 08/07/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Quarterly

## US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/04/2013  
Date Data Arrived at EDR: 03/15/2013  
Date Made Active in Reports: 05/10/2013  
Number of Days to Update: 56

Source: Environmental Protection Agency  
Telephone: 202-566-1917  
Last EDR Contact: 08/23/2013  
Next Scheduled EDR Contact: 12/02/2013  
Data Release Frequency: Quarterly

## PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011  
Date Data Arrived at EDR: 10/19/2011  
Date Made Active in Reports: 01/10/2012  
Number of Days to Update: 83

Source: Environmental Protection Agency  
Telephone: 202-566-0517  
Last EDR Contact: 08/02/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

## COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 07/12/2013  
Date Data Arrived at EDR: 07/12/2013  
Date Made Active in Reports: 08/01/2013  
Number of Days to Update: 20

Source: Dept of Environmental Quality  
Telephone: 586-753-3754  
Last EDR Contact: 07/03/2013  
Next Scheduled EDR Contact: 10/21/2013  
Data Release Frequency: Varies

## COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 08/07/2009  
Date Made Active in Reports: 10/22/2009  
Number of Days to Update: 76

Source: Department of Energy  
Telephone: 202-586-8719  
Last EDR Contact: 07/19/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Varies

## COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010  
Date Data Arrived at EDR: 01/03/2011  
Date Made Active in Reports: 03/21/2011  
Number of Days to Update: 77

Source: Environmental Protection Agency  
Telephone: N/A  
Last EDR Contact: 06/14/2013  
Next Scheduled EDR Contact: 09/23/2013  
Data Release Frequency: Varies

## Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 01/08/2013  
Date Data Arrived at EDR: 01/10/2013  
Date Made Active in Reports: 02/28/2013  
Number of Days to Update: 49

Source: Dept of Environmental Quality  
Telephone: 517-335-6610  
Last EDR Contact: 07/03/2013  
Next Scheduled EDR Contact: 10/21/2013  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 02/15/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 02/15/2013	Telephone: 517-373-9875
Date Made Active in Reports: 02/28/2013	Last EDR Contact: 08/23/2013
Number of Days to Update: 13	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Quarterly

## US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 01/23/2013	Source: EPA
Date Data Arrived at EDR: 01/30/2013	Telephone: 202-564-5962
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/25/2013
Number of Days to Update: 100	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Annually

## 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/18/2012	Telephone: 703-308-4044
Date Made Active in Reports: 05/25/2012	Last EDR Contact: 08/16/2013
Number of Days to Update: 7	Next Scheduled EDR Contact: 11/25/2013
	Data Release Frequency: Varies

## LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust.

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/05/2011	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 01/07/2011	Telephone: 517-335-4034
Date Made Active in Reports: 02/14/2011	Last EDR Contact: 06/26/2013
Number of Days to Update: 38	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Varies

## PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/18/2012  
Date Data Arrived at EDR: 04/04/2013  
Date Made Active in Reports: 07/10/2013  
Number of Days to Update: 97

Source: EPA  
Telephone: 202-564-6023  
Last EDR Contact: 07/03/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

## FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 02/06/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 339

Source: U.S. Geological Survey  
Telephone: 888-275-8747  
Last EDR Contact: 07/19/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: N/A

## EDR HIGH RISK HISTORICAL RECORDS

### *EDR Exclusive Records*

#### EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

#### EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

#### EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: N/A  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: N/A  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/20/2013  
Date Data Arrived at EDR: 05/21/2013  
Date Made Active in Reports: 06/27/2013  
Number of Days to Update: 37

Source: Department of Energy & Environmental Protection  
Telephone: 860-424-3375  
Last EDR Contact: 08/19/2013  
Next Scheduled EDR Contact: 12/02/2013  
Data Release Frequency: Annually

### NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011  
Date Data Arrived at EDR: 07/19/2012  
Date Made Active in Reports: 08/28/2012  
Number of Days to Update: 40

Source: Department of Environmental Protection  
Telephone: N/A  
Last EDR Contact: 07/19/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Annually

### NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2013  
Date Data Arrived at EDR: 05/09/2013  
Date Made Active in Reports: 07/10/2013  
Number of Days to Update: 62

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 08/07/2013  
Next Scheduled EDR Contact: 11/18/2013  
Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 07/24/2013  
Date Made Active in Reports: 08/19/2013  
Number of Days to Update: 26

Source: Department of Environmental Protection  
Telephone: 717-783-8990  
Last EDR Contact: 07/18/2013  
Next Scheduled EDR Contact: 11/04/2013  
Data Release Frequency: Annually

## RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 06/21/2013  
Date Made Active in Reports: 08/05/2013  
Number of Days to Update: 45

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 08/23/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Annually

## WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011  
Date Data Arrived at EDR: 07/19/2012  
Date Made Active in Reports: 09/27/2012  
Number of Days to Update: 70

Source: Department of Natural Resources  
Telephone: N/A  
Last EDR Contact: 07/17/2013  
Next Scheduled EDR Contact: 09/30/2013  
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

## Electric Power Transmission Line Data

Source: Rextag Strategies Corp.  
Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

## AHA Hospitals:

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

## Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

## Nursing Homes

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

## Public Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

## Private Schools

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Daycare Centers: Day Care Centers, Group & Family Homes  
Source: Bureau of REgulatory Services  
Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory  
Source: Department of Natural Resources  
Telephone: 517-241-2254

Scanned Digital USGS 7.5' Topographic Map (DRG)  
Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

## **STREET AND ADDRESS INFORMATION**

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## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM**

### **TARGET PROPERTY ADDRESS**

BROKAW PROPERTY  
3013 WEST HURON RIVER DRIVE  
ANN ARBOR, MI 48103

### **TARGET PROPERTY COORDINATES**

Latitude (North):	42.3156 - 42° 18' 56.16"
Longitude (West):	83.7969 - 83° 47' 48.84"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	269500.4
UTM Y (Meters):	4688393.0
Elevation:	821 ft. above sea level

### **USGS TOPOGRAPHIC MAP**

Target Property Map:	42083-C7 ANN ARBOR WEST, MI
Most Recent Revision:	1983

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

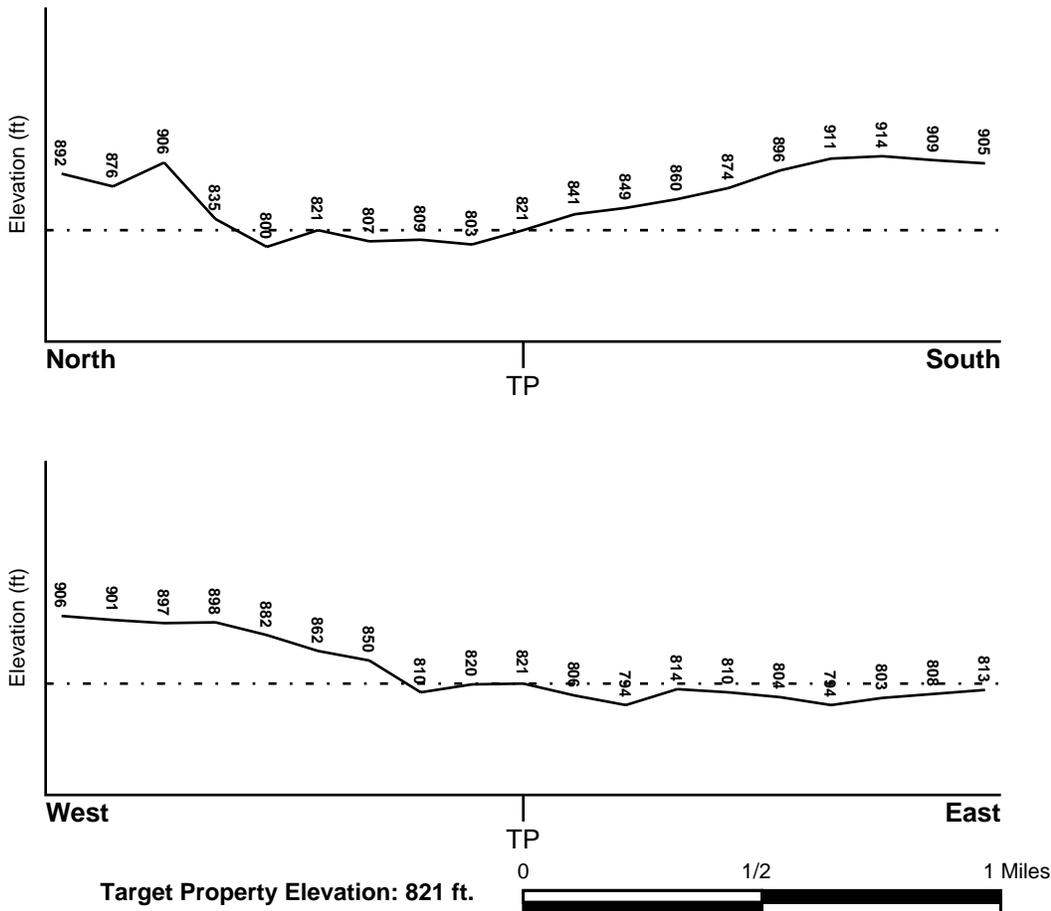
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## **HYDROLOGIC INFORMATION**

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Target Property County</u>	<u>FEMA Flood</u>
WASHTENAW, MI	<u>Electronic Data</u>
	Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	<u>NWI Electronic</u>
ANN ARBOR WEST	<u>Data Coverage</u>
	YES - refer to the Overview Map and Detail Map

## **HYDROGEOLOGIC INFORMATION**

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### ***Site-Specific Hydrogeological Data\*:***

Search Radius:	1.25 miles
Status:	Not found

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION</u>	<u>GENERAL DIRECTION</u>
<u>FROM TP</u>	<u>GROUNDWATER FLOW</u>	
Not Reported		

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

### **ROCK STRATIGRAPHIC UNIT**

Era: Paleozoic  
System: Mississippian  
Series: Osagean and Kinderhookian Series  
Code: M1 (*decoded above as Era, System & Series*)

### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: BOYER

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: LOW

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 7.30 Min: 5.60
2	7 inches	18 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 7.30 Min: 5.60
3	18 inches	34 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 6.00 Min: 2.00	Max: 7.80 Min: 5.60
4	34 inches	60 inches	gravelly - sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 20.00 Min: 20.00	Max: 8.40 Min: 7.40

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand  
muck  
loam

Surficial Soil Types: loamy sand  
muck  
loam

Shallow Soil Types: silty clay loam  
sandy loam  
clay loam

Deeper Soil Types: sand  
sand and gravel  
stratified  
clay loam  
loam

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

coarse sand  
muck

## LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
B1237	USGS40000481761	1/2 - 1 Mile SE

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	MI3000000056928	0 - 1/8 Mile WNW
B2	MI3000000056631	0 - 1/8 Mile South
3	MI3000000057127	1/8 - 1/4 Mile NNE
A4	MI3000000056841	1/8 - 1/4 Mile West
B5	MI3000000056577	1/8 - 1/4 Mile South
C6	MI3000000056660	1/8 - 1/4 Mile SE
C7	MI3000000056584	1/8 - 1/4 Mile SSE
D8	MI3000000056496	1/8 - 1/4 Mile South
9	MI3000000056755	1/8 - 1/4 Mile WSW
E10	MI3000000056472	1/8 - 1/4 Mile SSW
11	MI3000000056552	1/8 - 1/4 Mile SW
E12	MI3000000056459	1/8 - 1/4 Mile SSW
E13	MI3000000056450	1/8 - 1/4 Mile SSW
F14	MI3000000056438	1/8 - 1/4 Mile SSE

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
D15	MI3000000056376	1/8 - 1/4 Mile South
E16	MI3000000056377	1/8 - 1/4 Mile SSW
D17	MI3000000056370	1/8 - 1/4 Mile SSE
E18	MI3000000056362	1/8 - 1/4 Mile SSW
E19	MI3000000056361	1/4 - 1/2 Mile SSW
20	MI3000000057120	1/4 - 1/2 Mile WNW
21	MI3000000056312	1/4 - 1/2 Mile South
E22	MI3000000056319	1/4 - 1/2 Mile SSW
23	MI3000000056516	1/4 - 1/2 Mile SW
G24	MI3000000056329	1/4 - 1/2 Mile SSW
25	MI3000000057336	1/4 - 1/2 Mile NW
F26	MI3000000056311	1/4 - 1/2 Mile SSE
H27	MI3000000056246	1/4 - 1/2 Mile SSE
H28	MI3000000056254	1/4 - 1/2 Mile SSE
H29	MI3000000056240	1/4 - 1/2 Mile SSE
I30	MI3000000056271	1/4 - 1/2 Mile SSE
J31	MI3000000056164	1/4 - 1/2 Mile South
G32	MI3000000056294	1/4 - 1/2 Mile SW
J33	MI3000000056153	1/4 - 1/2 Mile South
K34	MI3000000057006	1/4 - 1/2 Mile ENE
G35	MI3000000056216	1/4 - 1/2 Mile SSW
L36	MI3000000057566	1/4 - 1/2 Mile NNW
L37	MI3000000057499	1/4 - 1/2 Mile NW
K38	MI3000000057155	1/4 - 1/2 Mile ENE
H39	MI3000000056132	1/4 - 1/2 Mile SSE
J40	MI3000000056085	1/4 - 1/2 Mile South
41	MI3000000056105	1/4 - 1/2 Mile SSW
I42	MI3000000056127	1/4 - 1/2 Mile SSE
43	MI3000000057724	1/4 - 1/2 Mile North
M44	MI3000000057494	1/4 - 1/2 Mile NW
N45	MI3000000056120	1/4 - 1/2 Mile SSW
O46	MI3000000056948	1/4 - 1/2 Mile East
47	MI3000000057716	1/4 - 1/2 Mile NNE
P48	MI3000000056049	1/4 - 1/2 Mile SSE
M49	MI3000000057496	1/4 - 1/2 Mile NW
50	MI3000000057139	1/4 - 1/2 Mile ENE
51	MI3000000055951	1/4 - 1/2 Mile South
52	MI3000000056489	1/4 - 1/2 Mile ESE
P53	MI3000000056076	1/4 - 1/2 Mile SSE
54	MI3000000057723	1/4 - 1/2 Mile NNW
N55	MI3000000056052	1/4 - 1/2 Mile SSW
O56	MI3000000057027	1/4 - 1/2 Mile ENE
Q57	MI3000000055874	1/4 - 1/2 Mile South
R58	MI3000000057385	1/4 - 1/2 Mile ENE
R59	MI3000000057323	1/4 - 1/2 Mile ENE
S60	MI3000000056024	1/4 - 1/2 Mile SSE
O61	MI3000000056956	1/4 - 1/2 Mile East
N62	MI3000000055958	1/4 - 1/2 Mile SSW
R63	MI3000000057375	1/4 - 1/2 Mile ENE
M64	MI3000000057630	1/4 - 1/2 Mile NW
Q65	MI3000000055822	1/4 - 1/2 Mile South
T66	MI3000000056020	1/4 - 1/2 Mile SSW

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
R67	MI3000000057337	1/4 - 1/2 Mile ENE
T68	MI3000000056055	1/4 - 1/2 Mile SW
T69	MI3000000055949	1/4 - 1/2 Mile SSW
Q70	MI3000000055792	1/4 - 1/2 Mile South
U71	MI3000000057053	1/4 - 1/2 Mile ENE
S72	MI3000000055946	1/4 - 1/2 Mile SSE
T73	MI3000000056062	1/4 - 1/2 Mile SW
R74	MI3000000057510	1/2 - 1 Mile NE
Q75	MI3000000055735	1/2 - 1 Mile South
V76	MI3000000056416	1/2 - 1 Mile ESE
77	MI3000000056094	1/2 - 1 Mile SE
W78	MI3000000055726	1/2 - 1 Mile South
X79	MI3000000057448	1/2 - 1 Mile ENE
Y80	MI3000000056038	1/2 - 1 Mile SW
X81	MI3000000057357	1/2 - 1 Mile ENE
Z82	MI3000000055768	1/2 - 1 Mile SSW
W83	MI3000000055705	1/2 - 1 Mile SSW
W84	MI3000000055728	1/2 - 1 Mile SSW
T85	MI3000000055891	1/2 - 1 Mile SW
AA86	MI3000000055881	1/2 - 1 Mile SE
87	MI3000000056308	1/2 - 1 Mile WSW
Y88	MI3000000056070	1/2 - 1 Mile SW
U89	MI3000000057063	1/2 - 1 Mile East
U90	MI3000000057061	1/2 - 1 Mile East
U91	MI3000000056974	1/2 - 1 Mile East
AB92	MI3000000056607	1/2 - 1 Mile WSW
AC93	MI3000000056176	1/2 - 1 Mile SE
Y94	MI3000000055916	1/2 - 1 Mile SW
AA95	MI3000000055873	1/2 - 1 Mile SE
V96	MI3000000056493	1/2 - 1 Mile ESE
97	MI3000000057516	1/2 - 1 Mile WNW
Z98	MI3000000055712	1/2 - 1 Mile SSW
99	MI3000000057658	1/2 - 1 Mile NE
100	MI3000000055775	1/2 - 1 Mile SSW
Y101	MI3000000056065	1/2 - 1 Mile SW
AD102	MI3000000055624	1/2 - 1 Mile South
AD103	MI3000000055617	1/2 - 1 Mile South
AE104	MI3000000057125	1/2 - 1 Mile WNW
W105	MI3000000055626	1/2 - 1 Mile South
Z106	MI3000000055722	1/2 - 1 Mile SSW
AD107	MI3000000055605	1/2 - 1 Mile South
X108	MI3000000057582	1/2 - 1 Mile NE
AF109	MI3000000056579	1/2 - 1 Mile ESE
Y110	MI3000000055904	1/2 - 1 Mile SW
Y111	MI3000000055853	1/2 - 1 Mile SW
Z112	MI3000000055658	1/2 - 1 Mile SSW
AG113	MI3000000055788	1/2 - 1 Mile SW
AC114	MI3000000056098	1/2 - 1 Mile SE
AH115	MI3000000055954	1/2 - 1 Mile SW
AB116	MI3000000056590	1/2 - 1 Mile WSW
AF117	MI3000000056609	1/2 - 1 Mile ESE
AI118	MI3000000055595	1/2 - 1 Mile SSW

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
AE119	MI3000000057103	1/2 - 1 Mile West
AJ120	MI3000000058071	1/2 - 1 Mile NNE
AJ121	MI3000000058111	1/2 - 1 Mile NNE
AK122	MI3000000057245	1/2 - 1 Mile ENE
AK123	MI3000000057181	1/2 - 1 Mile ENE
AL124	MI3000000057709	1/2 - 1 Mile NE
125	MI3000000057398	1/2 - 1 Mile WNW
AI126	MI3000000055596	1/2 - 1 Mile SSW
AL127	MI3000000057760	1/2 - 1 Mile NE
AJ128	MI3000000058076	1/2 - 1 Mile NNE
AJ129	MI3000000058137	1/2 - 1 Mile NNE
AM130	MI3000000057526	1/2 - 1 Mile ENE
AN131	MI3000000056972	1/2 - 1 Mile West
AO132	MI3000000057935	1/2 - 1 Mile NE
AG133	MI3000000055706	1/2 - 1 Mile SW
AG134	MI3000000055751	1/2 - 1 Mile SW
AP135	MI3000000057234	1/2 - 1 Mile WNW
AQ136	MI3000000056206	1/2 - 1 Mile ESE
AH137	MI3000000055896	1/2 - 1 Mile SW
AR138	MI3000000056032	1/2 - 1 Mile SE
AS139	MI3000000055609	1/2 - 1 Mile SSW
AS140	MI3000000055651	1/2 - 1 Mile SSW
AT141	MI3000000055818	1/2 - 1 Mile SE
AS142	MI3000000055579	1/2 - 1 Mile SSW
AO143	MI3000000057991	1/2 - 1 Mile NE
144	MI3000000055698	1/2 - 1 Mile SE
AO145	MI3000000058028	1/2 - 1 Mile NNE
AR146	MI3000000055924	1/2 - 1 Mile SE
AU147	MI3000000056186	1/2 - 1 Mile WSW
AV148	MI3000000058185	1/2 - 1 Mile NNW
AQ149	MI3000000056260	1/2 - 1 Mile ESE
150	MI3000000055525	1/2 - 1 Mile SSW
AW151	MI3000000058135	1/2 - 1 Mile NNE
AV152	MI3000000058188	1/2 - 1 Mile NNW
AQ153	MI3000000056301	1/2 - 1 Mile ESE
154	MI3000000056620	1/2 - 1 Mile West
AI155	MI3000000055482	1/2 - 1 Mile SSW
AX156	MI3000000057694	1/2 - 1 Mile NE
AR157	MI3000000055860	1/2 - 1 Mile SE
AP158	MI3000000057165	1/2 - 1 Mile WNW
AM159	MI3000000057480	1/2 - 1 Mile ENE
AR160	MI3000000056013	1/2 - 1 Mile SE
AY161	MI3000000056445	1/2 - 1 Mile ESE
AN162	MI3000000057046	1/2 - 1 Mile West
AY163	MI3000000056379	1/2 - 1 Mile ESE
164	MI3000000057159	1/2 - 1 Mile East
AU165	MI3000000056244	1/2 - 1 Mile WSW
AT166	MI3000000055787	1/2 - 1 Mile SE
AZ167	MI3000000055502	1/2 - 1 Mile SSE
AU168	MI3000000056101	1/2 - 1 Mile WSW
AX169	MI3000000057744	1/2 - 1 Mile NE
AZ170	MI3000000055518	1/2 - 1 Mile SSE

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
AR171	MI3000000055915	1/2 - 1 Mile SE
BA172	MI3000000057361	1/2 - 1 Mile ENE
AZ173	MI3000000055543	1/2 - 1 Mile SSE
BA174	MI3000000057439	1/2 - 1 Mile ENE
BA175	MI3000000057432	1/2 - 1 Mile ENE
AV176	MI3000000058242	1/2 - 1 Mile NNW
177	MI3000000058040	1/2 - 1 Mile NE
178	MI3000000056427	1/2 - 1 Mile WSW
AW179	MI3000000058198	1/2 - 1 Mile NNE
AZ180	MI3000000055522	1/2 - 1 Mile SSE
181	MI3000000055997	1/2 - 1 Mile SW
182	MI3000000055393	1/2 - 1 Mile SSW
AX183	MI3000000057706	1/2 - 1 Mile ENE
BB184	MI3000000056664	1/2 - 1 Mile East
BC185	MI3000000055511	1/2 - 1 Mile SSE
AY186	MI3000000056326	1/2 - 1 Mile ESE
BD187	MI3000000056253	1/2 - 1 Mile WSW
188	MI3000000055872	1/2 - 1 Mile SE
189	MI3000000058243	1/2 - 1 Mile NNW
BD190	MI3000000056183	1/2 - 1 Mile WSW
BE191	MI3000000057721	1/2 - 1 Mile ENE
BE192	MI3000000057801	1/2 - 1 Mile NE
193	MI3000000057145	1/2 - 1 Mile West
BF194	MI3000000056089	1/2 - 1 Mile ESE
BE195	MI3000000057733	1/2 - 1 Mile ENE
196	MI3000000057600	1/2 - 1 Mile ENE
BE197	MI3000000057745	1/2 - 1 Mile ENE
BE198	MI3000000057621	1/2 - 1 Mile ENE
199	MI3000000058344	1/2 - 1 Mile North
BE200	MI3000000057741	1/2 - 1 Mile ENE
BB201	MI3000000056603	1/2 - 1 Mile East
202	MI3000000057695	1/2 - 1 Mile WNW
BC203	MI3000000055524	1/2 - 1 Mile SE
204	MI3000000055611	1/2 - 1 Mile SE
BF205	MI3000000056039	1/2 - 1 Mile ESE
BG206	MI3000000056505	1/2 - 1 Mile ESE
207	MI3000000056097	1/2 - 1 Mile WSW
208	MI3000000055814	1/2 - 1 Mile SW
209	MI3000000057390	1/2 - 1 Mile ENE
BF210	MI3000000056110	1/2 - 1 Mile ESE
BG211	MI3000000056385	1/2 - 1 Mile ESE
BG212	MI3000000056490	1/2 - 1 Mile ESE
BG213	MI3000000056426	1/2 - 1 Mile ESE
BG214	MI3000000056622	1/2 - 1 Mile East
BH215	MI3000000056693	1/2 - 1 Mile East
BI216	MI3000000055848	1/2 - 1 Mile SE
217	MI3000000055237	1/2 - 1 Mile South
218	MI3000000057213	1/2 - 1 Mile East
BF219	MI3000000056014	1/2 - 1 Mile ESE
BF220	MI3000000055931	1/2 - 1 Mile ESE
BG221	MI3000000056572	1/2 - 1 Mile East
BJ222	MI3000000057300	1/2 - 1 Mile WNW

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## STATE DATABASE WELL INFORMATION

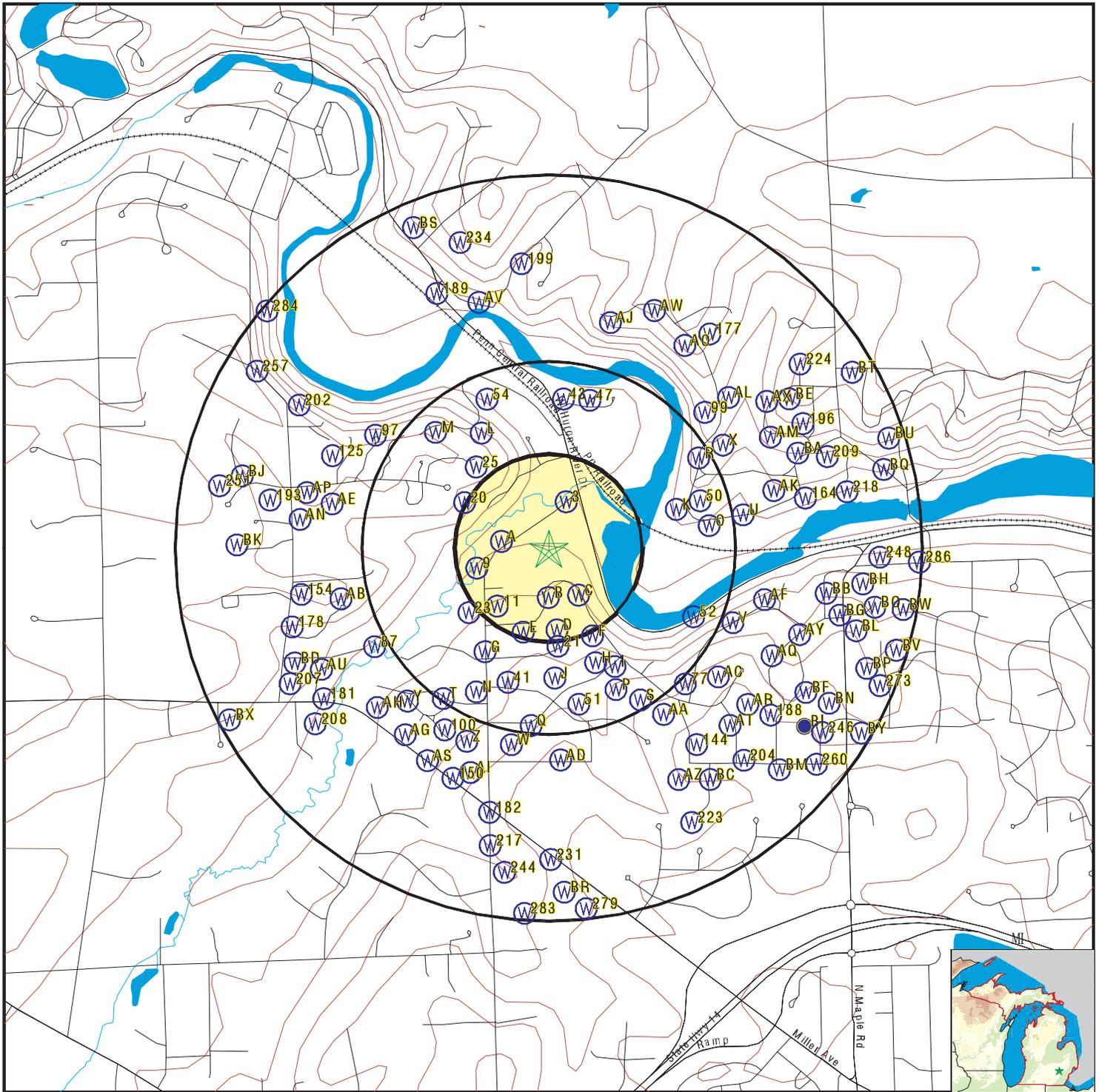
MAP ID	WELL ID	LOCATION FROM TP
223	MI3000000055352	1/2 - 1 Mile SSE
224	MI3000000057900	1/2 - 1 Mile NE
BK225	MI3000000056857	1/2 - 1 Mile West
BK226	MI3000000056856	1/2 - 1 Mile West
BK227	MI3000000056855	1/2 - 1 Mile West
BK228	MI3000000056860	1/2 - 1 Mile West
BK229	MI3000000056859	1/2 - 1 Mile West
BK230	MI3000000056858	1/2 - 1 Mile West
231	MI3000000055169	1/2 - 1 Mile South
BL232	MI3000000056360	1/2 - 1 Mile ESE
BM233	MI3000000055602	1/2 - 1 Mile SE
234	MI3000000058459	1/2 - 1 Mile NNW
BN235	MI3000000056007	1/2 - 1 Mile ESE
BO236	MI3000000056545	1/2 - 1 Mile East
BN238	MI3000000055907	1/2 - 1 Mile ESE
BJ239	MI3000000057287	1/2 - 1 Mile WNW
BH240	MI3000000056621	1/2 - 1 Mile East
BL241	MI3000000056455	1/2 - 1 Mile ESE
BH242	MI3000000056737	1/2 - 1 Mile East
BM243	MI3000000055539	1/2 - 1 Mile SE
244	MI3000000055101	1/2 - 1 Mile South
BP245	MI3000000056171	1/2 - 1 Mile ESE
246	MI3000000055767	1/2 - 1 Mile SE
BO247	MI3000000056654	1/2 - 1 Mile East
248	MI3000000056801	1/2 - 1 Mile East
BO249	MI3000000056461	1/2 - 1 Mile ESE
BQ250	MI3000000057313	1/2 - 1 Mile ENE
251	MI3000000057244	1/2 - 1 Mile West
BO252	MI3000000056509	1/2 - 1 Mile ESE
BP253	MI3000000056169	1/2 - 1 Mile ESE
BR254	MI3000000055003	1/2 - 1 Mile South
BO255	MI3000000056567	1/2 - 1 Mile East
BS256	MI3000000058480	1/2 - 1 Mile NNW
257	MI3000000057869	1/2 - 1 Mile WNW
BQ258	MI3000000057254	1/2 - 1 Mile East
BP259	MI3000000056256	1/2 - 1 Mile ESE
260	MI3000000055592	1/2 - 1 Mile SE
BQ261	MI3000000057412	1/2 - 1 Mile ENE
BT262	MI3000000057820	1/2 - 1 Mile ENE
BR263	MI3000000054937	1/2 - 1 Mile South
BU264	MI3000000057528	1/2 - 1 Mile ENE
BS265	MI3000000058561	1/2 - 1 Mile NNW
BP266	MI3000000056166	1/2 - 1 Mile ESE
BS267	MI3000000058547	1/2 - 1 Mile NNW
BT268	MI3000000057898	1/2 - 1 Mile ENE
BQ269	MI3000000057331	1/2 - 1 Mile ENE
BV270	MI3000000056276	1/2 - 1 Mile ESE
BW271	MI3000000056530	1/2 - 1 Mile East
BX272	MI3000000055828	1/2 - 1 Mile WSW
273	MI3000000056084	1/2 - 1 Mile ESE
BV274	MI3000000056357	1/2 - 1 Mile ESE
BW275	MI3000000056482	1/2 - 1 Mile ESE

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
BY276	MI3000000055760	1/2 - 1 Mile ESE
BY277	MI3000000055850	1/2 - 1 Mile ESE
BW278	MI3000000056594	1/2 - 1 Mile East
279	MI3000000054866	1/2 - 1 Mile South
BX280	MI3000000055831	1/2 - 1 Mile WSW
BU281	MI3000000057463	1/2 - 1 Mile ENE
BX282	MI3000000055855	1/2 - 1 Mile WSW
283	MI3000000054832	1/2 - 1 Mile South
284	MI3000000058164	1/2 - 1 Mile NW
BY285	MI3000000055683	1/2 - 1 Mile ESE
286	MI3000000056780	1/2 - 1 Mile East
BV287	MI3000000056230	1/2 - 1 Mile ESE

# PHYSICAL SETTING SOURCE MAP - 3719601.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Brokaw Property  
 ADDRESS: 3013 West Huron River Drive  
 Ann Arbor MI 48103  
 LAT/LONG: 42.3156 / 83.7969

CLIENT: The Mannik & Smith Group  
 CONTACT: Ryan Montri  
 INQUIRY #: 3719601.2s  
 DATE: September 05, 2013 3:20 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**A1**  
**WNW**  
**0 - 1/8 Mile**  
**Lower**

**MI WELLS      MI300000056928**

Wellid:	81000003816	Import id:	81727512051
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	GROTRAIN, HARVEY		
Well addr:	3167 N. WAGNER RD.		
Well depth:	48		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1973-04-06 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	48		
Screen frm:	44		
Screen to:	48		
Swl:	1		
Test depth:	21		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3160893628		
Longitude:	-83.7990440375		
Methd coll:	Interpolation-Map		
Elevation:	820		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	810	Elev dif:	10
Elev miv:	820	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	19		
Pct aq d:	19	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	81
Pct cm d:	81	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	11	A pct aq:	82
A pct maq:	0	A pct pcm:	0
A pct cm:	18	A pct na:	0
A thickns2:	47	A pct aq2:	19
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	81	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Clay
A sc lmod1:	Not Reported	A sc lmaq1:	CM
A sc lpct1:	50	A sc lith2:	Gravel
A sc lmod2:	Not Reported	A sc lmaq2:	AQ
A sc lpct2:	50	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	15	Pct maq 2:	0
Pct cm 2:	85	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	47		
Horiz Conduct:	57.44689		
Vert Conduct:	.00012		
T2:	2700.0038		
D50plek:	209.68981		

**B2**  
**South**  
**0 - 1/8 Mile**  
**Higher**

**MI WELLS      MI300000056631**

Wellid:	81000003898	Import id:	81727513081
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SCHALL, ABEL		
Well addr:	3034 PARK RIDGE DR.		
Well depth:	52		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1976-06-07 00:00:00.000	Case type:	Unknown
Case dia:	6		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	52		
Screen frm:	46		
Screen to:	52		
Swl:	19		
Test depth:	22		
Test hours:	2		
Test rate:	30	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3138614252		
Longitude:	-83.797355938		
Methd coll:	Interpolation-Map		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	4
Elev miv:	840	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	29		
Pct aq d:	29	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	71
Pct cm d:	71	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	33	A pct aq2:	36
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	64	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	15
Pct maq 1:	0	Pct cm 1:	85
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	33		
Horiz Conduct:	36.3637		
Vert Conduct:	.00016		
T2:	1200.0021		
D50plek:	68.23648		

3

**NNE**  
**1/8 - 1/4 Mile**  
**Lower**

**MI WELLS MI300000057127**

Wellid:	81000006163	Import id:	81737511401
County:	Washtenaw	Township:	Lodi
Town range:	03S 05E	Section:	11
Owner name:	VFW POST 423		
Well addr:	3230 S WAGNER ROAD		
Well depth:	136		
Well type:	Type II public		
Wssn:	2040781		
Well num:	001	Driller id:	1290
Const date:	1994-04-22 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	128		
Screen frm:	128		
Screen to:	136		
Swl:	100		
Test depth:	101		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	20
Latitude:	42.31739293		
Longitude:	-83.7959764		
Methd coll:	Address Matching-House Number		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	800	Elev dif:	50
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	54		
Pct aq d:	54	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	46

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	46	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	36	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	36	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	15
Pct maq 1:	0	Pct cm 1:	85
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	75	Pct maq 4:	0
Pct cm 4:	25	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	100	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**A4**  
**West**  
**1/8 - 1/4 Mile**  
**Lower**

**MI WELLS      MI3000000056841**

Wellid:	81000012515	Import id:	Not Reported
County:	Washtenaw	Township:	Lodi
Town range:	03S 05E	Section:	2
Owner name:	LODI FARMS		
Well addr:	2900 WAGNER		
Well depth:	146		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2002-08-07 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	116		
Screen frm:	116		
Screen to:	126		
Swl:	85		
Test depth:	88		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.31562231		
Longitude:	-83.79967772		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	823	Elev dif:	823
Elev miv:	823	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	66		
Pct aq d:	66	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	21
Pct cm d:	21	Pct cm r:	0
Pct pcm:	14	Pct pcm d:	14
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	41	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	41	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	100	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**B5**  
**South**  
**1/8 - 1/4 Mile**  
**Higher**

**MI WELLS MI300000056577**

Wellid:	81000003899	Import id:	81727513082
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	VAIL, CURTIS		
Well addr:	3075 PARK RIDGE DR.		
Well depth:	80		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1975-01-08 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	80		
Screen frm:	76		
Screen to:	80		
Swl:	35		
Test depth:	50		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3134881502		
Longitude:	-83.7964690614		
Methd coll:	Interpolation-Map		
Elevation:	845		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	2
Elev miv:	845	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	40		
Pct aq d:	40	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	59
Pct cm d:	59	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	45	A pct aq2:	11
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	89	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	95
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	5
Pct aq 2:	40	Pct maq 2:	0
Pct cm 2:	60	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	25	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	45		
Horiz Conduct:	11.1112		
Vert Conduct:	.00011		
T2:	500.004		
D50plek:	40.64971		

**C6  
SE  
1/8 - 1/4 Mile  
Higher**

**MI WELLS      MI300000056660**

Wellid:	81000003901	Import id:	81727513084
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	EISNER, BRIAN		
Well addr:	3000 PARK RIDGE DR.		
Well depth:	88		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	Not Reported	Case type:	Unknown
Case dia:	4		
Case depth:	88		
Screen frm:	84		
Screen to:	88		
Swl:	35		
Test depth:	35		
Test hours:	2		
Test rate:	60	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3140158312		
Longitude:	-83.7949560958		
Methd coll:	Interpolation-Map		
Elevation:	843		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	833	Elev dif:	10
Elev miv:	843	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	43		
Pct aq d:	43	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	57

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	57	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	53	A pct aq2:	30
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	70	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	15
Pct maq 3:	0	Pct cm 3:	85
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	53		
Horiz Conduct:	30.18875		
Vert Conduct:	.00014		
T2:	1600.0037		
D50plek:	143.93662		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**C7**  
**SSE**  
**1/8 - 1/4 Mile**  
**Higher**

**MI WELLS      MI3000000056584**

Wellid:	81000003900	Import id:	81727513083
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	MC CANN, BRUCE		
Well addr:	2969 PARK RIDGE DR.		
Well depth:	75		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1968-06-29 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	75		
Screen frm:	71		
Screen to:	75		
Swl:	43		
Test depth:	42		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3135219206		
Longitude:	-83.7957080912		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	4
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	17		
Pct aq d:	17	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	83	Pct pcm d:	83
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	32	A pct aq2:	22
A pct maq2:	0	A pct pcm2:	78
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	30
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	70	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	32		
Horiz Conduct:	65.62578		
Vert Conduct:	.00128		
T2:	2100.025		
D50plek:	112.4735		

**D8  
South  
1/8 - 1/4 Mile  
Higher**

**MI WELLS      MI300000056496**

Wellid:	81000003897	Import id:	81727513080
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SUIDERER, MANFRED		
Well addr:	3153 PARK RIDGE DR.		
Well depth:	72		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1975-04-08 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	72		
Screen frm:	68		
Screen to:	72		
Swl:	22		
Test depth:	36		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3129760884		
Longitude:	-83.7964836275		
Methd coll:	Interpolation-Map		
Elevation:	845		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	1
Elev miv:	845	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	31		
Pct aq d:	31	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	69
Pct cm d:	69	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	50	A pct aq2:	12
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	88	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	80
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	50		
Horiz Conduct:	12.00009		
Vert Conduct:	.00011		
T2:	600.0044		
D50plek:	53.65809		

9

**WSW**  
**1/8 - 1/4 Mile**  
**Lower**

**MI WELLS MI300000056755**

Wellid:	81000003765	Import id:	81727511025
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	POLITIS, DEMETRI		
Well addr:	3133 N. WAGNER RD.		
Well depth:	67		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1982-12-01 00:00:00.000	Case type:	Steel-black
Case dia:	4		
Case depth:	67		
Screen frm:	63		
Screen to:	67		
Swl:	18		
Test depth:	27		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3148166445		
Longitude:	-83.8006530272		
Methd coll:	Interpolation-Map		
Elevation:	825		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	820	Elev dif:	5
Elev miv:	825	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	19

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	19	Pct cm r:	0
Pct pcm:	52	Pct pcm d:	52
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	49	A pct aq2:	8
A pct maq2:	0	A pct pcm2:	65
A pct cm2:	27	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	75
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	25	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	50	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	49		
Horiz Conduct:	8.16394		
Vert Conduct:	.0003		
T2:	400.0333		
D50plek:	35.85579		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**E10**  
**SSW**  
**1/8 - 1/4 Mile**  
**Higher**

**MI WELLS      MI3000000056472**

Wellid:	81000003896	Import id:	81727513079
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	CORNISH, DAVE		
Well addr:	3222 PARK RIDGE DR.		
Well depth:	58		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1975-05-28 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	58		
Screen frm:	54		
Screen to:	58		
Swl:	24		
Test depth:	24		
Test hours:	2		
Test rate:	18	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3127900734		
Longitude:	-83.7978901101		
Methd coll:	Interpolation-Map		
Elevation:	848		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	2
Elev miv:	848	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	67		
Pct aq d:	67	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	33
Pct cm d:	33	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	34	A pct aq2:	44
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	56	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	34		
Horiz Conduct:	44.1177		
Vert Conduct:	.00018		
T2:	1500.0019		
D50plek:	86.85708		

**11  
SW  
1/8 - 1/4 Mile  
Higher**

**MI WELLS      MI300000056552**

Wellid:	81000003893	Import id:	81727513076
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HILDEBRANDT, DON		
Well addr:	2776 WAGNER CT.		
Well depth:	102		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1983-04-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	102		
Screen frm:	98		
Screen to:	102		
Swl:	24		
Test depth:	26		
Test hours:	2		
Test rate:	18	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3133446091		
Longitude:	-83.7995804774		
Methd coll:	Interpolation-Map		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	3
Elev miv:	840	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	16		
Pct aq d:	16	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	43
Pct cm d:	43	Pct cm r:	0
Pct pcm:	41	Pct pcm d:	41
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	50
A pct maq:	0	A pct pcm:	35
A pct cm:	15	A pct na:	0
A thickns2:	78	A pct aq2:	21
A pct maq2:	0	A pct pcm2:	37
A pct cm2:	42	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	40
Pct pcm 1:	60	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	15	Pct pcm 2:	85
Pct na 2:	0	Pct aq 3:	30
Pct maq 3:	0	Pct cm 3:	40
Pct pcm 3:	30	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	40
Pct maq 5:	0	Pct cm 5:	25
Pct pcm 5:	35	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	78		
Horiz Conduct:	61.53968		
Vert Conduct:	.00022		
T2:	4800.0953		
D50plek:	601.15963		

**E12  
SSW  
1/8 - 1/4 Mile  
Higher**

**MI WELLS      MI300000056459**

Wellid:	8100003895	Import id:	81727513078
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	ABERSINGER, ED		
Well addr:	3300 PARK RIDGE DR.		
Well depth:	78		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1972-06-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	78		
Screen frm:	74		
Screen to:	78		
Swl:	28		
Test depth:	44		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3127209279		
Longitude:	-83.7984147608		
Methd coll:	Interpolation-Map		
Elevation:	852		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	2
Elev miv:	852	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	46		
Pct aq d:	46	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	54	Pct pcm d:	54
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	50	A pct aq2:	16
A pct maq2:	0	A pct pcm2:	84
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	50		
Horiz Conduct:	16.00084		
Vert Conduct:	.00119		
T2:	800.042		
D50plek:	70.43679		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**E13**  
**SSW**  
**1/8 - 1/4 Mile**  
**Higher**

**MI WELLS      MI3000000056450**

Wellid:	81000003894	Import id:	81727513077
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SIMON, GERALD		
Well addr:	3360 PARK RIDGE DR.		
Well depth:	58		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1969-11-06 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	54		
Screen frm:	54		
Screen to:	58		
Swl:	24		
Test depth:	28		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3126940018		
Longitude:	-83.7990305515		
Methd coll:	Interpolation-Map		
Elevation:	852		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	2
Elev miv:	852	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	72
Pct cm d:	72	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	34	A pct aq2:	15
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	85	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	55
Pct maq 1:	0	Pct cm 1:	45
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	34		
Horiz Conduct:	14.70597		
Vert Conduct:	.00012		
T2:	500.0029		
D50plek:	30.71305		

**F14  
SSE  
1/8 - 1/4 Mile  
Higher**

**MI WELLS      MI300000056438**

Wellid:	81000010771	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HARVEY AMOE		
Well addr:	3311 WOODLEA		
Well depth:	108		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-08-16 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	100		
Screen frm:	100		
Screen to:	108		
Swl:	56		
Test depth:	56		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	18
Latitude:	42.31259397		
Longitude:	-83.79475817		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	850
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	19		
Pct aq d:	19	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	81
Pct cm d:	81	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	18	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	52	A pct aq2:	35
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	65	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	10
Pct maq 1:	0	Pct cm 1:	90
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	50
Pct maq 5:	0	Pct cm 5:	50
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	52		
Horiz Conduct:	103.84622		
Vert Conduct:	.00015		
T2:	5400.0034		
D50plek:	448.26423		

**D15  
South  
1/8 - 1/4 Mile  
Higher**

**MI WELLS      MI300000056376**

Wellid:	81000003887	Import id:	81727513070
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	MICHAEL, KENNY		
Well addr:	3245 PARK RIDGE DR.		
Well depth:	169		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	Not Reported	Case type:	Unknown
Case dia:	0		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3121578158		
Longitude:	-83.7971311671		
Methd coll:	Interpolation-Map		
Elevation:	855		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	853	Elev dif:	2
Elev miv:	855	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq:	5		
Pct aq d:	5	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	95

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	95	Pct cm r:	100
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	150
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	75
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	15	Pct maq 4:	0
Pct cm 4:	85	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	6.92317		
Vert Conduct:	.0001		
T2:	900.0127		
D50plek:	204.71932		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**E16**  
**SSW**  
**1/8 - 1/4 Mile**  
**Higher**

**MI WELLS      MI3000000056377**

Wellid:	81000003889	Import id:	81727513072
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BARNES, THEODORE		
Well addr:	3293 PARK RIDGE DR.		
Well depth:	117		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1988-07-14 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	113		
Screen frm:	106		
Screen to:	110		
Swl:	53		
Test depth:	58		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3121610239		
Longitude:	-83.7979555767		
Methd coll:	Interpolation-Map		
Elevation:	858		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	2
Elev miv:	858	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	27		
Pct aq d:	27	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	73
Pct cm d:	73	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	57	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	100	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Clay
A sc lmod1:	Not Reported	A sc lmaq1:	CM
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	80
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	90
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**D17  
SSE  
1/8 - 1/4 Mile  
Higher**

**MI WELLS      MI300000056370**

Wellid:	81000003885	Import id:	81727513068
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	KUMRA, MOLINDER		
Well addr:	3300 WOODLEA DR.		
Well depth:	80		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1974-11-18 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	80		
Screen frm:	76		
Screen to:	80		
Swl:	20		
Test depth:	26		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3121236327		
Longitude:	-83.7957589398		
Methd coll:	Interpolation-Map		
Elevation:	855		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	5
Elev miv:	855	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	4		
Pct aq d:	4	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	91
Pct cm d:	91	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	5
Pct na d:	5	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	3	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	60	A pct aq2:	5
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	95	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	75	A sc lith2:	Clay
A sc lmod2:	Not Reported	A sc lmaq2:	CM
A sc lpct2:	25	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	80
Pct pcm 1:	0	Pct na 1:	20
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	15	Pct maq 4:	0
Pct cm 4:	85	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	60		
Horiz Conduct:	5.0001		
Vert Conduct:	.00011		
T2:	300.0057		
D50plek:	33.46635		

**E18  
SSW  
1/8 - 1/4 Mile  
Higher**

**MI WELLS      MI300000056362**

Wellid:	81000003888	Import id:	81727513071
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BARNES, TED		
Well addr:	3293 PARK RIDGE DR.		
Well depth:	44		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1980-11-12 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	44		
Screen frm:	37		
Screen to:	44		
Swl:	25		
Test depth:	26		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3120756114		
Longitude:	-83.797882368		
Methd coll:	Interpolation-Map		
Elevation:	858		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	1
Elev miv:	858	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	70		
Pct aq d:	70	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	30

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	30	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	19	A pct aq:	84
A pct maq:	0	A pct pcm:	0
A pct cm:	16	A pct na:	0
A thickns2:	19	A pct aq2:	84
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	16	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	75
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	19		
Horiz Conduct:	84.21054		
Vert Conduct:	.00063		
T2:	1600.0003		
D50plek:	51.59982		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**E19**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000056361**

Wellid:	81000003890	Import id:	81727513073
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BARNES, TED		
Well addr:	3293 PARK RIDGE DR.		
Well depth:	82		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1972-10-28 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	82		
Screen frm:	78		
Screen to:	82		
Swl:	20		
Test depth:	20		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3120667005		
Longitude:	-83.7980118401		
Methd coll:	Interpolation-Map		
Elevation:	858		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	1
Elev miv:	858	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	21		
Pct aq d:	21	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	46
Pct cm d:	46	Pct cm r:	0
Pct pcm:	32	Pct pcm d:	32
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	9	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	62	A pct aq2:	27
A pct maq2:	0	A pct pcm2:	24
A pct cm2:	48	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	40
Pct pcm 1:	55	Pct na 1:	5

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	40
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	10	Pct na 3:	0
Pct aq 4:	35	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	65
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	62		
Horiz Conduct:	82.25835		
Vert Conduct:	.0002		
T2:	5100.018		
D50plek:	506.19266		

**20  
WNW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000057120**

Wellid:	81000003755	Import id:	81727511015
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	HADDOCK, FRED		
Well addr:	3935 HOLDEN RD.		
Well depth:	109		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1979-04-20 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	105		
Screen frm:	105		
Screen to:	109		
Swl:	83		
Test depth:	90		
Test hours:	2		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3173622525		
Longitude:	-83.8012829814		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	869	Elev dif:	1
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	43
Pct cm d:	43	Pct cm r:	0
Pct pcm:	35	Pct pcm d:	35
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	26	A pct aq:	92
A pct maq:	0	A pct pcm:	0
A pct cm:	8	A pct na:	0
A thickns2:	26	A pct aq2:	92
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	8	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	10	Pct pcm 4:	90
Pct na 4:	0	Pct aq 5:	75
Pct maq 5:	0	Pct cm 5:	25
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	26		
Horiz Conduct:	276.92308		
Vert Conduct:	.0013		
T2:	7200.0002		
D50plek:	294.69621		

**21  
South  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056312**

Wellid:	81000003886	Import id:	81727513069
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	TURKE, LARRY		
Well addr:	3330 WOODLEA DR.		
Well depth:	59		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1968-07-29 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	59		
Screen frm:	55		
Screen to:	59		
Swl:	16		
Test depth:	17		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3117826737		
Longitude:	-83.7964125458		
Methd coll:	Interpolation-Map		
Elevation:	862		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	9
Elev miv:	862	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	10		
Pct aq d:	10	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	90	Pct pcm d:	90
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	43	A pct aq2:	14
A pct maq2:	0	A pct pcm2:	86
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	43		
Horiz Conduct:	18.60551		
Vert Conduct:	.00116		
T2:	800.037		
D50plek:	60.57528		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**E22**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI3000000056319**

Wellid:	81000003891	Import id:	81727513074
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	KNOWLES, MURRAY		
Well addr:	3420 WOODLEA DR.		
Well depth:	128		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-01-06 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	124		
Screen frm:	124		
Screen to:	128		
Swl:	39		
Test depth:	44		
Test hours:	7		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3118388836		
Longitude:	-83.7983603861		
Methd coll:	Interpolation-Map		
Elevation:	860		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	4
Elev miv:	860	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	23		
Pct aq d:	23	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	77
Pct cm d:	77	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	89	A pct aq2:	6
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	94	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	25	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	8	Pct maq 6:	0
Pct cm 6:	92	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	89		
Horiz Conduct:	16.85403		
Vert Conduct:	.00011		
T2:	1500.0084		
D50plek:	227.36211		

**23  
SW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI3000000056516**

Wellid:	81000003938	Import id:	81727514037
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	LAPIDES, DR. JACK		
Well addr:	2805 N. WAGNER RD.		
Well depth:	79		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-11-06 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	75		
Screen frm:	75		
Screen to:	79		
Swl:	20		
Test depth:	34		
Test hours:	2		
Test rate:	18	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3130931294		
Longitude:	-83.8010614581		
Methd coll:	Interpolation-Map		
Elevation:	836		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	0
Elev miv:	836	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	44		
Pct aq d:	44	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	35
Pct cm d:	35	Pct cm r:	0
Pct pcm:	20	Pct pcm d:	20
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	75
A pct maq:	0	A pct pcm:	0
A pct cm:	25	A pct na:	0
A thickns2:	59	A pct aq2:	59
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	41	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	80	Pct na 1:	0
Pct aq 2:	85	Pct maq 2:	0
Pct cm 2:	15	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	45
Pct maq 3:	0	Pct cm 3:	55
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	59		
Horiz Conduct:	167.79665		
Vert Conduct:	.00025		
T2:	9900.0024		
D50plek:	905.59982		

**G24  
SSW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056329**

Wellid:	81000003892	Import id:	81727513075
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	STARNAL, ERIC		
Well addr:	2720 N. WAGNER RD.		
Well depth:	159		
Well type:	Irrigation		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-05-28 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3118757039		
Longitude:	-83.7994774922		
Methd coll:	Interpolation-Map		
Elevation:	852		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	853	Elev dif:	1
Elev miv:	852	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq:	12		
Pct aq d:	16	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	88

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	84	Pct cm r:	100
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	122
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	70
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	4.90206		
Vert Conduct:	.00011		
T2:	500.0097		
D50plek:	92.14034		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**25**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000057336**

Wellid:	81000003756	Import id:	81727511016
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	BAINES, THOMAS		
Well addr:	3940 HOLDEN RD.		
Well depth:	115		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1981-01-08 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	109		
Screen frm:	109		
Screen to:	113		
Swl:	86		
Test depth:	86		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3187445899		
Longitude:	-83.8006805487		
Methd coll:	Interpolation-Map		
Elevation:	902		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	895	Elev dif:	7
Elev miv:	902	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	17		
Pct aq d:	17	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	25
Pct cm d:	25	Pct cm r:	0
Pct pcm:	58	Pct pcm d:	58
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	27	A pct aq2:	56
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	44	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	85
Pct pcm 1:	15	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	60
Pct maq 5:	0	Pct cm 5:	20
Pct pcm 5:	20	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	27		
Horiz Conduct:	166.66671		
Vert Conduct:	.00022		
T2:	4500.0012		
D50plek:	195.70555		

**F26  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056311**

Wellid:	81000003883	Import id:	81727513066
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BOYD, ALAN		
Well addr:	2935 PARK RIDGE DR.		
Well depth:	119		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-04-01 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	115		
Screen frm:	115		
Screen to:	119		
Swl:	55		
Test depth:	65		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3117826612		
Longitude:	-83.7944540573		
Methd coll:	Interpolation-Map		
Elevation:	858		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	1
Elev miv:	858	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	8		
Pct aq d:	8	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	92
Pct cm d:	92	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	64	A pct aq2:	9
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	91	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	20
Pct maq 1:	0	Pct cm 1:	80
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	64		
Horiz Conduct:	9.37509		
Vert Conduct:	.00011		
T2:	600.0058		
D50plek:	68.6825		

**H27  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056246**

Wellid:	81000003884	Import id:	81727513067
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	AMOE, HARVEY		
Well addr:	3311 WOODLEA DR.		
Well depth:	62		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1968-11-18 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	62		
Screen frm:	58		
Screen to:	62		
Swl:	20		
Test depth:	45		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3113511065		
Longitude:	-83.7951149169		
Methd coll:	Interpolation-Map		
Elevation:	858		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	2
Elev miv:	858	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	27		
Pct aq d:	27	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	69	Pct pcm d:	69
Pct pcm r:	0	Pct na:	3
Pct na d:	3	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	42	A pct aq2:	17
A pct maq2:	0	A pct pcm2:	83
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	50
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	40	Pct na 1:	10
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	75	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	42		
Horiz Conduct:	16.6675		
Vert Conduct:	.0012		
T2:	700.035		
D50plek:	52.14656		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**H28**  
**SSE**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI3000000056254**

Wellid:	81000003882	Import id:	81727513065
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BARNES, SAM		
Well addr:	2929 PARK RIDGE DR.		
Well depth:	82		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1969-07-15 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	82		
Screen frm:	0		
Screen to:	0		
Swl:	38		
Test depth:	45		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3113877259		
Longitude:	-83.793979628		
Methd coll:	Interpolation-Map		
Elevation:	862		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	4
Elev miv:	862	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	65
Pct cm d:	65	Pct cm r:	0
Pct pcm:	4	Pct pcm d:	4
Pct pcm r:	0	Pct na:	4
Pct na d:	4	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	45
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	15	Pct na 1:	15

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	60	Pct maq 4:	0
Pct cm 4:	40	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**H29**  
**SSE**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS MI300000056240**

Wellid:	81000003881	Import id:	81727513064
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BARNES, SAM		
Well addr:	2929 PARKRIDGE DR.		
Well depth:	147		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-12-29 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	143		
Screen frm:	143		
Screen to:	147		
Swl:	69		
Test depth:	116		
Test hours:	5		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3113359573		
Longitude:	-83.7940919084		
Methd coll:	Interpolation-Map		
Elevation:	862		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	4
Elev miv:	862	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	17		
Pct aq d:	17	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	83
Pct cm d:	83	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	78	A pct aq2:	6
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	94	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	78		
Horiz Conduct:	6.41035		
Vert Conduct:	.00011		
T2:	500.0073		
D50plek:	70.45994		

**I30  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056271**

Wellid:	81000010577	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	CHARLES GARVIN		
Well addr:	2925 PARKRIDGE		
Well depth:	128		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-06-23 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	118		
Screen frm:	118		
Screen to:	123		
Swl:	75		
Test depth:	83		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.31150217		
Longitude:	-83.79345053		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	866
Elev miv:	866	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	87

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	87	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	48	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	88	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	55
Pct maq 1:	0	Pct cm 1:	45
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	24	Pct maq 6:	0
Pct cm 6:	76	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	48		
Horiz Conduct:	12.50009		
Vert Conduct:	.00011		
T2:	600.0042		
D50plek:	51.51175		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**J31**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI3000000056164**

Wellid:	81000003878	Import id:	81727513061
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	MCTAGUE, JOHN		
Well addr:	3337 WOODLEA DR.		
Well depth:	80		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-10-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	76		
Screen frm:	76		
Screen to:	80		
Swl:	28		
Test depth:	30		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3107315531		
Longitude:	-83.7966572569		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	2
Elev miv:	865	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	50		
Pct aq d:	50	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	50
Pct cm d:	50	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	52	A pct aq2:	23
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	77	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	40	Pct maq 4:	0
Pct cm 4:	60	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	52		
Horiz Conduct:	23.077		
Vert Conduct:	.00013		
T2:	1200.004		
D50plek:	107.52432		

**G32**  
**SW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000056294**

Wellid:	81000003939	Import id:	81727514038
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	GILTROW, D.L.		
Well addr:	2755 N. WAGNER RD.		
Well depth:	85		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1075
Const date:	1982-08-02 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	85		
Screen frm:	81		
Screen to:	85		
Swl:	30		
Test depth:	34		
Test hours:	2		
Test rate:	30	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3116688403		
Longitude:	-83.8008055572		
Methd coll:	Interpolation-Map		
Elevation:	842		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	8
Elev miv:	842	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	21		
Pct aq d:	21	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	74
Pct cm d:	74	Pct cm r:	0
Pct pcm:	5	Pct pcm d:	5
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	55	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	87	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	55
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	20	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	10	Pct maq 4:	0
Pct cm 4:	90	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	55		
Horiz Conduct:	12.72736		
Vert Conduct:	.00011		
T2:	700.0048		
D50plek:	68.28438		

**J33  
South  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056153**

Wellid:	81000003877	Import id:	81727513060
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	TING, LOI		
Well addr:	3407 WOODLEA DR.		
Well depth:	144		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1979-07-10 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	136		
Screen frm:	136		
Screen to:	144		
Swl:	28		
Test depth:	29		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.310657492		
Longitude:	-83.7973482962		
Methd coll:	Interpolation-Map		
Elevation:	862		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	1
Elev miv:	862	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	10		
Pct aq d:	10	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	90

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	90	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	116	A pct aq2:	6
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	94	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	88	A sc lith2:	Clay
A sc lmod2:	Not Reported	A sc lmaq2:	CM
A sc lpct2:	12	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	60
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	116		
Horiz Conduct:	6.03458		
Vert Conduct:	.00011		
T2:	700.0109		
D50plek:	144.01914		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**K34**  
**ENE**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI300000057006**

Wellid:	81000003778	Import id:	81727512013
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	CAREY, CHARLES		
Well addr:	3131 DALEVIEW DR.		
Well depth:	52		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-11-10 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	48		
Screen frm:	48		
Screen to:	52		
Swl:	24		
Test depth:	24		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3166781605		
Longitude:	-83.7902542295		
Methd coll:	Interpolation-Map		
Elevation:	820		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	817	Elev dif:	3
Elev miv:	820	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	56		
Pct aq d:	56	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	44	Pct pcm d:	44
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	28	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	28	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	85	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	15
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	28		
Horiz Conduct:	300		
Vert Conduct:	300		
T2:	8400		
D50plek:	367.52687		

**G35  
SSW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056216**

Wellid:	81000010866	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	BOB BRIMACOMBE		
Well addr:	2693 WAGNER		
Well depth:	68		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-09-18 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	58		
Screen frm:	58		
Screen to:	68		
Swl:	18		
Test depth:	21		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.3111717		
Longitude:	-83.80037477		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	853
Elev miv:	853	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	59		
Pct aq d:	59	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	41
Pct cm d:	41	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	21	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	50	A pct aq2:	44
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	56	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	95
Pct maq 1:	0	Pct cm 1:	5
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	65
Pct maq 3:	0	Pct cm 3:	35
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	50		
Horiz Conduct:	48.00006		
Vert Conduct:	.00018		
T2:	2400.0028		
D50plek:	199.47763		

**L36  
NNW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000057566**

Wellid:	81000003815	Import id:	81727512050
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	BUSCH, JOHN J.		
Well addr:	3639 RIVER PINES DR.		
Well depth:	112		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1983-05-09 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	112		
Screen frm:	108		
Screen to:	112		
Swl:	51		
Test depth:	54		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3202330013		
Longitude:	-83.8000060071		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	869	Elev dif:	1
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	17		
Pct aq d:	17	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	13

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	13	Pct cm r:	0
Pct pcm:	71	Pct pcm d:	71
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	61	A pct aq2:	31
A pct maq2:	0	A pct pcm2:	52
A pct cm2:	16	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	65
Pct pcm 3:	35	Pct na 3:	0
Pct aq 4:	25	Pct maq 4:	0
Pct cm 4:	5	Pct pcm 4:	70
Pct na 4:	0	Pct aq 5:	30
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	70	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	61		
Horiz Conduct:	80.33313		
Vert Conduct:	.00059		
T2:	4900.321		
D50plek:	479.4667		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**L37**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000057499**

Wellid:	8100003757	Import id:	81727511017
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	BURBA, BRUCE		
Well addr:	3683 RIVER PINE DR.		
Well depth:	140		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1985-07-01 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	140		
Screen frm:	132		
Screen to:	140		
Swl:	98		
Test depth:	102		
Test hours:	2		
Test rate:	18	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.319883452		
Longitude:	-83.800822437		
Methd coll:	Interpolation-Map		
Elevation:	895		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	889	Elev dif:	6
Elev miv:	895	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	42		
Pct aq d:	42	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	17
Pct cm d:	17	Pct cm r:	0
Pct pcm:	41	Pct pcm d:	41
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	15	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	42	A pct aq2:	36
A pct maq2:	0	A pct pcm2:	64
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel & Cobbles
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	75	A sc lith2:	Gravel
A sc lmod2:	Not Reported	A sc lmaq2:	AQ
A sc lpct2:	25	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	40
Pct pcm 1:	60	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	75	Pct maq 2:	0
Pct cm 2:	25	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	45	Pct maq 4:	0
Pct cm 4:	55	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	100
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	42		
Horiz Conduct:	83.33976		
Vert Conduct:	.01556		
T2:	3500.27		
D50plek:	239.77051		

**K38**  
**ENE**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000057155**

Wellid:	81000003780	Import id:	81727512015
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	BIENIEK, CHRIS		
Well addr:	3175 DALEVIEW DR.		
Well depth:	74		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1979-12-04 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	74		
Screen frm:	70		
Screen to:	74		
Swl:	50		
Test depth:	60		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3175189215		
Longitude:	-83.7901905377		
Methd coll:	Interpolation-Map		
Elevation:	830		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	823	Elev dif:	7
Elev miv:	830	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	88		
Pct aq d:	88	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	12
Pct cm d:	12	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	24	A pct aq2:	63
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	38	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	75
Pct maq 3:	0	Pct cm 3:	25
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	24		
Horiz Conduct:	104.1667		
Vert Conduct:	.00027		
T2:	2500.0009		
D50plek:	99.53181		

**H39  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056132**

Wellid:	81000003880	Import id:	81727513063
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	MELVIN, ARTHUR		
Well addr:	3350 ROBINWOOD DR.		
Well depth:	166		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1968-10-30 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	166		
Screen frm:	162		
Screen to:	166		
Swl:	83		
Test depth:	92		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3105170696		
Longitude:	-83.794589742		
Methd coll:	Interpolation-Map		
Elevation:	869		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	6
Elev miv:	869	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	2	Pct maq d:	2
Pct maq r:	0	Pct cm:	77

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	77	Pct cm r:	0
Pct pcm:	7	Pct pcm d:	7
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	22	A pct aq:	86
A pct maq:	14	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	83	A pct aq2:	23
A pct maq2:	4	A pct pcm2:	11
A pct cm2:	63	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	15
Pct maq 1:	0	Pct cm 1:	60
Pct pcm 1:	15	Pct na 1:	10
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	55
Pct pcm 5:	45	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	24
Pct maq 7:	0	Pct cm 7:	76
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	83		
Horiz Conduct:	23.97607		
Vert Conduct:	.00016		
T2:	1990.0142		
D50plek:	277.21068		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**J40**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI3000000056085**

Wellid:	81000003879	Import id:	81727513062
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BONISTEEL, ROSCOE		
Well addr:	3374 ROBINWOOD DR.		
Well depth:	123		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1969-12-30 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	119		
Screen frm:	119		
Screen to:	123		
Swl:	72		
Test depth:	75		
Test hours:	1		
Test rate:	15	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3102673102		
Longitude:	-83.7957018942		
Methd coll:	Interpolation-Map		
Elevation:	872		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	6
Elev miv:	872	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	11		
Pct aq d:	11	Pct aq r:	0
Pct maq:	24	Pct maq d:	24
Pct maq r:	0	Pct cm:	62
Pct cm d:	62	Pct cm r:	0
Pct pcm:	3	Pct pcm d:	3
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	51	A pct aq2:	14
A pct maq2:	43	A pct pcm2:	0
A pct cm2:	43	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	55
Pct pcm 1:	20	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	80
Pct cm 4:	20	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	70	Pct cm 5:	30
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	51		
Horiz Conduct:	18.03926		
Vert Conduct:	.00023		
T2:	920.0022		
D50plek:	82.00017		

**41**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS MI300000056105**

Wellid:	81000010162	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BILL BARSAN		
Well addr:	3435 COTTONTAIL LANE		
Well depth:	85		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	2000-02-24 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	70		
Screen frm:	70		
Screen to:	76		
Swl:	25		
Test depth:	25		
Test hours:	2		
Test rate:	25	Test methd:	Air
Grouted:	1	Pmp cpcity:	12
Latitude:	42.31038715		
Longitude:	-83.79902279		
Methd coll:	Address Matching-Nearest Intersection		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	859
Elev miv:	859	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	40		
Pct aq d:	40	Pct aq r:	0
Pct maq:	6	Pct maq d:	6
Pct maq r:	0	Pct cm:	54
Pct cm d:	54	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	51	A pct aq2:	43
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	57	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	60
Pct maq 1:	25	Pct cm 1:	15
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	20	Pct maq 2:	0
Pct cm 2:	80	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	35
Pct maq 3:	0	Pct cm 3:	65
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	55	Pct maq 4:	0
Pct cm 4:	45	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	51		
Horiz Conduct:	58.82359		
Vert Conduct:	.00018		
T2:	3000.0029		
D50plek:	251.47605		

**I42  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056127**

Wellid:	81000003866	Import id:	81727513049
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	DABICH, LYUBICA		
Well addr:	2919 PARKRIDGE DR.		
Well depth:	131		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-09-07 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	127		
Screen frm:	127		
Screen to:	131		
Swl:	77		
Test depth:	79		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3104969784		
Longitude:	-83.7934115189		
Methd coll:	Interpolation-Map		
Elevation:	875		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	1
Elev miv:	875	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	21		
Pct aq d:	21	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	79

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	79	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	54	A pct aq2:	11
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	89	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	54		
Horiz Conduct:	11.1112		
Vert Conduct:	.00011		
T2:	600.0048		
D50plek:	57.95077		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**43**  
**North**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI300000057724**

Wellid:	81000003813	Import id:	81727512048
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	DE MARIA, JASPER		
Well addr:	3252 HURON RIVER DR.		
Well depth:	71		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1977-06-16 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	67		
Screen frm:	67		
Screen to:	71		
Swl:	14		
Test depth:	22		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3213819548		
Longitude:	-83.7961211439		
Methd coll:	Interpolation-Map		
Elevation:	815		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	817	Elev dif:	2
Elev miv:	815	Aq code:	Not Reported
Aq flag:	Lithology Problem (Drift under Rock)		
Pct aq:	0		
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-9
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	57	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	57	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	57		
Horiz Conduct:	219.29825		
Vert Conduct:	166.01942		
T2:	12500		
D50plek:	1092.5711		

**M44  
NW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000057494**

Wellid:	81000003758	Import id:	81727511018
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	KERR, ROBERT		
Well addr:	3715 RIVER PINES DR.		
Well depth:	162		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1760
Const date:	Not Reported	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	154		
Screen frm:	154		
Screen to:	162		
Swl:	100		
Test depth:	100		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3198062097		
Longitude:	-83.8024333472		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	902	Elev dif:	2
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	16		
Pct aq d:	16	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	35
Pct cm d:	35	Pct cm r:	0
Pct pcm:	49	Pct pcm d:	49
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	11	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	62	A pct aq2:	18
A pct maq2:	0	A pct pcm2:	16
A pct cm2:	66	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	75
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	60	Pct pcm 6:	40
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	62		
Horiz Conduct:	35.48555		
Vert Conduct:	.00015		
T2:	2200.1041		
D50plek:	227.75879		

**N45  
SSW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056120**

Wellid:	81000003940	Import id:	81727514039
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	PHIBBS, CHARLES		
Well addr:	2677 N. WAGNER RD.		
Well depth:	45		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-12-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	41		
Screen frm:	41		
Screen to:	45		
Swl:	11		
Test depth:	22		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.310453989		
Longitude:	-83.8007327287		
Methd coll:	Interpolation-Map		
Elevation:	846		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	0
Elev miv:	846	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	76		
Pct aq d:	76	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	24

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	24	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	34	A pct aq:	94
A pct maq:	0	A pct pcm:	0
A pct cm:	6	A pct na:	0
A thickns2:	34	A pct aq2:	94
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	6	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	45
Pct maq 1:	0	Pct cm 1:	55
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	34		
Horiz Conduct:	94.11765		
Vert Conduct:	.0017		
T2:	3200.0002		
D50plek:	178.24797		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**O46**  
**East**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI3000000056948**

Wellid:	81000003777	Import id:	81727512012
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	AUUSKIEWICZ, MIKE		
Well addr:	2971 DALEVIEW DR.		
Well depth:	42		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	658
Const date:	1968-06-24 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	42		
Screen frm:	39		
Screen to:	42		
Swl:	15		
Test depth:	0		
Test hours:	3		
Test rate:	60	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.316229893		
Longitude:	-83.788996432		
Methd coll:	Interpolation-Map		
Elevation:	813		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	813	Elev dif:	0
Elev miv:	813	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	10		
Pct aq d:	10	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	48
Pct cm d:	48	Pct cm r:	0
Pct pcm:	43	Pct pcm d:	43
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	27	A pct aq2:	15
A pct maq2:	0	A pct pcm2:	67
A pct cm2:	19	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	90
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	27		
Horiz Conduct:	44.45113		
Vert Conduct:	.00052		
T2:	1200.1805		
D50plek:	55.83771		

**47**  
**NNE**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS MI300000057716**

Wellid:	81000003812	Import id:	81727512047
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	BONVALLET, ANN		
Well addr:	3248 HURON RIVER DR.		
Well depth:	61		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1977-12-14 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	57		
Screen frm:	57		
Screen to:	61		
Swl:	17		
Test depth:	33		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3213330528		
Longitude:	-83.7947432949		
Methd coll:	Interpolation-Map		
Elevation:	810		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	810	Elev dif:	0
Elev miv:	810	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	52		
Pct aq d:	52	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	48
Pct cm d:	48	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	44	A pct aq2:	34
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	66	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	44		
Horiz Conduct:	102.27279		
Vert Conduct:	.00015		
T2:	4500.0029		
D50plek:	318.92768		

**P48  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056049**

Wellid:	81000003867	Import id:	81727513050
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	CHAIKEN, SCOTT		
Well addr:	3353 ROBINWOOD DR.		
Well depth:	100		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1968-11-04 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	100		
Screen frm:	96		
Screen to:	100		
Swl:	70		
Test depth:	71		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3100099408		
Longitude:	-83.7940312608		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	11
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	79

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	79	Pct cm r:	0
Pct pcm:	8	Pct pcm d:	8
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	100	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Clay
A sc lmod1:	Hard	A sc lmaq1:	CM
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	40	Pct na 1:	0
Pct aq 2:	25	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**M49**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000057496**

Wellid:	81000003759	Import id:	81727511019
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	KERR, ROBERT		
Well addr:	3715 RIVER PINES DR.		
Well depth:	202		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	1760
Const date:	1985-07-02 00:00:00.000	Case type:	Unknown
Case dia:	0		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3198365972		
Longitude:	-83.8028989714		
Methd coll:	Interpolation-Map		
Elevation:	898		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	902	Elev dif:	4
Elev miv:	898	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq:	5		
Pct aq d:	6	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	54
Pct cm d:	54	Pct cm r:	100
Pct pcm:	40	Pct pcm d:	41
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	200
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	55
Pct maq 1:	0	Pct cm 1:	45
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	35
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	44	Pct pcm 6:	56
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	100	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00456		
Vert Conduct:	.00018		
T2:	.8199		
D50plek:	.41336		

**50  
ENE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000057139**

Wellid:	81000003779	Import id:	81727512014
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	YOUNG, GLOBE		
Well addr:	3160 DALEVIEW DR. LOT 36		
Well depth:	84		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1979-08-31 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	79		
Screen frm:	79		
Screen to:	83		
Swl:	42		
Test depth:	42		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.317431054		
Longitude:	-83.7889822709		
Methd coll:	Interpolation-Map		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	830	Elev dif:	10
Elev miv:	840	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	87		
Pct aq d:	87	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	13
Pct cm d:	13	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	41	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	41	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**51  
South  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000055951**

Wellid:	81000003868	Import id:	81727513051
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	ANDERSON, MARTIN		
Well addr:	3377 ROBINWOOD RD.		
Well depth:	100		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1969-07-21 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	100		
Screen frm:	96		
Screen to:	100		
Swl:	70		
Test depth:	75		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3095331046		
Longitude:	-83.7953209632		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	882	Elev dif:	2
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	3

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	3	Pct cm r:	0
Pct pcm:	75	Pct pcm d:	75
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	30	A pct aq:	73
A pct maq:	0	A pct pcm:	27
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	73
A pct maq2:	0	A pct pcm2:	27
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	15
Pct pcm 1:	85	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	10	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	90
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	30		
Horiz Conduct:	73.3336		
Vert Conduct:	.00375		
T2:	2200.008		
D50plek:	110.2013		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**52**  
**ESE**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI3000000056489**

Wellid:	81000014457	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	CONLIN, PHIL/FAJEN, JAMES		
Well addr:	3220 W. HURON RIVER DRIVE		
Well depth:	66		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2215
Const date:	2004-02-19 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	62		
Screen frm:	61		
Screen to:	66		
Swl:	20		
Test depth:	0		
Test hours:	4		
Test rate:	50	Test methd:	Air
Grouted:	1	Pmp cpcity:	20
Latitude:	42.312931		
Longitude:	-83.78932		
Methd coll:	Address Matching-House Number		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	797	Elev dif:	53
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	68		
Pct aq d:	68	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	11
Pct cm d:	11	Pct cm r:	0
Pct pcm:	21	Pct pcm d:	21
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	15	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	46	A pct aq2:	54
A pct maq2:	0	A pct pcm2:	30
A pct cm2:	15	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	70
Pct na 2:	0	Pct aq 3:	65
Pct maq 3:	0	Pct cm 3:	35
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	46		
Horiz Conduct:	54.34815		
Vert Conduct:	.00055		
T2:	2500.0147		
D50plek:	190.77031		

**P53  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056076**

Wellid:	81000003865	Import id:	81727513048
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	NOLD, MICHAEL		
Well addr:	2909 PARKRIDGE DR.		
Well depth:	136		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1986-10-01 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	136		
Screen frm:	132		
Screen to:	136		
Swl:	89		
Test depth:	89		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3101948383		
Longitude:	-83.7927228068		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	882	Elev dif:	2
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	10		
Pct aq d:	10	Pct aq r:	0
Pct maq:	5	Pct maq d:	5
Pct maq r:	0	Pct cm:	69
Pct cm d:	69	Pct cm r:	0
Pct pcm:	16	Pct pcm d:	16
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	65
A pct maq:	35	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	47	A pct aq2:	28
A pct maq2:	15	A pct pcm2:	0
A pct cm2:	57	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	10
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	8	Pct maq 6:	28
Pct cm 6:	64	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	47		
Horiz Conduct:	82.98027		
Vert Conduct:	.00017		
T2:	3900.0727		
D50plek:	297.35465		

**54**  
**NNW**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI300000057723**

Wellid:	81000003814	Import id:	81727512049
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	BASS, SAMUEL R.		
Well addr:	3447 RIVER PINES DR.		
Well depth:	52		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	657
Const date:	1986-02-22 00:00:00.000	Case type:	Steel-black
Case dia:	0		
Case depth:	0		
Screen frm:	48		
Screen to:	52		
Swl:	12		
Test depth:	0		
Test hours:	4		
Test rate:	27	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3213744966		
Longitude:	-83.8001182835		
Methd coll:	Interpolation-Map		
Elevation:	820		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	813	Elev dif:	7
Elev miv:	820	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	10		
Pct aq d:	10	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	90

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	90	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	40	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	88	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	40		
Horiz Conduct:	12.50009		
Vert Conduct:	.00011		
T2:	500.0035		
D50plek:	36.13304		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**N55**  
**SSW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI3000000056052**

Wellid:	81000003941	Import id:	81727514040
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	CLAGUE, RICHARD		
Well addr:	2651 N. WAGNER RD.		
Well depth:	117		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1984-03-29 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	117		
Screen frm:	113		
Screen to:	117		
Swl:	26		
Test depth:	78		
Test hours:	3		
Test rate:	16	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.310017851		
Longitude:	-83.8006994767		
Methd coll:	Interpolation-Map		
Elevation:	848		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	2
Elev miv:	848	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	27		
Pct aq d:	27	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	73
Pct cm d:	73	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	91	A pct aq2:	21
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	79	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	65
Pct maq 1:	0	Pct cm 1:	35
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	15
Pct maq 5:	0	Pct cm 5:	85
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	91		
Horiz Conduct:	46.70338		
Vert Conduct:	.00013		
T2:	4250.0072		
D50plek:	624.71874		

**O56**  
**ENE**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI300000057027**

Wellid:	81000003776	Import id:	81727512011
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	FELDSTEIN, JERRY		
Well addr:	2930 DALEVIEW DR.		
Well depth:	58		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1966-11-16 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	58		
Screen frm:	54		
Screen to:	58		
Swl:	24		
Test depth:	24		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3168698032		
Longitude:	-83.7884963426		
Methd coll:	Interpolation-Map		
Elevation:	822		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	820	Elev dif:	2
Elev miv:	822	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	48		
Pct aq d:	48	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	9
Pct cm d:	9	Pct cm r:	0
Pct pcm:	43	Pct pcm d:	43
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	28	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	34	A pct aq2:	82
A pct maq2:	0	A pct pcm2:	3
A pct cm2:	15	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	25	Pct pcm 2:	25
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	34		
Horiz Conduct:	164.70619		
Vert Conduct:	.00068		
T2:	5600.0105		
D50plek:	303.41193		

**Q57**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000055874**

Wellid:	81000014391	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	ALLEN EMERY		
Well addr:	3425 ROBINWOOD		
Well depth:	176		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2004-01-06 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	166		
Screen frm:	166		
Screen to:	176		
Swl:	66		
Test depth:	66		
Test hours:	2		
Test rate:	7	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	18
Latitude:	42.30912		
Longitude:	-83.797242		
Methd coll:	Address Matching-House Number		
Elevation:	850		
Elev methd:	Topographic Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	22
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	9		
Pct aq d:	9	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	91

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	91	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	15	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	110	A pct aq2:	14
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	86	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	110		
Horiz Conduct:	40.90918		
Vert Conduct:	.00012		
T2:	4500.0095		
D50plek:	797.32032		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**R58**  
**ENE**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000057385**

Wellid:	81000003781	Import id:	81727512016
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	PONCE, LEON		
Well addr:	3345 DALEVIEW DR.		
Well depth:	113		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1988-06-04 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	105		
Screen frm:	105		
Screen to:	113		
Swl:	55		
Test depth:	55		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3191365077		
Longitude:	-83.7895137103		
Methd coll:	Interpolation-Map		
Elevation:	855		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	19
Elev miv:	855	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	88		
Pct aq d:	88	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	12	Pct pcm d:	12
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	46	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	58	A pct aq2:	79
A pct maq2:	0	A pct pcm2:	21
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel & Boulders
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	70
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	30	Pct na 3:	0
Pct aq 4:	65	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	35
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	58		
Horiz Conduct:	237.9331		
Vert Conduct:	.04833		
T2:	13800.12		
D50plek:	1221.69134		

**R59  
ENE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS MI300000057323**

Wellid:	81000014664	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	ROOT, WILLIAM		
Well addr:	3451 DALEVIEW		
Well depth:	109		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2215
Const date:	2004-06-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	104		
Screen frm:	103		
Screen to:	109		
Swl:	55		
Test depth:	0		
Test hours:	4		
Test rate:	20	Test methd:	Air
Grouted:	1	Pmp cpcity:	12
Latitude:	42.318601		
Longitude:	-83.789059		
Methd coll:	Address Matching-House Number		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	7
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	41
Pct cm d:	41	Pct cm r:	0
Pct pcm:	37	Pct pcm d:	37
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	85
A pct maq:	0	A pct pcm:	0
A pct cm:	15	A pct na:	0
A thickns2:	54	A pct aq2:	31
A pct maq2:	0	A pct pcm2:	7
A pct cm2:	61	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	75	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	25	Pct pcm 2:	75
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	60
Pct pcm 3:	30	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	80	Pct pcm 4:	20
Pct na 4:	0	Pct aq 5:	55
Pct maq 5:	0	Pct cm 5:	45
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	54		
Horiz Conduct:	72.22302		
Vert Conduct:	.00016		
T2:	3900.0433		
D50plek:	341.63907		

**S60  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056024**

Wellid:	81000003864	Import id:	81727513047
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	TU, KUO		
Well addr:	2889 PARKRIDGE DR.		
Well depth:	118		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-06-04 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	108		
Screen frm:	108		
Screen to:	118		
Swl:	96		
Test depth:	96		
Test hours:	2		
Test rate:	5	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.309884542		
Longitude:	-83.7924075582		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	886	Elev dif:	6
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	8		
Pct aq d:	8	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	73

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	73	Pct cm r:	0
Pct pcm:	19	Pct pcm d:	19
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	22	A pct aq2:	45
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	55	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	10
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	22		
Horiz Conduct:	22.72733		
Vert Conduct:	.00018		
T2:	500.0012		
D50plek:	19.87309		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**O61**  
**East**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI3000000056956**

Wellid:	81000003775	Import id:	81727512010
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	ROTHE, ALAN		
Well addr:	2925 DALEVIEW DR.		
Well depth:	47		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1975-10-14 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	47		
Screen frm:	41		
Screen to:	45		
Swl:	20		
Test depth:	20		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3163108478		
Longitude:	-83.7880316623		
Methd coll:	Interpolation-Map		
Elevation:	872		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	813	Elev dif:	59
Elev miv:	872	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	43		
Pct aq d:	43	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	57
Pct cm d:	57	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	25	A pct aq2:	20
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	80	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	75
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	25		
Horiz Conduct:	20.00008		
Vert Conduct:	.00012		
T2:	500.002		
D50plek:	22.58309		

**N62  
SSW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000055958**

Wellid:	81000003942	Import id:	81727514041
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	SHOWALTER, HOWARD		
Well addr:	3578 LAMPLIGHTER CIRCLE		
Well depth:	101		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1980-10-15 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	98		
Screen frm:	98		
Screen to:	101		
Swl:	30		
Test depth:	35		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3095588115		
Longitude:	-83.8005869376		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	0
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	25		
Pct aq d:	25	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	75
Pct cm d:	75	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	71	A pct aq2:	6
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	94	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	15
Pct maq 5:	0	Pct cm 5:	85
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	71		
Horiz Conduct:	5.6339		
Vert Conduct:	.00011		
T2:	400.0067		
D50plek:	51.95105		

**R63  
ENE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000057375**

Wellid:	81000012779	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	CHARLES SMITH		
Well addr:	3625 DALEVIEW		
Well depth:	165		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2002-10-08 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	152		
Screen frm:	152		
Screen to:	160		
Swl:	111		
Test depth:	126		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.31901156		
Longitude:	-83.78905241		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	850
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	5		
Pct aq d:	5	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	95

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	95	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	49	A pct aq2:	16
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	84	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	49		
Horiz Conduct:	16.32661		
Vert Conduct:	.00012		
T2:	800.0041		
D50plek:	69.02496		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**M64**  
**NW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000057630**

Wellid:	81000003760	Import id:	81727511020
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	BUTLER, GERALD		
Well addr:	3740 RIVER PINE DR.		
Well depth:	145		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1984-08-30 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	145		
Screen frm:	137		
Screen to:	145		
Swl:	93		
Test depth:	95		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3206168877		
Longitude:	-83.8030883162		
Methd coll:	Interpolation-Map		
Elevation:	895		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	899	Elev dif:	4
Elev miv:	895	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	39		
Pct aq d:	39	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	49
Pct cm d:	49	Pct cm r:	0
Pct pcm:	12	Pct pcm d:	12
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	52	A pct aq2:	35
A pct maq2:	0	A pct pcm2:	13
A pct cm2:	52	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	50
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	50	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	55	Pct maq 2:	0
Pct cm 2:	45	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	25	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	95
Pct maq 5:	0	Pct cm 5:	5
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	72	Pct pcm 6:	28
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	52		
Horiz Conduct:	103.84634		
Vert Conduct:	.00019		
T2:	5400.0097		
D50plek:	448.26473		

**Q65**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000055822**

Wellid:	81000003876	Import id:	81727513059
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	CLAGUE, ALLAN		
Well addr:	3444 ROBINWOOD DR.		
Well depth:	140		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1970-07-29 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	136		
Screen frm:	136		
Screen to:	140		
Swl:	57		
Test depth:	66		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3088253709		
Longitude:	-83.7983834103		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	869	Elev dif:	4
Elev miv:	865	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	11		
Pct aq d:	11	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	78
Pct cm d:	78	Pct cm r:	0
Pct pcm:	11	Pct pcm d:	11
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	11	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	83	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	87	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	75	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	83		
Horiz Conduct:	13.2531		
Vert Conduct:	.00012		
T2:	1100.0072		
D50plek:	158.04973		

**T66  
SSW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056020**

Wellid:	81000003936	Import id:	81727514035
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	DERMODY, CHRIS		
Well addr:	3622 LAMPLIGHTER DR.		
Well depth:	104		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-04-14 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	100		
Screen frm:	100		
Screen to:	104		
Swl:	27		
Test depth:	27		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3098713855		
Longitude:	-83.8020306814		
Methd coll:	Interpolation-Map		
Elevation:	848		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	2
Elev miv:	848	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	19		
Pct aq d:	19	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	81

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	81	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	77	A pct aq2:	10
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	90	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	60
Pct maq 1:	0	Pct cm 1:	40
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	20
Pct maq 5:	0	Pct cm 5:	80
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	77		
Horiz Conduct:	10.3897		
Vert Conduct:	.00011		
T2:	800.0069		
D50plek:	108.46815		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**R67**  
**ENE**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000057337**

Wellid:	81000003766	Import id:	81727512001
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	BRUDE, MARVIN		
Well addr:	2820 BYINGTON BLVD.		
Well depth:	80		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-06-28 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	76		
Screen frm:	76		
Screen to:	80		
Swl:	50		
Test depth:	55		
Test hours:	0		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.318783508		
Longitude:	-83.7886330989		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	4
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	69		
Pct aq d:	69	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	31
Pct cm d:	31	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	17
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	83	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	25	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	30		
Horiz Conduct:	50.00008		
Vert Conduct:	.00012		
T2:	1500.0025		
D50plek:	76.63863		

**T68  
SW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000056055**

Wellid:	81000003935	Import id:	81727514034
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	OLAGUE, RICHARD		
Well addr:	3644 LAMPLIGHTER DR.		
Well depth:	80		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1977-11-11 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	76		
Screen frm:	76		
Screen to:	80		
Swl:	25		
Test depth:	33		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3100342409		
Longitude:	-83.8025274541		
Methd coll:	Interpolation-Map		
Elevation:	846		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	3
Elev miv:	846	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	95		
Pct aq d:	95	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	5
Pct cm d:	5	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	55	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	55	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	80
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	55		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	5500		
D50plek:	482.47246		

**T69  
SSW  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000055949**

Wellid:	81000003937	Import id:	81727514036
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	HALLMAN, NORM		
Well addr:	3600 LAMPLIGHTER DR.		
Well depth:	100		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1979-11-29 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	97.5		
Screen to:	99.5		
Swl:	24		
Test depth:	36		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3095306496		
Longitude:	-83.8015326523		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	0
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	26		
Pct aq d:	26	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	74

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	74	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	3	A pct aq:	80
A pct maq:	0	A pct pcm:	0
A pct cm:	20	A pct na:	0
A thickns2:	76	A pct aq2:	3
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	97	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	75	A sc lith2:	Clay
A sc lmod2:	Not Reported	A sc lmaq2:	CM
A sc lpct2:	25	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	20	Pct maq 2:	0
Pct cm 2:	80	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	10
Pct maq 5:	0	Pct cm 5:	90
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	76		
Horiz Conduct:	8.55273		
Vert Conduct:	.0001		
T2:	650.00735		
D50plek:	87.97146		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**Q70**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI3000000055792**

Wellid:	81000011724	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	WILLIAM & LOIS LOVEJOY		
Well addr:	3465 ROBINWOOD		
Well depth:	67		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	2001-07-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	58		
Screen frm:	57		
Screen to:	61		
Swl:	20		
Test depth:	61		
Test hours:	4		
Test rate:	18	Test methd:	Air
Grouted:	1	Pmp cpcity:	12
Latitude:	42.30866408		
Longitude:	-83.79821979		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	869	Elev dif:	869
Elev miv:	869	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	60
Pct cm d:	60	Pct cm r:	0
Pct pcm:	12	Pct pcm d:	12
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	41	A pct aq2:	29
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	71	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	35
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	40	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	41		
Horiz Conduct:	29.26836		
Vert Conduct:	.00014		
T2:	1200.0029		
D50plek:	84.77872		

**U71  
ENE  
1/4 - 1/2 Mile  
Lower**

**MI WELLS      MI300000057053**

Wellid:	81000003774	Import id:	81727512009
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	LAWTON, RICHARD		
Well addr:	2888 DALEVIEW DR.		
Well depth:	92		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-05-29 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	88		
Screen frm:	88		
Screen to:	92		
Swl:	23		
Test depth:	27		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3169942874		
Longitude:	-83.7875284091		
Methd coll:	Interpolation-Map		
Elevation:	820		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	810	Elev dif:	10
Elev miv:	820	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	34		
Pct aq d:	34	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	66
Pct cm d:	66	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	69	A pct aq2:	12
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	88	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	69		
Horiz Conduct:	11.59429		
Vert Conduct:	.00011		
T2:	800.0061		
D50plek:	97.19864		

**S72  
SSE  
1/4 - 1/2 Mile  
Higher**

**MI WELLS      MI300000055946**

Wellid:	81000003863	Import id:	81727513046
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	WICHAL, MAX		
Well addr:	2865 PARKRIDGE DR.		
Well depth:	127		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1985-06-14 00:00:00.000	Case type:	PVC Plastic
Case dia:	0		
Case depth:	0		
Screen frm:	119		
Screen to:	127		
Swl:	105		
Test depth:	107		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3095159897		
Longitude:	-83.79178228		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	902	Elev dif:	2
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	21		
Pct aq d:	21	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	79

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	79	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	22	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	22	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	100	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	22		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	2200		
D50plek:	80.81401		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**T73**  
**SW**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI300000056062**

Wellid:	81000003934	Import id:	81727514033
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	GENOVA, NICHOLAS		
Well addr:	3666 LAMPLIGHTER DR.		
Well depth:	54		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1970-12-17 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	50		
Screen frm:	50		
Screen to:	54		
Swl:	26		
Test depth:	31		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.310084006		
Longitude:	-83.803123157		
Methd coll:	Interpolation-Map		
Elevation:	845		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	840	Elev dif:	5
Elev miv:	845	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	46		
Pct aq d:	46	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	54
Pct cm d:	54	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	9	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	28	A pct aq2:	32
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	68	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	80
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	28		
Horiz Conduct:	32.14292		
Vert Conduct:	.00015		
T2:	900.0019		
D50plek:	44.09289		

**R74  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057510**

Wellid:	81000003783	Import id:	81727512018
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	SEDMAN, ALLEN J.		
Well addr:	3411 DALEVIEW DR.		
Well depth:	113		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1872
Const date:	1985-04-05 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	109		
Screen frm:	109		
Screen to:	113		
Swl:	73		
Test depth:	73		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3199333231		
Longitude:	-83.7890297991		
Methd coll:	Interpolation-Map		
Elevation:	860		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	17
Elev miv:	860	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	46		
Pct aq d:	46	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	8
Pct cm d:	8	Pct cm r:	0
Pct pcm:	46	Pct pcm d:	46
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	40	A pct aq2:	50
A pct maq2:	0	A pct pcm2:	38
A pct cm2:	13	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	80	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	60	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	40
Pct na 4:	0	Pct aq 5:	35
Pct maq 5:	0	Pct cm 5:	25
Pct pcm 5:	40	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	40		
Horiz Conduct:	150.00039		
Vert Conduct:	.00062		
T2:	6000.0155		
D50plek:	381.16835		

**Q75**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI30000005735**

Wellid:	81000003875	Import id:	81727513058
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	EMERY, ALAN		
Well addr:	3425 ROBINWOOD DR.		
Well depth:	166		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1966-10-31 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	166		
Screen frm:	162		
Screen to:	166		
Swl:	64		
Test depth:	64		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.308221367		
Longitude:	-83.7973950671		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	886	Elev dif:	6
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	78

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	78	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	102	A pct aq2:	7
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	93	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	102		
Horiz Conduct:	13.72558		
Vert Conduct:	.00011		
T2:	1400.0095		
D50plek:	244.07975		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**V76**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056416**

Wellid:	81000003851	Import id:	81727513034
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SPALY, ROBERT		
Well addr:	2700 PARKRIDGE DR.		
Well depth:	122		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1977-08-07 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	122		
Screen frm:	118		
Screen to:	122		
Swl:	75		
Test depth:	75		
Test hours:	2		
Test rate:	22	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3124314445		
Longitude:	-83.7878113426		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	7
Elev miv:	865	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	82
Pct cm d:	82	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	47	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	87	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	70
Pct pcm 1:	0	Pct na 1:	30

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	47		
Horiz Conduct:	12.76604		
Vert Conduct:	.00011		
T2:	600.0041		
D50plek:	50.43858		

**77  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000056094**

Wellid:	81000003852	Import id:	81727513035
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	TOSHACK, MRS.		
Well addr:	2818 PARKRIDGE DR.		
Well depth:	157		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	388
Const date:	1971-11-01 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	153		
Screen frm:	153		
Screen to:	157		
Swl:	130		
Test depth:	140		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3103194363		
Longitude:	-83.7897577233		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	895	Elev dif:	5
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	19		
Pct aq d:	19	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	1
Pct cm d:	1	Pct cm r:	0
Pct pcm:	80	Pct pcm d:	80
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	27	A pct aq:	93
A pct maq:	0	A pct pcm:	0
A pct cm:	7	A pct na:	0
A thickns2:	27	A pct aq2:	93
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	7	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	100
Pct na 6:	0	Pct aq 7:	92
Pct maq 7:	0	Pct cm 7:	8
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	27		
Horiz Conduct:	92.5926		
Vert Conduct:	.00135		
T2:	2500.0002		
D50plek:	111.97326		

**W78  
South  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055726**

Wellid:	8100003874	Import id:	81727513057
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	LONG, LONNIE		
Well addr:	3445 ROBINWOOD DR.		
Well depth:	49		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-06-05 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	45		
Screen frm:	45		
Screen to:	49		
Swl:	9		
Test depth:	27		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3081587774		
Longitude:	-83.7983373612		
Methd coll:	Interpolation-Map		
Elevation:	875		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	3
Elev miv:	875	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	8		
Pct aq d:	8	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	92

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	92	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	40	A pct aq2:	10
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	90	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	40		
Horiz Conduct:	10.00009		
Vert Conduct:	.00011		
T2:	400.0036		
D50plek:	29.26798		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**X79**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057448**

Wellid:	81000003782	Import id:	81727512017
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	MARKER, THOMAS		
Well addr:	3400 DALEVIEW DR.		
Well depth:	141		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-10-29 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	137		
Screen to:	141		
Swl:	60		
Test depth:	62		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3195596045		
Longitude:	-83.7882639814		
Methd coll:	Interpolation-Map		
Elevation:	860		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	4
Elev miv:	860	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	33		
Pct aq d:	33	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	67
Pct cm d:	67	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	81	A pct aq2:	7
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	93	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	81		
Horiz Conduct:	7.4075		
Vert Conduct:	.00011		
T2:	600.0075		
D50plek:	86.92652		

**Y80  
SW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056038**

Wellid:	81000003933	Import id:	81727514032
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	KISSNER, PAUL		
Well addr:	3688 LAMPLIGHTER DR.		
Well depth:	48		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-04-16 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	44		
Screen frm:	44		
Screen to:	48		
Swl:	18		
Test depth:	22		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3099586298		
Longitude:	-83.8037813439		
Methd coll:	Interpolation-Map		
Elevation:	845		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	2
Elev miv:	845	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	48		
Pct aq d:	48	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	52
Pct cm d:	52	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	17
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	83	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	30		
Horiz Conduct:	16.66675		
Vert Conduct:	.00012		
T2:	500.0025		
D50plek:	27.09973		

**X81  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057357**

Wellid:	81000003767	Import id:	81727512002
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	ZAHN, DOUGLAS		
Well addr:	2770 BYINGTON BLVD.		
Well depth:	102		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-05-19 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	98		
Screen frm:	98		
Screen to:	102		
Swl:	39		
Test depth:	61		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3188884127		
Longitude:	-83.7875821149		
Methd coll:	Interpolation-Map		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	4
Elev miv:	840	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	47		
Pct aq d:	47	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	53

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	53	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	63	A pct aq2:	14
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	86	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	10
Pct maq 5:	0	Pct cm 5:	90
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	63		
Horiz Conduct:	26.98421		
Vert Conduct:	.00012		
T2:	1700.0054		
D50plek:	181.21671		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**Z82**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055768**

Wellid:	81000003943	Import id:	81727514042
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	SEYFERTH, JOHN		
Well addr:	2575 N. WAGNER RD.		
Well depth:	108		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-09-29 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	104		
Screen frm:	104		
Screen to:	108		
Swl:	41		
Test depth:	43		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3084706339		
Longitude:	-83.8006673775		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	6
Elev miv:	865	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	19		
Pct aq d:	19	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	81
Pct cm d:	81	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	67	A pct aq2:	6
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	94	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	80
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	67		
Horiz Conduct:	11.94039		
Vert Conduct:	.00011		
T2:	800.0063		
D50plek:	94.38131		

**W83  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055705**

Wellid:	81000003873	Import id:	81727513056
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	KEEN, JAMES		
Well addr:	3465 ROBINWOOD DR.		
Well depth:	63		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-11-20 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	56		
Screen frm:	56		
Screen to:	60		
Swl:	7		
Test depth:	32		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3080769366		
Longitude:	-83.799045072		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	2
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	32		
Pct aq d:	32	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	63
Pct cm d:	63	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	5
Pct na d:	5	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	53	A pct aq2:	30
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	70	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	70
Pct maq 1:	0	Pct cm 1:	15
Pct pcm 1:	0	Pct na 1:	15
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	30
Pct maq 3:	0	Pct cm 3:	70
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	53		
Horiz Conduct:	39.62271		
Vert Conduct:	.00014		
T2:	2100.0037		
D50plek:	186.28244		

**W84  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055728**

Wellid:	81000003872	Import id:	81727513055
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	JOHANSSON, LENNART		
Well addr:	3485 ROBINWOOD DR.		
Well depth:	54		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-06-20 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	54		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	17		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.30817498		
Longitude:	-83.7996680672		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL = 0		
Elev dem:	866	Elev dif:	1
Elev miv:	865	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	31		
Pct aq d:	31	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	69

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	69	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	75
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**T85**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055891**

Wellid:	81000003925	Import id:	81727514024
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	DALY, PEARL		
Well addr:	3652 PHEASANT DR.		
Well depth:	73		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1979-01-17 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	72		
Screen frm:	72		
Screen to:	73		
Swl:	26		
Test depth:	41		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3092415313		
Longitude:	-83.8027864974		
Methd coll:	Interpolation-Map		
Elevation:	846		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	0
Elev miv:	846	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	15		
Pct aq d:	15	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	85
Pct cm d:	85	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	3	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	47	A pct aq2:	23
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	77	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	40	Pct maq 2:	0
Pct cm 2:	60	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	47		
Horiz Conduct:	23.40433		
Vert Conduct:	.00013		
T2:	1100.0036		
D50plek:	89.49776		

**AA86  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055881**

Wellid:	81000003862	Import id:	81727513045
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	GREEN, MARJORIE		
Well addr:	2851 PARKRIDGE DR.		
Well depth:	150		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1988-05-04 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	142		
Screen frm:	142		
Screen to:	150		
Swl:	85		
Test depth:	88		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3091602401		
Longitude:	-83.7910690978		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	1
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	21		
Pct aq d:	21	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	11
Pct cm d:	11	Pct cm r:	0
Pct pcm:	68	Pct pcm d:	68
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	11	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	65	A pct aq2:	37
A pct maq2:	0	A pct pcm2:	63
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	65
Pct pcm 1:	35	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	20	Pct pcm 2:	80
Pct na 2:	0	Pct aq 3:	15
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	85	Pct na 3:	0
Pct aq 4:	20	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	80
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	52	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	48
Pct na 6:	0	Pct aq 7:	44
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	56	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	65		
Horiz Conduct:	36.92938		
Vert Conduct:	.01585		
T2:	2400.41		
D50plek:	259.36268		

**87**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056308**

Wellid:	81000003910	Import id:	81727514009
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	SEYFRIED, JAN		
Well addr:	2122 E. DELHI RD.		
Well depth:	50		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1075
Const date:	1972-02-24 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	50		
Screen frm:	46		
Screen to:	50		
Swl:	29		
Test depth:	30		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3117674953		
Longitude:	-83.8059869894		
Methd coll:	Interpolation-Map		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	833	Elev dif:	7
Elev miv:	840	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	42		
Pct aq d:	42	Pct aq r:	0
Pct maq:	56	Pct maq d:	56
Pct maq r:	0	Pct cm:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	2
Pct na d:	2	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	21	A pct aq:	33
A pct maq:	67	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	21	A pct aq2:	33
A pct maq2:	67	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	70
Pct maq 1:	25	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	5
Pct aq 2:	0	Pct maq 2:	100
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	21		
Horiz Conduct:	53.33333		
Vert Conduct:	39.13043		
T2:	1120		
D50plek:	40.67642		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**Y88  
 SW  
 1/2 - 1 Mile  
 Higher**

**MI WELLS      MI300000056070**

Wellid:	81000003932	Import id:	81727514031
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	YOCUM, CHAS		
Well addr:	3720 LAMPLIGHTER DR.		
Well depth:	57		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1975-08-27 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	57		
Screen frm:	53		
Screen to:	57		
Swl:	22		
Test depth:	28		
Test hours:	4		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3101439118		
Longitude:	-83.8043990056		
Methd coll:	Interpolation-Map		
Elevation:	844		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	840	Elev dif:	4
Elev miv:	844	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	39		
Pct aq d:	39	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	61
Pct cm d:	61	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	35	A pct aq2:	11
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	89	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	35		
Horiz Conduct:	34.2858		
Vert Conduct:	.00011		
T2:	1200.0031		
D50plek:	72.37209		

**U89  
East  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI300000057063**

Wellid:	81000003772	Import id:	81727512007
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	KNAKE, JAMES		
Well addr:	2826 DALEVIEW DR.		
Well depth:	57		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-03-09 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	49		
Screen frm:	49		
Screen to:	53		
Swl:	20		
Test depth:	20		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3170430878		
Longitude:	-83.786533404		
Methd coll:	Interpolation-Map		
Elevation:	822		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	817	Elev dif:	5
Elev miv:	822	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	93		
Pct aq d:	93	Pct aq r:	0
Pct maq:	4	Pct maq d:	4
Pct maq r:	0	Pct cm:	4
Pct cm d:	4	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	33	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	33	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	33		
Horiz Conduct:	200		
Vert Conduct:	200		
T2:	6600		
D50plek:	344.31263		

**U90  
East  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI300000057061**

Wellid:	81000011830	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	RICK & ANN LAWTON		
Well addr:	2888 DALEVIEW		
Well depth:	98		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2001-10-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	88		
Screen frm:	88		
Screen to:	93		
Swl:	23		
Test depth:	25		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.31702933		
Longitude:	-83.78651968		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	813	Elev dif:	813
Elev miv:	813	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	72

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	72	Pct cm r:	0
Pct pcm:	5	Pct pcm d:	5
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	70	A pct aq2:	10
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	90	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	75
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	70		
Horiz Conduct:	30.00009		
Vert Conduct:	.00011		
T2:	2100.0063		
D50plek:	246.0337		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**U91**  
**East**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI3000000056974**

Wellid:	81000003773	Import id:	81727512008
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	RASMUSSEN, PAUL		
Well addr:	2831 DALEVIEW DR.		
Well depth:	51		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1075
Const date:	1973-09-16 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	51		
Screen frm:	0		
Screen to:	0		
Swl:	22		
Test depth:	24		
Test hours:	2		
Test rate:	30	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3164765818		
Longitude:	-83.7863710592		
Methd coll:	Interpolation-Map		
Elevation:	820		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	807	Elev dif:	13
Elev miv:	820	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	45		
Pct aq d:	45	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	55
Pct cm d:	55	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**AB92  
WSW  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000056607**

Wellid:	81000014842	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	CHRISTIAN TENNANT CUSTOM		
Well addr:	3967 DELHI GLEN		
Well depth:	132		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2004-02-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	118		
Screen frm:	118		
Screen to:	132		
Swl:	75		
Test depth:	75		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	25
Latitude:	42.31369413		
Longitude:	-83.8071856		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	892	Elev dif:	892
Elev miv:	892	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	74		
Pct aq d:	74	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	17
Pct cm d:	17	Pct cm r:	0
Pct pcm:	8	Pct pcm d:	8
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	57	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	57	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	45
Pct pcm 1:	55	Pct na 1:	0
Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	100	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	57		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	5700		
D50plek:	517.29647		

**AC93  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056176**

Wellid:	81000003853	Import id:	81727513036
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	FRAWSWAY, R.		
Well addr:	2785 PARKRIDGE DR.		
Well depth:	135		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	388
Const date:	1968-11-08 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	131		
Screen frm:	131		
Screen to:	135		
Swl:	999.99		
Test depth:	120		
Test hours:	1.5		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3108472804		
Longitude:	-83.7884286989		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	905	Elev dif:	5
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	40		
Pct aq d:	40	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	47

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	47	Pct cm r:	0
Pct pcm:	13	Pct pcm d:	13
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	40
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	90
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	75	Pct maq 4:	0
Pct cm 4:	25	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	60	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	40
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**Y94**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055916**

Wellid:	81000003926	Import id:	81727514025
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	DOLLHOFF, TERRY		
Well addr:	3677 LAMPLIGHTER DR.		
Well depth:	72		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-12-29 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	68		
Screen frm:	68		
Screen to:	72		
Swl:	24		
Test depth:	38		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3093809251		
Longitude:	-83.803472006		
Methd coll:	Interpolation-Map		
Elevation:	846		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	0
Elev miv:	846	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	47		
Pct aq d:	47	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	53
Pct cm d:	53	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	48	A pct aq2:	21
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	79	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	48		
Horiz Conduct:	20.83341		
Vert Conduct:	.00013		
T2:	1000.0038		
D50plek:	83.5149		

**AA95  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055873**

Wellid:	81000003861	Import id:	81727513044
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	GREEN, MARJORIE		
Well addr:	2851 PARKRIDGE DR.		
Well depth:	120		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1988-05-03 00:00:00.000	Case type:	Unknown
Case dia:	0		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3091198041		
Longitude:	-83.7907043848		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	912	Elev dif:	2
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	12		
Pct aq d:	12	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	13
Pct cm d:	13	Pct cm r:	0
Pct pcm:	76	Pct pcm d:	76
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	70	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	15	Pct pcm 2:	85
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	30
Pct pcm 3:	50	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**V96  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056493**

Wellid:	81000003850	Import id:	81727513033
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	TREAT, JOHN		
Well addr:	2686 PARKRIDGE DR.		
Well depth:	94		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1984-06-05 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	94		
Screen frm:	90		
Screen to:	94		
Swl:	70		
Test depth:	72		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3129643665		
Longitude:	-83.7867206738		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	6
Elev miv:	865	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	33		
Pct aq d:	33	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	67

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	67	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	24	A pct aq2:	25
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	75	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	24		
Horiz Conduct:	25.00008		
Vert Conduct:	.00013		
T2:	600.0018		
D50plek:	25.75578		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**97**  
**WNW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000057516**

Wellid:	81000003754	Import id:	81727511014
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	SIKORSKI, ED		
Well addr:	3978 HOLDEN RD.		
Well depth:	167		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1980-11-28 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	163		
Screen frm:	163		
Screen to:	167		
Swl:	90		
Test depth:	91		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3199808321		
Longitude:	-83.8059370821		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	29
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	15		
Pct aq d:	15	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	67
Pct cm d:	67	Pct cm r:	0
Pct pcm:	18	Pct pcm d:	18
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	77	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	17
A pct cm2:	70	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	5
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	80	Pct na 3:	0
Pct aq 4:	55	Pct maq 4:	0
Pct cm 4:	45	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	64	Pct pcm 6:	36
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	84
Pct pcm 7:	16	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	77		
Horiz Conduct:	38.96128		
Vert Conduct:	.00014		
T2:	3000.0184		
D50plek:	379.68139		

**Z98  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055712**

Wellid:	81000003944	Import id:	81727514043
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	CLARK, TOM		
Well addr:	2551 N. WAGNER RD.		
Well depth:	123		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	Not Reported	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	119		
Screen frm:	119		
Screen to:	123		
Swl:	42		
Test depth:	46		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3081160958		
Longitude:	-83.8007665158		
Methd coll:	Interpolation-Map		
Elevation:	869		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	10
Elev miv:	869	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	27		
Pct aq d:	27	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	73
Pct cm d:	73	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	81	A pct aq2:	10
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	90	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	70
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	15
Pct maq 3:	0	Pct cm 3:	85
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	81		
Horiz Conduct:	18.51861		
Vert Conduct:	.00011		
T2:	1500.0073		
D50plek:	206.92492		

**99  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057658**

Wellid:	81000003785	Import id:	81727512020
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	WOOLLAMS, DR. S.		
Well addr:	3443 DALEVIEW DR.		
Well depth:	93		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1966-11-25 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	89		
Screen frm:	89		
Screen to:	93		
Swl:	72		
Test depth:	75		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.320864989		
Longitude:	-83.7887360478		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	14
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	5		
Pct aq d:	5	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	80

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	80	Pct cm r:	0
Pct pcm:	15	Pct pcm d:	15
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	21	A pct aq2:	24
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	76	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	70	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	21		
Horiz Conduct:	47.61912		
Vert Conduct:	.00013		
T2:	1000.0016		
D50plek:	36.53769		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**100**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055775**

Wellid:	81000003924	Import id:	81727514023
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	CLARK, E.S.		
Well addr:	3648 DEERFIELD PL.		
Well depth:	67		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1974-05-20 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	67		
Screen frm:	63		
Screen to:	67		
Swl:	27		
Test depth:	46		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3085383642		
Longitude:	-83.8023248203		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	3
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	51		
Pct aq d:	51	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	49
Pct cm d:	49	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	9	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	40	A pct aq2:	23
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	78	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	25	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	90
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	40		
Horiz Conduct:	22.50008		
Vert Conduct:	.00013		
T2:	900.0031		
D50plek:	62.98992		

**Y101  
SW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056065**

Wellid:	81000003931	Import id:	81727514030
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	COUCOUVANIS, DIMITRI		
Well addr:	3750 LAMPLIGHTER DR.		
Well depth:	67		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1976-08-23 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	67		
Screen frm:	63		
Screen to:	67		
Swl:	21		
Test depth:	22		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3101232117		
Longitude:	-83.8050387453		
Methd coll:	Interpolation-Map		
Elevation:	843		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	7
Elev miv:	843	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	60		
Pct aq d:	60	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	40
Pct cm d:	40	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	46	A pct aq2:	43
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	57	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	65
Pct maq 3:	0	Pct cm 3:	35
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	46		
Horiz Conduct:	86.95658		
Vert Conduct:	.00018		
T2:	4000.0026		
D50plek:	298.11		

**AD102**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055624**

Wellid:	8100003869	Import id:	81727513052
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HILLS, ROBERT		
Well addr:	3340 CRAIG RD.		
Well depth:	162		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	388
Const date:	1978-12-18 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	158		
Screen frm:	158		
Screen to:	162		
Swl:	80		
Test depth:	130		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3074307241		
Longitude:	-83.7961218485		
Methd coll:	Interpolation-Map		
Elevation:	905		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	4
Elev miv:	905	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	20		
Pct aq d:	20	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	43

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	43	Pct cm r:	0
Pct pcm:	38	Pct pcm d:	38
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	22	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	82	A pct aq2:	27
A pct maq2:	0	A pct pcm2:	61
A pct cm2:	12	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Fine	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	45
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	55	Pct na 1:	0
Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	50
Pct pcm 5:	50	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	100
Pct na 6:	0	Pct aq 7:	40
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	60	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	82		
Horiz Conduct:	6.70794		
Vert Conduct:	.00055		
T2:	550.051		
D50plek:	81.05899		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AD103**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055617**

Wellid:	81000003870	Import id:	81727513053
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HARRINGTON, LEO		
Well addr:	3350 CRAIG RD.		
Well depth:	163		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1973-09-10 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	163		
Screen frm:	160		
Screen to:	163		
Swl:	80		
Test depth:	109		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3073854522		
Longitude:	-83.7968477239		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	902	Elev dif:	2
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	1		
Pct aq d:	1	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	99
Pct cm d:	99	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	2	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	83	A pct aq2:	2
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	98	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	67	A sc lith2:	Clay
A sc lmod2:	Not Reported	A sc lmaq2:	CM
A sc lpct2:	33	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	83		
Horiz Conduct:	2.40974		
Vert Conduct:	.0001		
T2:	200.0081		
D50plek:	31.59372		

**AE104  
WNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057125**

Wellid:	81000003753	Import id:	81727511013
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	CORBETT, TOM		
Well addr:	3985 HOLDEN RD.		
Well depth:	134		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1980-10-20 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	134		
Screen frm:	130		
Screen to:	134		
Swl:	60		
Test depth:	65		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3173813234		
Longitude:	-83.8077106344		
Methd coll:	Interpolation-Map		
Elevation:	892		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	892	Elev dif:	0
Elev miv:	892	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	46		
Pct aq d:	46	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	54
Pct cm d:	54	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	74	A pct aq2:	47
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	53	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	70	Pct maq 2:	0
Pct cm 2:	30	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	65
Pct maq 3:	0	Pct cm 3:	35
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	60
Pct maq 5:	0	Pct cm 5:	40
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	68	Pct maq 6:	0
Pct cm 6:	32	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	74		
Horiz Conduct:	47.29735		
Vert Conduct:	.00019		
T2:	3500.0039		
D50plek:	422.42229		

**W105  
South  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055626**

Wellid:	81000003871	Import id:	81727513054
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	CALDWELL, ROBERT		
Well addr:	3424 CRAIG RD.		
Well depth:	171		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1975-12-12 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	171		
Screen frm:	0		
Screen to:	0		
Swl:	64		
Test depth:	65		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3074389572		
Longitude:	-83.7983222669		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	889	Elev dif:	1
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	20		
Pct aq d:	20	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	80

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	80	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	70	Pct maq 2:	0
Pct cm 2:	30	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**Z106**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055722**

Wellid:	81000003923	Import id:	81727514022
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	PARKER, WALTER		
Well addr:	3626 DEERFIELD PL.		
Well depth:	99		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1974-10-24 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	99		
Screen frm:	95		
Screen to:	99		
Swl:	30		
Test depth:	40		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3081457839		
Longitude:	-83.8019418416		
Methd coll:	Interpolation-Map		
Elevation:	852		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	4
Elev miv:	852	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	26		
Pct aq d:	26	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	74
Pct cm d:	74	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	69	A pct aq2:	6
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	94	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	69		
Horiz Conduct:	5.7972		
Vert Conduct:	.00011		
T2:	400.0065		
D50plek:	50.48762		

**AD107  
South  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055605**

Wellid:	81000014505	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	JOHN & LAURA HINDLE		
Well addr:	3233 CRAIG		
Well depth:	192		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2004-04-14 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	182		
Screen frm:	182		
Screen to:	192		
Swl:	85		
Test depth:	85		
Test hours:	2		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.307293		
Longitude:	-83.79584		
Methd coll:	Address Matching-House Number		
Elevation:	889		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	20
Elev miv:	889	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	15		
Pct aq d:	15	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	85
Pct cm d:	85	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	24	A pct aq:	88
A pct maq:	0	A pct pcm:	0
A pct cm:	13	A pct na:	0
A thickns2:	107	A pct aq2:	20
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	80	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	60
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	107		
Horiz Conduct:	16.35522		
Vert Conduct:	.00012		
T2:	1750.0086		
D50plek:	316.35828		

**X108  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057582**

Wellid:	8100003784	Import id:	81727512019
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	FISHER, DR. RICHARD		
Well addr:	3434 DALEVIEW DR.		
Well depth:	103		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-09-16 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	99		
Screen frm:	99		
Screen to:	103		
Swl:	55		
Test depth:	70		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3203248812		
Longitude:	-83.7875168786		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	7
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	49		
Pct aq d:	49	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	51

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	51	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	48	A pct aq2:	21
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	79	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	35
Pct maq 5:	0	Pct cm 5:	65
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	48		
Horiz Conduct:	62.50008		
Vert Conduct:	.00013		
T2:	3000.0038		
D50plek:	236.68341		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AF109**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056579**

Wellid:	81000003849	Import id:	81727513032
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	JONES, LARRY		
Well addr:	2666 PARKRIDGE DR.		
Well depth:	107		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-12-29 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	103		
Screen frm:	103		
Screen to:	107		
Swl:	50		
Test depth:	50		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3134937968		
Longitude:	-83.7858638591		
Methd coll:	Interpolation-Map		
Elevation:	855		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	8
Elev miv:	855	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	7		
Pct aq d:	7	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	93
Pct cm d:	93	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	57	A pct aq2:	14
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	86	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	5
Pct maq 5:	0	Pct cm 5:	95
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	57		
Horiz Conduct:	42.10535		
Vert Conduct:	.00012		
T2:	2400.0049		
D50plek:	227.40469		

**Y110  
SW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055904**

Wellid:	81000003929	Import id:	81727514028
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	SEBOLD, CLARENCE		
Well addr:	3717 LAMPLIGHTER DR.		
Well depth:	50		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1976-07-16 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	50		
Screen frm:	43		
Screen to:	47		
Swl:	17		
Test depth:	29		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3093262067		
Longitude:	-83.8046831908		
Methd coll:	Interpolation-Map		
Elevation:	844		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	1
Elev miv:	844	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	44		
Pct aq d:	44	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	56
Pct cm d:	56	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	17
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	83	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	30		
Horiz Conduct:	43.33342		
Vert Conduct:	.00012		
T2:	1300.0025		
D50plek:	66.91983		

**Y111  
SW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055853**

Wellid:	81000003928	Import id:	81727514027
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	SWEIGGART, R.H.		
Well addr:	3695 PHEASANT DR.		
Well depth:	69		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1973-09-08 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	69		
Screen frm:	65		
Screen to:	69		
Swl:	21		
Test depth:	42		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3090042341		
Longitude:	-83.8042459907		
Methd coll:	Interpolation-Map		
Elevation:	848		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	2
Elev miv:	848	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	36		
Pct aq d:	36	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	19

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	19	Pct cm r:	0
Pct pcm:	45	Pct pcm d:	45
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	48	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	60
A pct cm2:	27	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	95
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	5	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	50	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	48		
Horiz Conduct:	37.50063		
Vert Conduct:	.0003		
T2:	1800.0303		
D50plek:	145.76163		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**Z112**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055658**

Wellid:	81000003922	Import id:	81727514021
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	HARTSOCK, MARK		
Well addr:	3600 DEERFIELD DR.		
Well depth:	113		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1975-07-02 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	113		
Screen frm:	109		
Screen to:	113		
Swl:	40		
Test depth:	45		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3076512124		
Longitude:	-83.8013148253		
Methd coll:	Interpolation-Map		
Elevation:	862		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	1
Elev miv:	862	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	36		
Pct aq d:	36	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	64
Pct cm d:	64	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	73	A pct aq2:	7
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	93	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	80	Pct maq 2:	0
Pct cm 2:	20	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	73		
Horiz Conduct:	20.54804		
Vert Conduct:	.00011		
T2:	1500.0068		
D50plek:	186.48783		

**AG113  
SW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055788**

Wellid:	81000003927	Import id:	81727514026
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	SHAFFER, DR. RONALD		
Well addr:	3673 DEERFIELD DR.		
Well depth:	73		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1972-10-20 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	69		
Screen frm:	69		
Screen to:	73		
Swl:	28		
Test depth:	29		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3086435437		
Longitude:	-83.8038035778		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	4
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	36		
Pct aq d:	36	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	64
Pct cm d:	64	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	45	A pct aq2:	18
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	82	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	90
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	45		
Horiz Conduct:	17.77786		
Vert Conduct:	.00012		
T2:	800.0037		
D50plek:	63.39024		

**AC114  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056098**

Wellid:	81000011241	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	KLEINE CONSTR.		
Well addr:	2786 LAUREL HILL		
Well depth:	183		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-11-10 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	173		
Screen frm:	173		
Screen to:	183		
Swl:	113		
Test depth:	118		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	18
Latitude:	42.31034779		
Longitude:	-83.78763725		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	915	Elev dif:	915
Elev miv:	915	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	12		
Pct aq d:	12	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	74

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	74	Pct cm r:	0
Pct pcm:	14	Pct pcm d:	14
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	70	A pct aq2:	29
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	71	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	30
Pct na 2:	0	Pct aq 3:	5
Pct maq 3:	0	Pct cm 3:	95
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	70		
Horiz Conduct:	85.71436		
Vert Conduct:	.00014		
T2:	6000.005		
D50plek:	667.0435		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AH115**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055954**

Wellid:	81000003930	Import id:	81727514029
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	FERGUSON, JEFF		
Well addr:	3747 LAMPLIGHTER DR.		
Well depth:	66		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1977-09-12 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	62		
Screen frm:	62		
Screen to:	66		
Swl:	27		
Test depth:	28		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3095429579		
Longitude:	-83.8052830229		
Methd coll:	Interpolation-Map		
Elevation:	843		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	0
Elev miv:	843	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	73		
Pct aq d:	73	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	27
Pct cm d:	27	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	17	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	39	A pct aq2:	54
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	46	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	55	Pct maq 2:	0
Pct cm 2:	45	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	55
Pct maq 3:	0	Pct cm 3:	45
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	39		
Horiz Conduct:	53.8462		
Vert Conduct:	.00022		
T2:	2100.0018		
D50plek:	137.07564		

**AB116  
WSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI3000000056590**

Wellid:	81000003907	Import id:	81727514006
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	RAPPAPORT, ROBERT		
Well addr:	2360 E. DELHI RD.		
Well depth:	138		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	657
Const date:	1979-09-14 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	134		
Screen frm:	134		
Screen to:	138		
Swl:	98		
Test depth:	0		
Test hours:	3		
Test rate:	60	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3135590022		
Longitude:	-83.8083112155		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	905	Elev dif:	5
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	14		
Pct aq d:	14	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	31
Pct cm d:	31	Pct cm r:	0
Pct pcm:	47	Pct pcm d:	47
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	67
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	33	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	25
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	68	Pct maq 6:	0
Pct cm 6:	32	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**AF117  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056609**

Wellid:	81000003848	Import id:	81727513031
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	THOMPSON, GEORGE		
Well addr:	2656 PARKRIDGE RD.		
Well depth:	121		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1968-09-02 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	121		
Screen frm:	117		
Screen to:	121		
Swl:	80		
Test depth:	80		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.313698273		
Longitude:	-83.7853721991		
Methd coll:	Interpolation-Map		
Elevation:	854		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	1
Elev miv:	854	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	36		
Pct aq d:	36	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	8

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	8	Pct cm r:	0
Pct pcm:	55	Pct pcm d:	55
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	41	A pct aq2:	15
A pct maq2:	0	A pct pcm2:	85
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	50
Pct pcm 1:	50	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	90
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	10	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	41		
Horiz Conduct:	43.90329		
Vert Conduct:	.00117		
T2:	1800.035		
D50plek:	124.50503		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AI118**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055595**

Wellid:	81000003945	Import id:	81727514044
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	GRIMM, CONSTANCE		
Well addr:	2505 N. WAGNER RD.		
Well depth:	46		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1973-01-26 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	46		
Screen frm:	42		
Screen to:	46		
Swl:	11		
Test depth:	12		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3072219255		
Longitude:	-83.8005255303		
Methd coll:	Interpolation-Map		
Elevation:	872		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	0
Elev miv:	872	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	63		
Pct aq d:	63	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	37
Pct cm d:	37	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	3	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	35	A pct aq2:	51
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	49	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	75	A sc lith2:	Clay
A sc lmod2:	Not Reported	A sc lmaq2:	CM
A sc lpct2:	25	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	35		
Horiz Conduct:	68.57148		
Vert Conduct:	.00021		
T2:	2400.0017		
D50plek:	139.63428		

**AE119**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057103**

Wellid:	81000003752	Import id:	81727511012
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	GOEL, O.M.		
Well addr:	3995 HOLDEN RD.		
Well depth:	123		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1872
Const date:	1983-10-28 00:00:00.000	Case type:	Steel-black
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	116		
Screen frm:	116		
Screen to:	120		
Swl:	90		
Test depth:	90		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3172431363		
Longitude:	-83.8087017555		
Methd coll:	Interpolation-Map		
Elevation:	902		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	902	Elev dif:	0
Elev miv:	902	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	23		
Pct aq d:	23	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	77
Pct cm d:	77	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	17
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	83	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	75
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	30		
Horiz Conduct:	50.00008		
Vert Conduct:	.00012		
T2:	1500.0025		
D50plek:	76.63863		

**AJ120  
NNE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058071**

Wellid:	81000003809	Import id:	81727512044
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	WARREN, DR. PHILIP		
Well addr:	3665 DALEVIEW DR.		
Well depth:	178		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1975-01-17 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	178		
Screen frm:	174		
Screen to:	178		
Swl:	88		
Test depth:	116		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3241774783		
Longitude:	-83.7933875889		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	899	Elev dif:	21
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	12		
Pct aq d:	12	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	88

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	88	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	90	A pct aq2:	4
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	96	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	45
Pct maq 1:	0	Pct cm 1:	55
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	90		
Horiz Conduct:	4.44454		
Vert Conduct:	.0001		
T2:	400.0086		
D50plek:	65.85374		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AJ121**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000058111**

Wellid:	81000003811	Import id:	81727512046
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	ROGERS, DON		
Well addr:	3685 DALEVIEW DR.		
Well depth:	136		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	19
Const date:	1968-01-12 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	131		
Screen frm:	131		
Screen to:	136		
Swl:	77		
Test depth:	0		
Test hours:	2		
Test rate:	8	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3244083999		
Longitude:	-83.7943987775		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	886	Elev dif:	14
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	35
Pct cm d:	35	Pct cm r:	0
Pct pcm:	36	Pct pcm d:	36
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	16	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	59	A pct aq2:	41
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	59	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	65
Pct pcm 1:	30	Pct na 1:	5

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	85	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	15
Pct na 4:	0	Pct aq 5:	25
Pct maq 5:	0	Pct cm 5:	75
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	20	Pct maq 6:	0
Pct cm 6:	80	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	59		
Horiz Conduct:	75.42379		
Vert Conduct:	.00017		
T2:	4450.0035		
D50plek:	423.1347		

**AK122  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057245**

Wellid:	81000003768	Import id:	81727512003
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	NODEN, RONALD		
Well addr:	2651 BYINGTON BLVD.		
Well depth:	71		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-02-22 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	67		
Screen to:	71		
Swl:	42		
Test depth:	42		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3180147473		
Longitude:	-83.7851975429		
Methd coll:	Interpolation-Map		
Elevation:	842		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	6
Elev miv:	842	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	29	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	29	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	29		
Horiz Conduct:	300		
Vert Conduct:	300		
T2:	8700		
D50plek:	393.58636		

**AK123  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057181**

Wellid:	81000003771	Import id:	81727512006
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	ROMILOS, SARRI		
Well addr:	2730 DALEVIEW DR.		
Well depth:	76		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1979-05-11 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	76		
Screen frm:	72		
Screen to:	76		
Swl:	40		
Test depth:	41		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3176467129		
Longitude:	-83.7850621205		
Methd coll:	Interpolation-Map		
Elevation:	830		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	6
Elev miv:	830	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	76		
Pct aq d:	76	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	21

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	21	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	3
Pct na d:	3	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	19	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	36	A pct aq2:	72
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	28	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	60
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	0	Pct na 1:	10
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	36		
Horiz Conduct:	72.22225		
Vert Conduct:	.00036		
T2:	2600.001		
D50plek:	154.96074		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AL124**  
**NE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057709**

Wellid:	8100003817	Import id:	81727512052
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	GOLDENBURG, ROBERT		
Well addr:	3474 DALEVIEW DR.		
Well depth:	130		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1986-10-28 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	130		
Screen frm:	126		
Screen to:	130		
Swl:	70		
Test depth:	85		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3212440453		
Longitude:	-83.787385905		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	869	Elev dif:	21
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	24		
Pct aq d:	24	Pct aq r:	0
Pct maq:	8	Pct maq d:	8
Pct maq r:	0	Pct cm:	22
Pct cm d:	22	Pct cm r:	0
Pct pcm:	46	Pct pcm d:	46
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	60	A pct aq2:	47
A pct maq2:	0	A pct pcm2:	17
A pct cm2:	37	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	50	Pct cm 3:	0
Pct pcm 3:	50	Pct na 3:	0
Pct aq 4:	65	Pct maq 4:	0
Pct cm 4:	35	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	40
Pct maq 5:	0	Pct cm 5:	60
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	20	Pct maq 6:	0
Pct cm 6:	40	Pct pcm 6:	40
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	60		
Horiz Conduct:	140.0017		
Vert Conduct:	.00027		
T2:	8400.1022		
D50plek:	787.5667		

**125  
WNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057398**

Wellid:	81000003742	Import id:	81727511002
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	WORTMAN, PAUL		
Well addr:	2888 E. DELHI RD.		
Well depth:	116		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	551
Const date:	1984-10-11 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	110		
Screen frm:	110		
Screen to:	116		
Swl:	65		
Test depth:	80		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3191822802		
Longitude:	-83.8081863196		
Methd coll:	Interpolation-Map		
Elevation:	912		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	0
Elev miv:	912	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	31		
Pct aq d:	31	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	49
Pct cm d:	49	Pct cm r:	0
Pct pcm:	20	Pct pcm d:	20
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	51	A pct aq2:	16
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	84	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	70
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	70	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	30
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	15
Pct pcm 3:	85	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	51		
Horiz Conduct:	47.05891		
Vert Conduct:	.00012		
T2:	2400.0043		
D50plek:	203.46731		

**AI126  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI30000005596**

Wellid:	81000003921	Import id:	81727514020
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	SOWERS, RAY		
Well addr:	3601 DEERFIELD RD.		
Well depth:	112		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1973-02-02 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	112		
Screen frm:	108		
Screen to:	112		
Swl:	36		
Test depth:	37		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3072219996		
Longitude:	-83.8018572781		
Methd coll:	Interpolation-Map		
Elevation:	863		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	3
Elev miv:	863	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	23		
Pct aq d:	23	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	77

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	77	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	76	A pct aq2:	5
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	95	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	76		
Horiz Conduct:	5.26325		
Vert Conduct:	.00011		
T2:	400.0072		
D50plek:	55.60964		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AL127**  
**NE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057760**

Wellid:	81000003786	Import id:	81727512021
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	DEWHURST, LARRY		
Well addr:	3496 DALEVIEW DR.		
Well depth:	78		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-11-03 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	74		
Screen frm:	74		
Screen to:	78		
Swl:	59		
Test depth:	63		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3216374333		
Longitude:	-83.7876070963		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	1
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	10		
Pct aq d:	10	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	90
Pct cm d:	90	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	19	A pct aq2:	42
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	58	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	19		
Horiz Conduct:	126.31585		
Vert Conduct:	.00017		
T2:	2400.0011		
D50plek:	75.80145		

**AJ128  
NNE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058076**

Wellid:	81000003808	Import id:	81727512043
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	SARNS, R.		
Well addr:	3645 DALEVIEW DR.		
Well depth:	203		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1973-12-14 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	203		
Screen frm:	199		
Screen to:	203		
Swl:	104		
Test depth:	130		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3241930688		
Longitude:	-83.7924667168		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	905	Elev dif:	5
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	7		
Pct aq d:	7	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	93
Pct cm d:	93	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	99	A pct aq2:	5
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	95	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	90
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	9	Pct maq 8:	0
Pct cm 8:	91	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	99		
Horiz Conduct:	5.0506		
Vert Conduct:	.00011		
T2:	500.0094		
D50plek:	89.43028		

**AJ129  
NNE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058137**

Wellid:	81000003810	Import id:	81727512045
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	ROGERS, DON		
Well addr:	3685 DALEVIEW DR.		
Well depth:	73		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1973-08-29 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	73		
Screen frm:	69		
Screen to:	73		
Swl:	36		
Test depth:	59		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3246233746		
Longitude:	-83.7944107898		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	892	Elev dif:	8
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	18		
Pct aq d:	18	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	82

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	82	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	83
A pct maq:	0	A pct pcm:	0
A pct cm:	17	A pct na:	0
A thickns2:	37	A pct aq2:	27
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	73	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Clay
A sc lmod1:	Not Reported	A sc lmaq1:	CM
A sc lpct1:	50	A sc lith2:	Sand & Gravel
A sc lmod2:	Not Reported	A sc lmaq2:	AQ
A sc lpct2:	50	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	15	Pct maq 2:	0
Pct cm 2:	85	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	37		
Horiz Conduct:	27.0271		
Vert Conduct:	.00014		
T2:	1000.0027		
D50plek:	64.376		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AM130**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000057526**

Wellid:	81000003793	Import id:	81727512028
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	PORT, FRIEDICH		
Well addr:	3375 RIVERBEND DR.		
Well depth:	100		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1975-12-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	100		
Screen frm:	96		
Screen to:	100		
Swl:	73		
Test depth:	73		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3200492612		
Longitude:	-83.78593306		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	1
Elev miv:	865	Aq code:	Not Reported
Aq flag:	Lithology Problem (Drift under Rock)		
Pct aq:	0		
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-9
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	27	A pct aq:	19
A pct maq:	0	A pct pcm:	0
A pct cm:	11	A pct na:	70
A thickns2:	27	A pct aq2:	19
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	11	A pct na2:	70
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	60
Pct maq 1:	0	Pct cm 1:	40
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**AN131**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056972**

Wellid:	81000003741	Import id:	81727511001
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	JOHNSON, KEN		
Well addr:	2594 DELHI RD.		
Well depth:	119		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1983-11-09 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	119		
Screen frm:	115		
Screen to:	119		
Swl:	81		
Test depth:	81		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3164530009		
Longitude:	-83.8093665049		
Methd coll:	Interpolation-Map		
Elevation:	885		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	886	Elev dif:	1
Elev miv:	885	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	29		
Pct aq d:	29	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	67
Pct cm d:	67	Pct cm r:	0
Pct pcm:	4	Pct pcm d:	4
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	27	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	38	A pct aq2:	71
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	29	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Medium	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	75
Pct pcm 1:	25	Pct na 1:	0
Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	40
Pct maq 5:	0	Pct cm 5:	60
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	38		
Horiz Conduct:	213.15792		
Vert Conduct:	.00035		
T2:	8100.0011		
D50plek:	481.81159		

**AO132  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057935**

Wellid:	81000003804	Import id:	81727512039
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	KORNBLUM, SYLVAN		
Well addr:	3541 DALEVIEW DR.		
Well depth:	154		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1973-12-03 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	154		
Screen frm:	150		
Screen to:	154		
Swl:	116		
Test depth:	130		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3230926113		
Longitude:	-83.7893461604		
Methd coll:	Interpolation-Map		
Elevation:	925		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	918	Elev dif:	7
Elev miv:	925	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	87

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	87	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	38	A pct aq2:	32
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	68	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	90
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	32
Pct maq 7:	0	Pct cm 7:	68
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	38		
Horiz Conduct:	31.57902		
Vert Conduct:	.00015		
T2:	1200.0026		
D50plek:	78.57538		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AG133**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055706**

Wellid:	81000003917	Import id:	81727514016
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	HATCHARD, GERALD		
Well addr:	3730 MILLER RD.		
Well depth:	92		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1986-03-24 00:00:00.000	Case type:	PVC Plastic
Case dia:	0		
Case depth:	0		
Screen frm:	88		
Screen to:	92		
Swl:	10		
Test depth:	12		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3080779415		
Longitude:	-83.8043998557		
Methd coll:	Interpolation-Map		
Elevation:	848		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	2
Elev miv:	848	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	61		
Pct aq d:	61	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	39
Pct cm d:	39	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	82	A pct aq2:	56
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	44	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	95
Pct maq 1:	0	Pct cm 1:	5
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	60
Pct maq 3:	0	Pct cm 3:	40
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	30	Pct maq 4:	0
Pct cm 4:	70	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	82		
Horiz Conduct:	56.0976		
Vert Conduct:	.00023		
T2:	4600.0036		
D50plek:	606.91514		

**AG134  
SW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055751**

Wellid:	81000011282	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	Martin Bouma		
Well addr:	3750 Miller		
Well depth:	90		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1999-12-15 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	86		
Screen frm:	86		
Screen to:	90		
Swl:	16		
Test depth:	16		
Test hours:	2		
Test rate:	15	Test methd:	Air
Grouted:	1	Pmp cpcity:	12
Latitude:	42.30832982		
Longitude:	-83.8049643		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	843
Elev miv:	843	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	44		
Pct aq d:	44	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	40
Pct cm d:	40	Pct cm r:	0
Pct pcm:	16	Pct pcm d:	16
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	22	A pct aq:	82
A pct maq:	0	A pct pcm:	0
A pct cm:	18	A pct na:	0
A thickns2:	74	A pct aq2:	32
A pct maq2:	0	A pct pcm2:	19
A pct cm2:	49	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	70
Pct pcm 3:	30	Pct na 3:	0
Pct aq 4:	40	Pct maq 4:	0
Pct cm 4:	20	Pct pcm 4:	40
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	74		
Horiz Conduct:	97.29754		
Vert Conduct:	.0002		
T2:	7200.0176		
D50plek:	838.75268		

**AP135  
WNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057234**

Wellid:	81000011107	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	CHRISTIAN TENNANT CUSTOM HOME		
Well addr:	3939 HOLDEN		
Well depth:	136		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-11-01 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	131		
Screen frm:	131		
Screen to:	136		
Swl:	80		
Test depth:	86		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.31794086		
Longitude:	-83.8092018		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	909
Elev miv:	909	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	10		
Pct aq d:	10	Pct aq r:	0
Pct maq:	5	Pct maq d:	5
Pct maq r:	0	Pct cm:	67

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	67	Pct cm r:	0
Pct pcm:	18	Pct pcm d:	18
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	0
A pct maq:	100	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	56	A pct aq2:	25
A pct maq2:	13	A pct pcm2:	0
A pct cm2:	63	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	W/Clay	A sc lmaq1:	MAQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	80	Pct pcm 2:	20
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	45
Pct maq 5:	0	Pct cm 5:	55
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	20	Pct maq 6:	0
Pct cm 6:	80	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	56		
Horiz Conduct:	26.25006		
Vert Conduct:	.00016		
T2:	1470.0035		
D50plek:	140.34563		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AQ136**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056206**

Wellid:	81000003840	Import id:	81727513023
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	MC LAURIN, JASPER		
Well addr:	2693 LAURENTIDE DR.		
Well depth:	178		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-09-02 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	172		
Screen frm:	172		
Screen to:	178		
Swl:	112		
Test depth:	128		
Test hours:	3		
Test rate:	24	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.311117453		
Longitude:	-83.7856573138		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	882	Elev dif:	18
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	4		
Pct aq d:	4	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	77
Pct cm d:	77	Pct cm r:	0
Pct pcm:	19	Pct pcm d:	19
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	66	A pct aq2:	11
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	89	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	30	Pct pcm 2:	70
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	66		
Horiz Conduct:	10.60615		
Vert Conduct:	.00011		
T2:	700.0059		
D50plek:	81.94137		

**AH137  
SW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055896**

Wellid:	81000003916	Import id:	81727514015
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	GRAF, JAMES		
Well addr:	3820 MILLER RD.		
Well depth:	80		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1984-06-01 00:00:00.000	Case type:	Steel-black
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	80		
Screen frm:	76		
Screen to:	80		
Swl:	10		
Test depth:	33		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3092746319		
Longitude:	-83.8064082096		
Methd coll:	Interpolation-Map		
Elevation:	842		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	6
Elev miv:	842	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	73
Pct cm d:	73	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	70	A pct aq2:	17
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	83	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	20	Pct maq 4:	0
Pct cm 4:	80	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	70		
Horiz Conduct:	28.57151		
Vert Conduct:	.00012		
T2:	2000.0058		
D50plek:	234.90549		

**AR138  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056032**

Wellid:	81000003854	Import id:	81727513037
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	RICHARDSON, BRUCE		
Well addr:	2737 LAUREL HILL RD.		
Well depth:	97		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1976-07-22 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	93		
Screen frm:	93		
Screen to:	97		
Swl:	73		
Test depth:	78		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3099247998		
Longitude:	-83.786655762		
Methd coll:	Interpolation-Map		
Elevation:	925		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	928	Elev dif:	3
Elev miv:	925	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	74		
Pct aq d:	74	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	26

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	26	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	24	A pct aq2:	46
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	54	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	60
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	95	Pct maq 4:	0
Pct cm 4:	5	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	24		
Horiz Conduct:	45.83339		
Vert Conduct:	.00018		
T2:	1100.0013		
D50plek:	45.70089		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AS139**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055609**

Wellid:	81000003919	Import id:	81727514018
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	STERN, KEVIN		
Well addr:	3670 MILLER RD.		
Well depth:	108		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	361
Const date:	1973-09-20 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	108		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	36		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3073290305		
Longitude:	-83.803161317		
Methd coll:	Interpolation-Map		
Elevation:	856		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	3
Elev miv:	856	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	48		
Pct aq d:	48	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	52
Pct cm d:	52	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	75	Pct maq 4:	0
Pct cm 4:	25	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	25
Pct maq 5:	0	Pct cm 5:	75
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**AS140  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055651**

Wellid:	81000003918	Import id:	81727514017
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	STERN, AARON		
Well addr:	3700 MILLER RD.		
Well depth:	69		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1075
Const date:	1975-06-06 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	69		
Screen frm:	65		
Screen to:	69		
Swl:	26		
Test depth:	34		
Test hours:	2		
Test rate:	25	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3076022569		
Longitude:	-83.8038244152		
Methd coll:	Interpolation-Map		
Elevation:	854		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	4
Elev miv:	854	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	33		
Pct aq d:	33	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	67
Pct cm d:	67	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	43	A pct aq2:	12
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	88	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	43		
Horiz Conduct:	11.628		
Vert Conduct:	.00011		
T2:	500.0038		
D50plek:	38.84304		

**AT141  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055818**

Wellid:	81000003859	Import id:	81727513042
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	JOHNSON, CARL		
Well addr:	2800 LAUREL HILL DR.		
Well depth:	173		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1988-06-10 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	169		
Screen frm:	169		
Screen to:	173		
Swl:	134		
Test depth:	134		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3087906121		
Longitude:	-83.7879503321		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	925	Elev dif:	5
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	24		
Pct aq d:	24	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	12

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	12	Pct cm r:	0
Pct pcm:	64	Pct pcm d:	64
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	13	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	39	A pct aq2:	54
A pct maq2:	0	A pct pcm2:	46
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	20	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	80
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	80	Pct na 3:	0
Pct aq 4:	30	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	70
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	100
Pct na 6:	0	Pct aq 7:	60
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	40	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	39		
Horiz Conduct:	161.53892		
Vert Conduct:	.00217		
T2:	6300.018		
D50plek:	389.29699		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AS142**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI30000005579**

Wellid:	81000003920	Import id:	81727514019
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	BOYCHUCK, PETE		
Well addr:	3660 MILLER RD.		
Well depth:	115		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1978-05-19 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	115		
Screen frm:	111		
Screen to:	115		
Swl:	10		
Test depth:	40		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3071044682		
Longitude:	-83.8026891169		
Methd coll:	Interpolation-Map		
Elevation:	860		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	4
Elev miv:	860	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	33		
Pct aq d:	33	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	67
Pct cm d:	67	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	105	A pct aq2:	27
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	73	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	85
Pct maq 1:	0	Pct cm 1:	15
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	25	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	105		
Horiz Conduct:	26.66674		
Vert Conduct:	.00014		
T2:	2800.0077		
D50plek:	484.91402		

**AO143  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057991**

Wellid:	81000003805	Import id:	81727512040
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	JUVINALL, ROBERT		
Well addr:	3545 DALEVIEW DR. LOT #4.		
Well depth:	159		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1969-12-10 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	159		
Screen frm:	155		
Screen to:	159		
Swl:	125		
Test depth:	126		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3234887762		
Longitude:	-83.7896838239		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	922	Elev dif:	8
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	9		
Pct aq d:	9	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	19
Pct cm d:	19	Pct cm r:	0
Pct pcm:	72	Pct pcm d:	72
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	15	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	34	A pct aq2:	44
A pct maq2:	0	A pct pcm2:	56
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	100
Pct na 6:	0	Pct aq 7:	24
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	76	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	34		
Horiz Conduct:	44.11821		
Vert Conduct:	.00179		
T2:	1500.019		
D50plek:	86.85802		

**144  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055698**

Wellid:	81000003860	Import id:	81727513043
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	MARTIN, JOHN		
Well addr:	2572 WALNUT RD.		
Well depth:	167		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1760
Const date:	1986-12-01 00:00:00.000	Case type:	Steel-black
Case dia:	4		
Case depth:	159		
Screen frm:	159		
Screen to:	167		
Swl:	135		
Test depth:	145		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3079676217		
Longitude:	-83.7891598924		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	925	Elev dif:	5
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	78

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	78	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	25	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	32	A pct aq2:	78
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	22	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Fine	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	60
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	15	Pct maq 2:	0
Pct cm 2:	85	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	32
Pct maq 7:	0	Pct cm 7:	68
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	32		
Horiz Conduct:	39.06252		
Vert Conduct:	.00046		
T2:	1250.0007		
D50plek:	68.77744		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AO145**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000058028**

Wellid:	81000003806	Import id:	81727512041
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	BERENSON, GORDON		
Well addr:	3555 DALEVIEW DR.		
Well depth:	198		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-02-06 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	193		
Screen frm:	193		
Screen to:	198		
Swl:	109		
Test depth:	111		
Test hours:	3		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3238042264		
Longitude:	-83.7903059935		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	915	Elev dif:	15
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	5		
Pct aq d:	5	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	95
Pct cm d:	95	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	89	A pct aq2:	11
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	89	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Fine	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	89		
Horiz Conduct:	5.61807		
Vert Conduct:	.00011		
T2:	500.0079		
D50plek:	80.39669		

**AR146  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000055924**

Wellid:	81000003855	Import id:	81727513038
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HEINRICH, RAYMOND		
Well addr:	2715 LAUREL HILL RD.		
Well depth:	102		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1977-07-07 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	102		
Screen frm:	98		
Screen to:	102		
Swl:	65		
Test depth:	65		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3094424415		
Longitude:	-83.7870315169		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	928	Elev dif:	2
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	14		
Pct aq d:	14	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	86
Pct cm d:	86	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	37	A pct aq2:	16
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	84	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	15
Pct maq 1:	0	Pct cm 1:	85
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	25	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	20
Pct maq 5:	0	Pct cm 5:	80
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	37		
Horiz Conduct:	8.10819		
Vert Conduct:	.00012		
T2:	300.0031		
D50plek:	20.63742		

**AU147  
WSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056186**

Wellid:	81000003911	Import id:	81727514010
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	O'DAUGHERTY, DAN		
Well addr:	3940 E. DELHI RD.		
Well depth:	66		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	Not Reported	Case type:	Unknown
Case dia:	4		
Case depth:	66		
Screen frm:	62		
Screen to:	66		
Swl:	55		
Test depth:	55		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3109377114		
Longitude:	-83.8082352689		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	17
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	82		
Pct aq d:	82	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	18

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	18	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	11	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	11	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	60
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	11		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	1100		
D50plek:	20.94622		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AV148**  
**NNW**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI300000058185**

Wellid:	81000012460	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	5
Owner name:	DOUG/ DANIEL WILLIAMS		
Well addr:	4000 TUBBS RD		
Well depth:	79		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2215
Const date:	2002-07-18 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	70		
Screen frm:	69		
Screen to:	79		
Swl:	60		
Test depth:	82		
Test hours:	4		
Test rate:	12	Test methd:	Air
Grouted:	1	Pmp cpcity:	12
Latitude:	42.32495646		
Longitude:	-83.79997392		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	813	Elev dif:	813
Elev miv:	813	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	25		
Pct aq d:	25	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	75
Pct cm d:	75	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	19	A pct aq:	95
A pct maq:	0	A pct pcm:	0
A pct cm:	5	A pct na:	0
A thickns2:	19	A pct aq2:	95
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	5	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	90	Pct maq 4:	0
Pct cm 4:	5	Pct pcm 4:	5
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**AQ149  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056260**

Wellid:	81000003841	Import id:	81727513024
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	WATSON, DENNIS		
Well addr:	2715 LAURENTIDE DR.		
Well depth:	151		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	551
Const date:	1977-08-31 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	144		
Screen frm:	145		
Screen to:	151		
Swl:	50		
Test depth:	75		
Test hours:	4		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3114242277		
Longitude:	-83.7851712442		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	11
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	54		
Pct aq d:	54	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	20
Pct cm d:	20	Pct cm r:	0
Pct pcm:	26	Pct pcm d:	26
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	11	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	101	A pct aq2:	50
A pct maq2:	0	A pct pcm2:	20
A pct cm2:	30	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel & Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	50	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	50
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	40	Pct maq 6:	0
Pct cm 6:	60	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	40
Pct maq 7:	0	Pct cm 7:	60
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	101		
Horiz Conduct:	50.49706		
Vert Conduct:	.00033		
T2:	5100.203		
D50plek:	824.63261		

**150  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI30000005525**

Wellid:	81000003946	Import id:	81727514045
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	ZILL, ED		
Well addr:	3600 MILLER RD.		
Well depth:	38		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-02-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	34		
Screen frm:	34		
Screen to:	38		
Swl:	21		
Test depth:	22		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3066611186		
Longitude:	-83.8019008632		
Methd coll:	Interpolation-Map		
Elevation:	875		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	9
Elev miv:	875	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	17	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	17	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	17		
Horiz Conduct:	300		
Vert Conduct:	300		
T2:	5100		
D50plek:	138.7943		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AW151**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000058135**

Wellid:	81000003807	Import id:	81727512042
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	SMITH, CHAS		
Well addr:	3625 DALEVIEW DR.		
Well depth:	162		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1576
Const date:	1976-08-05 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	159		
Screen frm:	159		
Screen to:	162		
Swl:	100		
Test depth:	133		
Test hours:	2		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3246083506		
Longitude:	-83.7919066081		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	915	Elev dif:	5
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	6		
Pct aq d:	6	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	94
Pct cm d:	94	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	83
A pct maq:	0	A pct pcm:	0
A pct cm:	17	A pct na:	0
A thickns2:	62	A pct aq2:	8
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	92	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	62		
Horiz Conduct:	17.74203		
Vert Conduct:	.00011		
T2:	1100.0057		
D50plek:	118.06109		

**AV152  
NNW  
1/2 - 1 Mile  
Lower**

**MI WELLS MI300000058188**

Wellid:	81000010571	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	1
Owner name:	LEWIS KEITH YOHN		
Well addr:	3910 TUBBS ROAD		
Well depth:	110		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	2000-05-16 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	94		
Screen frm:	94		
Screen to:	99		
Swl:	70		
Test depth:	71		
Test hours:	2		
Test rate:	30	Test methd:	Air
Grouted:	1	Pmp cpcity:	12
Latitude:	42.32496701		
Longitude:	-83.80051229		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	830	Elev dif:	830
Elev miv:	830	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	27		
Pct aq d:	27	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	57
Pct cm d:	57	Pct cm r:	0
Pct pcm:	15	Pct pcm d:	15
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	18	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	29	A pct aq2:	62
A pct maq2:	0	A pct pcm2:	38
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	90
Pct pcm 1:	10	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	5
Pct maq 3:	0	Pct cm 3:	95
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	5	Pct maq 4:	0
Pct cm 4:	25	Pct pcm 4:	70
Pct na 4:	0	Pct aq 5:	90
Pct maq 5:	0	Pct cm 5:	5
Pct pcm 5:	5	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	29		
Horiz Conduct:	62.06934		
Vert Conduct:	.00264		
T2:	1800.011		
D50plek:	88.06342		

**AQ153  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056301**

Wellid:	81000003842	Import id:	81727513025
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SAGE, EDWIN C.		
Well addr:	2737 LAURENTIDE DR.		
Well depth:	65		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1599
Const date:	1977-10-28 00:00:00.000	Case type:	Unknown
Case dia:	0		
Case depth:	0		
Screen frm:	61		
Screen to:	66		
Swl:	18		
Test depth:	18		
Test hours:	2		
Test rate:	30	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.311705582		
Longitude:	-83.7848480611		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	4
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	69		
Pct aq d:	69	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	31	Pct pcm d:	31
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	17	A pct aq:	59
A pct maq:	0	A pct pcm:	41
A pct cm:	0	A pct na:	0
A thickns2:	47	A pct aq2:	57
A pct maq2:	0	A pct pcm2:	43
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	75	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	25
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	75	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**154**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056620**

Wellid:	81000003906	Import id:	81727514005
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	KELLY, RAYMOND		
Well addr:	2350 E. DELHI RD.		
Well depth:	136		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1987-02-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	136		
Screen frm:	128		
Screen to:	136		
Swl:	82		
Test depth:	82		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3137996431		
Longitude:	-83.8098157705		
Methd coll:	Interpolation-Map		
Elevation:	905		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	902	Elev dif:	3
Elev miv:	905	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	10		
Pct aq d:	10	Pct aq r:	0
Pct maq:	4	Pct maq d:	4
Pct maq r:	0	Pct cm:	78
Pct cm d:	78	Pct cm r:	0
Pct pcm:	4	Pct pcm d:	4
Pct pcm r:	0	Pct na:	4
Pct na d:	4	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	18	A pct aq:	39
A pct maq:	33	A pct pcm:	28
A pct cm:	0	A pct na:	0
A thickns2:	54	A pct aq2:	13
A pct maq2:	11	A pct pcm2:	9
A pct cm2:	67	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	W/Clay	A sc lmaq1:	MAQ
A sc lpct1:	75	A sc lith2:	Gravel
A sc lmod2:	Not Reported	A sc lmaq2:	AQ
A sc lpct2:	25	Pct aq 1:	35
Pct maq 1:	0	Pct cm 1:	40
Pct pcm 1:	0	Pct na 1:	25

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	8	Pct maq 6:	0
Pct cm 6:	72	Pct pcm 6:	20
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	54		
Horiz Conduct:	42.22321		
Vert Conduct:	.00015		
T2:	2280.0536		
D50plek:	205.20445		

**AI155  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055482**

Wellid:	81000003947	Import id:	81727514046
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	MEDL, ROBERT		
Well addr:	2455 N. WAGNER RD.		
Well depth:	35		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-06-01 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	31		
Screen frm:	31		
Screen to:	35		
Swl:	11		
Test depth:	16		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3062054175		
Longitude:	-83.8005462105		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	882	Elev dif:	2
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	34		
Pct aq d:	34	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	66
Pct cm d:	66	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	24	A pct aq2:	50
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	50	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	24		
Horiz Conduct:	100.00005		
Vert Conduct:	.0002		
T2:	2400.0012		
D50plek:	95.7492		

**AX156  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057694**

Wellid:	81000003794	Import id:	81727512029
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	KOCH, RICHARD		
Well addr:	3405 RIVERBEND DR.		
Well depth:	111		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	551
Const date:	1974-11-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	106		
Screen frm:	107		
Screen to:	111		
Swl:	75		
Test depth:	90		
Test hours:	4		
Test rate:	7	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3211034836		
Longitude:	-83.7859774387		
Methd coll:	Interpolation-Map		
Elevation:	885		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	9
Elev miv:	885	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	82		
Pct aq d:	82	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	18	Pct pcm d:	18
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	36	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	36	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel & Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	36		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	3600		
D50plek:	211.0769		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AR157**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055860**

Wellid:	81000003856	Import id:	81727513039
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BARNS, WILLIAM		
Well addr:	2662 HICKORY RD.		
Well depth:	107		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1986-12-05 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	107		
Screen frm:	103		
Screen to:	107		
Swl:	79		
Test depth:	79		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3090279221		
Longitude:	-83.7871007595		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	932	Elev dif:	2
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	39		
Pct aq d:	39	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	61
Pct cm d:	61	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	28	A pct aq:	93
A pct maq:	0	A pct pcm:	0
A pct cm:	7	A pct na:	0
A thickns2:	28	A pct aq2:	93
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	7	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	80
Pct maq 3:	0	Pct cm 3:	20
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	95
Pct maq 5:	0	Pct cm 5:	5
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	28		
Horiz Conduct:	142.85715		
Vert Conduct:	.0014		
T2:	4000.0002		
D50plek:	181.45816		

**AP158  
WNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057165**

Wellid:	81000003751	Import id:	81727511011
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	PARRISH, DON		
Well addr:	3997 HOLDEN DR.		
Well depth:	133		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1985-01-07 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	133		
Screen frm:	129		
Screen to:	133		
Swl:	95		
Test depth:	95		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3175616847		
Longitude:	-83.8098452575		
Methd coll:	Interpolation-Map		
Elevation:	902		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	902	Elev dif:	0
Elev miv:	902	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	32		
Pct aq d:	32	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	68
Pct cm d:	68	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	38	A pct aq:	97
A pct maq:	0	A pct pcm:	0
A pct cm:	3	A pct na:	0
A thickns2:	38	A pct aq2:	97
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	3	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	20	Pct maq 4:	0
Pct cm 4:	80	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	20
Pct maq 5:	0	Pct cm 5:	80
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	100	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	38		
Horiz Conduct:	97.36842		
Vert Conduct:	.0038		
T2:	3700.0001		
D50plek:	228.67974		

**AM159  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057480**

Wellid:	81000003792	Import id:	81727512027
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	MILES, GRAHAM		
Well addr:	3347 RIVERBEND DR.		
Well depth:	83		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	388
Const date:	1978-12-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	78.5		
Screen frm:	78.5		
Screen to:	82.5		
Swl:	71		
Test depth:	75		
Test hours:	2		
Test rate:	8	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3197549592		
Longitude:	-83.7846895876		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	869	Elev dif:	1
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	82		
Pct aq d:	82	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	0
Pct pcm:	18	Pct pcm d:	18
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	12	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	75	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	12		
Horiz Conduct:	291.66667		
Vert Conduct:	276.92308		
T2:	3500		
D50plek:	68.50084		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AR160**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056013**

Wellid:	81000003839	Import id:	81727513022
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	STAGER, AUGUSTUS		
Well addr:	2649 LAURENTIDE DR.		
Well depth:	157		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1970-08-14 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	153		
Screen frm:	153		
Screen to:	157		
Swl:	118		
Test depth:	127		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3098447628		
Longitude:	-83.7858496152		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	915	Elev dif:	5
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	16		
Pct aq d:	16	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	84
Pct cm d:	84	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	39	A pct aq2:	10
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	90	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	39		
Horiz Conduct:	10.2565		
Vert Conduct:	.00011		
T2:	400.0035		
D50plek:	28.53628		

**AY161  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056445**

Wellid:	81000003847	Import id:	81727513030
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BLOUIN, LEONARD		
Well addr:	2600 PARKRIDGE RD.		
Well depth:	125		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-04-27 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	121		
Screen frm:	121		
Screen to:	125		
Swl:	65		
Test depth:	69		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3126681997		
Longitude:	-83.7839892881		
Methd coll:	Interpolation-Map		
Elevation:	851		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	8
Elev miv:	851	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	26	Pct maq d:	26
Pct maq r:	0	Pct cm:	61
Pct cm d:	61	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	16	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	60	A pct aq2:	27
A pct maq2:	12	A pct pcm2:	0
A pct cm2:	62	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	10	Pct cm 1:	90
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	70
Pct cm 2:	30	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	25	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	60
Pct cm 4:	40	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	64	Pct maq 6:	0
Pct cm 6:	36	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	60		
Horiz Conduct:	30.16673		
Vert Conduct:	.00016		
T2:	1810.0037		
D50plek:	183.15925		

**AN162**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057046**

Wellid:	81000013320	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	MICHAEL VESTERGAARD		
Well addr:	2595 DELHI		
Well depth:	130		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2002-10-16 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	120		
Screen frm:	120		
Screen to:	130		
Swl:	92		
Test depth:	96		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	18
Latitude:	42.31696486		
Longitude:	-83.81040354		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	889	Elev dif:	889
Elev miv:	889	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	12		
Pct aq d:	12	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	88

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	88	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	15	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	38	A pct aq2:	39
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	61	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	40	Pct maq 6:	0
Pct cm 6:	60	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	38		
Horiz Conduct:	39.47374		
Vert Conduct:	.00017		
T2:	1500.0023		
D50plek:	97.07558		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**AY163**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056379**

Wellid:	81000014112	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BEN VANDERPLUIJM		
Well addr:	2737 LAURENTIDE		
Well depth:	72		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2003-09-08 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	64		
Screen frm:	64		
Screen to:	72		
Swl:	40		
Test depth:	42		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.31218733		
Longitude:	-83.784053		
Methd coll:	Address Matching-House Number		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	9
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	57		
Pct aq d:	57	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	43
Pct cm d:	43	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	9	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	32	A pct aq2:	28
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	72	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	32		
Horiz Conduct:	28.12507		
Vert Conduct:	.00014		
T2:	900.0023		
D50plek:	50.3919		

**164  
East  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057159**

Wellid:	81000003770	Import id:	81727512005
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	KERANS, ELLEN		
Well addr:	2685 DALEVIEW DR.		
Well depth:	50		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-07-05 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	46		
Screen frm:	46		
Screen to:	50		
Swl:	25		
Test depth:	26		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3175395066		
Longitude:	-83.7834815201		
Methd coll:	Interpolation-Map		
Elevation:	830		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	830	Elev dif:	0
Elev miv:	830	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	25	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	25	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	25		
Horiz Conduct:	300		
Vert Conduct:	300		
T2:	7500		
D50plek:	294.58847		

**AU165  
WSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056244**

Wellid:	81000003909	Import id:	81727514008
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	NOODEN, L.		
Well addr:	2148 E. DELHI RD.		
Well depth:	116		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-06-26 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	112		
Screen frm:	112		
Screen to:	116		
Swl:	44		
Test depth:	44		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3113487571		
Longitude:	-83.8093168774		
Methd coll:	Interpolation-Map		
Elevation:	875		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	3
Elev miv:	875	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	52		
Pct aq d:	52	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	48

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	48	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	72	A pct aq2:	50
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	50	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	60	Pct maq 4:	0
Pct cm 4:	40	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	72		
Horiz Conduct:	72.22227		
Vert Conduct:	.0002		
T2:	5200.0036		
D50plek:	598.79095		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AT166**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055787**

Wellid:	8100003857	Import id:	81727513040
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BARKER, JOHN		
Well addr:	2620 HICKORY RD.		
Well depth:	200		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1986-02-05 00:00:00.000	Case type:	PVC Plastic
Case dia:	0		
Case depth:	0		
Screen frm:	192		
Screen to:	200		
Swl:	100		
Test depth:	103		
Test hours:	2		
Test rate:	22	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3086345821		
Longitude:	-83.7868897818		
Methd coll:	Interpolation-Map		
Elevation:	940		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	935	Elev dif:	5
Elev miv:	940	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	59
Pct cm d:	59	Pct cm r:	0
Pct pcm:	14	Pct pcm d:	14
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	100	A pct aq2:	28
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	72	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	85
Pct pcm 1:	15	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	30
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	70	Pct na 3:	0
Pct aq 4:	50	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	50
Pct na 4:	0	Pct aq 5:	20
Pct maq 5:	0	Pct cm 5:	80
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	80	Pct maq 6:	0
Pct cm 6:	20	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	16	Pct maq 8:	0
Pct cm 8:	84	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	100		
Horiz Conduct:	28.00007		
Vert Conduct:	.00014		
T2:	2800.0072		
D50plek:	461.82279		

**AZ167**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000055502**

Wellid:	81000003823	Import id:	81727513006
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	KRAUSSE, DIETER		
Well addr:	2903 CRAIG RD.		
Well depth:	208		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1981-03-27 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	200		
Screen frm:	200		
Screen to:	208		
Swl:	121		
Test depth:	127		
Test hours:	2		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3064590751		
Longitude:	-83.7907967997		
Methd coll:	Interpolation-Map		
Elevation:	926		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	17
Elev miv:	926	Aq code:	Drift Well
Aq flag:	Screen Condition (Screen Depth > 0 and Screen Depth <= Well Depth) AQ_CODE is set to "D"		
Pct aq:	26		
Pct aq d:	26	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	68
Pct cm d:	68	Pct cm r:	0
Pct pcm:	6	Pct pcm d:	2
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	200
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	0
A pct maq:	0	A pct pcm:	100
A pct cm:	0	A pct na:	0
A thickns2:	87	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	14
A pct cm2:	86	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Shale
A sc lmod1:	Gravely	A sc lmaq1:	PCM
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	75	Pct maq 4:	0
Pct cm 4:	25	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	88
Pct pcm 7:	12	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	98	Pct pcm 8:	2
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	87		
Horiz Conduct:	.00022		
Vert Conduct:	.00011		
T2:	.0195		
D50plek:	.007		

**AU168  
WSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056101**

Wellid:	81000003914	Import id:	81727514013
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	WEAVER, TERRY		
Well addr:	3930 MILLER RD.		
Well depth:	60		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1976-09-02 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	67		
Screen frm:	67		
Screen to:	71		
Swl:	15		
Test depth:	15		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.310371902		
Longitude:	-83.8087501978		
Methd coll:	Interpolation-Map		
Elevation:	854		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	1
Elev miv:	854	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	0		
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	100

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	56	A pct aq2:	9
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	91	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	56		
Horiz Conduct:	26.78581		
Vert Conduct:	.00011		
T2:	1500.0051		
D50plek:	143.05901		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**AX169**  
**NE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057744**

Wellid:	81000003796	Import id:	81727512031
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	PERIGO, DONALD		
Well addr:	3423 RIVERBEND DR.		
Well depth:	128		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1979-12-05 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	120		
Screen to:	128		
Swl:	85		
Test depth:	85		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3215295707		
Longitude:	-83.7856215111		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	889	Elev dif:	9
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	16	Pct maq d:	16
Pct maq r:	0	Pct cm:	56
Pct cm d:	56	Pct cm r:	0
Pct pcm:	5	Pct pcm d:	5
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	29	A pct aq:	28
A pct maq:	72	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	43	A pct aq2:	19
A pct maq2:	49	A pct pcm2:	0
A pct cm2:	33	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	25
Pct na 2:	0	Pct aq 3:	90
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	10	Pct na 3:	0
Pct aq 4:	10	Pct maq 4:	0
Pct cm 4:	90	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	5	Pct cm 5:	95
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	20	Pct maq 6:	80
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	43		
Horiz Conduct:	55.86282		
Vert Conduct:	.00031		
T2:	2402.1014		
D50plek:	171.69313		

**AZ170  
SSE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055518**

Wellid:	81000003824	Import id:	81727513007
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	ANDERSON, FRANK		
Well addr:	2871 CRAIG RD.		
Well depth:	134		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1985-01-04 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	134		
Screen frm:	130		
Screen to:	134		
Swl:	80		
Test depth:	80		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3066051718		
Longitude:	-83.790217922		
Methd coll:	Interpolation-Map		
Elevation:	927		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	915	Elev dif:	12
Elev miv:	927	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	16		
Pct aq d:	16	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	84
Pct cm d:	84	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	54	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	87	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	35
Pct maq 3:	0	Pct cm 3:	65
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	5	Pct maq 4:	0
Pct cm 4:	95	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	54		
Horiz Conduct:	6.48157		
Vert Conduct:	.00011		
T2:	350.0047		
D50plek:	34.83363		

**AR171  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055915**

Wellid:	81000003838	Import id:	81727513021
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	WINTER, JIM		
Well addr:	2627 LAURENTIDE DR.		
Well depth:	107		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1970-01-20 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	103		
Screen frm:	103		
Screen to:	107		
Swl:	81		
Test depth:	86		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3093794638		
Longitude:	-83.7858305861		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	925	Elev dif:	5
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	34		
Pct aq d:	34	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	66

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	66	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	26	A pct aq2:	19
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	81	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	20
Pct maq 1:	0	Pct cm 1:	80
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	10	Pct maq 4:	0
Pct cm 4:	90	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	26		
Horiz Conduct:	19.23085		
Vert Conduct:	.00012		
T2:	500.0021		
D50plek:	23.48642		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BA172**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057361**

Wellid:	81000003769	Import id:	81727512004
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	REED, TOM		
Well addr:	2611 DALEVIEW DR.		
Well depth:	70		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-12-07 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	66		
Screen to:	70		
Swl:	48		
Test depth:	53		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3189197653		
Longitude:	-83.7837032365		
Methd coll:	Interpolation-Map		
Elevation:	905		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	55
Elev miv:	905	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	22	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	22	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	22		
Horiz Conduct:	300		
Vert Conduct:	300		
T2:	6600		
D50plek:	229.54176		

**AZ173**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000055543**

Wellid:	81000003825	Import id:	81727513008
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HEFFERNAN, DAN		
Well addr:	2847 CRAIG RD.		
Well depth:	130		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1984-09-24 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	130		
Screen frm:	126		
Screen to:	130		
Swl:	100		
Test depth:	101		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3067507454		
Longitude:	-83.7896908		
Methd coll:	Interpolation-Map		
Elevation:	928		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	922	Elev dif:	6
Elev miv:	928	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	18		
Pct aq d:	18	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	82
Pct cm d:	82	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	20
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	80	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	40
Pct maq 3:	0	Pct cm 3:	60
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	4	Pct maq 6:	0
Pct cm 6:	96	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	30		
Horiz Conduct:	20.00008		
Vert Conduct:	.00012		
T2:	600.0024		
D50plek:	32.19475		

**BA174  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057439**

Wellid:	81000003789	Import id:	81727512024
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	STEERS, GORDON		
Well addr:	3329 RIVERBEND DR.		
Well depth:	168		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1977-11-11 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0		
Grouted:	1	Test methd:	Unknown
Latitude:	42.3194861991	Pmp cpcity:	0
Longitude:	-83.7839801856		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	853	Elev dif:	17
Elev miv:	870	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq:	4		
Pct aq d:	5	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	24

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	0	Pct cm r:	100
Pct pcm:	72	Pct pcm d:	95
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	128
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	35
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	65	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	100
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.001		
Vert Conduct:	.001		
T2:	.108		
D50plek:	.03955		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BA175**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057432**

Wellid:	81000003788	Import id:	81727512023
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	STEERS, GORDON		
Well addr:	3329 RIVERBEND DR.		
Well depth:	74		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1977-11-21 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	70		
Screen frm:	70		
Screen to:	74		
Swl:	58		
Test depth:	60		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3194354798		
Longitude:	-83.7839501275		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	17
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	73		
Pct aq d:	73	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	27
Pct cm d:	27	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	16	A pct aq2:	50
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	50	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	80
Pct maq 1:	0	Pct cm 1:	20
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	16		
Horiz Conduct:	150.00005		
Vert Conduct:	.0002		
T2:	2400.0008		
D50plek:	63.83279		

**AV176  
NNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058242**

Wellid:	81000003761	Import id:	81727511021
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	HEYDON, PETER		
Well addr:	3993 TUBBS RD.		
Well depth:	99		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1976-09-15 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	95		
Screen frm:	95		
Screen to:	99		
Swl:	76		
Test depth:	78		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.325468486		
Longitude:	-83.8011390692		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	47
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	4		
Pct aq d:	4	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	96
Pct cm d:	96	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	23	A pct aq2:	17
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	83	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	23		
Horiz Conduct:	17.39139		
Vert Conduct:	.00012		
T2:	400.0019		
D50plek:	16.82902		

**177  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058040**

Wellid:	8100003803	Import id:	81727512038
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	CONLIN, TERRY		
Well addr:	3540 DALEVIEW DR.		
Well depth:	185		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1983-09-21 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	185		
Screen frm:	177		
Screen to:	185		
Swl:	92.5		
Test depth:	93		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3239063397		
Longitude:	-83.7884756568		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	918	Elev dif:	12
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	11		
Pct aq d:	11	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	89

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	89	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	15	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	93	A pct aq2:	16
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	84	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	93		
Horiz Conduct:	16.12912		
Vert Conduct:	.00012		
T2:	1500.0078		
D50plek:	237.58054		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**178**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056427**

Wellid:	81000011459	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	MURRAY BUILDERS		
Well addr:	3975 RED HAWK		
Well depth:	121		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2001-02-14 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	111		
Screen frm:	111		
Screen to:	121		
Swl:	39		
Test depth:	44		
Test hours:	2		
Test rate:	12	Test methd:	Air
Grouted:	1	Pmp cpcity:	18
Latitude:	42.31253751		
Longitude:	-83.81029536		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	876
Elev miv:	876	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	55		
Pct aq d:	55	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	45
Pct cm d:	45	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	35	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	82	A pct aq2:	73
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	27	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	40	Pct maq 2:	0
Pct cm 2:	60	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	20	Pct maq 4:	0
Pct cm 4:	80	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	70
Pct maq 5:	0	Pct cm 5:	30
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	82		
Horiz Conduct:	73.17076		
Vert Conduct:	.00037		
T2:	6000.0022		
D50plek:	781.39347		

**AW179  
NNE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058198**

Wellid:	81000015085	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	JOHN BETTS		
Well addr:	3650 DALEVIEW DRIVE		
Well depth:	120		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2125
Const date:	2004-06-23 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	110		
Screen frm:	110		
Screen to:	120		
Swl:	53		
Test depth:	120		
Test hours:	1		
Test rate:	18	Test methd:	Air
Grouted:	1	Pmp cpcity:	0
Latitude:	42.325025		
Longitude:	-83.790827		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	935	Elev dif:	935
Elev miv:	935	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	17		
Pct aq d:	17	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	83	Pct pcm d:	83
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	67	A pct aq2:	30
A pct maq2:	0	A pct pcm2:	70
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	67		
Horiz Conduct:	29.85776		
Vert Conduct:	.01425		
T2:	2000.47		
D50plek:	224.88761		

**AZ180  
SSE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI30000005522**

Wellid:	8100003826	Import id:	81727513009
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HEFFERNAN, DAN		
Well addr:	2847 CRAIG RD.		
Well depth:	155		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1984-06-07 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	155		
Screen frm:	147		
Screen to:	155		
Swl:	120		
Test depth:	121		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3066170763		
Longitude:	-83.7896956594		
Methd coll:	Interpolation-Map		
Elevation:	928		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	922	Elev dif:	6
Elev miv:	928	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	25		
Pct aq d:	25	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	75

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	75	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	35	A pct aq2:	29
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	71	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	70
Pct maq 3:	0	Pct cm 3:	30
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	75	Pct maq 4:	0
Pct cm 4:	25	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	20
Pct maq 7:	0	Pct cm 7:	80
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	35		
Horiz Conduct:	28.5715		
Vert Conduct:	.00014		
T2:	1000.0025		
D50plek:	60.89621		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**181  
 SW  
 1/2 - 1 Mile  
 Higher**

**MI WELLS      MI300000055997**

Wellid:	81000003915	Import id:	81727514014
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	HARMAN, RICHARD		
Well addr:	3920 MILLER RD.		
Well depth:	53		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1980-10-31 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	48		
Screen frm:	48		
Screen to:	53		
Swl:	7		
Test depth:	7		
Test hours:	2		
Test rate:	24	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3097478959		
Longitude:	-83.8086436052		
Methd coll:	Interpolation-Map		
Elevation:	847		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	833	Elev dif:	14
Elev miv:	847	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	25		
Pct aq d:	25	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	75
Pct cm d:	75	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	9	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	46	A pct aq2:	20
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	80	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	20
Pct maq 1:	0	Pct cm 1:	80
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	46		
Horiz Conduct:	19.5653		
Vert Conduct:	.00012		
T2:	900.0037		
D50plek:	72.43846		

**182**  
**SSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000055393**

Wellid:	81000006015	Import id:	81737502401
County:	Washtenaw	Township:	Lodi
Town range:	03S 05E	Section:	2
Owner name:	ANN ARBOR BAPTIST CHURCH		
Well addr:	2150 S WAGNER		
Well depth:	244		
Well type:	Type II public		
Wssn:	2042281		
Well num:	001	Driller id:	524
Const date:	1994-11-08 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	236		
Screen frm:	236		
Screen to:	244		
Swl:	178		
Test depth:	180		
Test hours:	2		
Test rate:	30	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	30
Latitude:	42.30533623		
Longitude:	-83.7999845		
Methd coll:	Address Matching-House Number		
Elevation:	883		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	895	Elev dif:	12
Elev miv:	883	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	53		
Pct aq d:	53	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	47
Pct cm d:	47	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	66	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	66	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	60
Pct maq 3:	0	Pct cm 3:	40
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	20	Pct maq 4:	0
Pct cm 4:	80	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	100	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**AX183  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057706**

Wellid:	81000003795	Import id:	81727512030
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	RESSLER, NEIL		
Well addr:	3420 RIVERBEND DR.		
Well depth:	137		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	388
Const date:	1978-06-16 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	133		
Screen frm:	133		
Screen to:	137		
Swl:	115		
Test depth:	130		
Test hours:	4		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3212344794		
Longitude:	-83.7849076941		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	1
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	67		
Pct aq d:	67	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	33

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	33	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	22	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	22	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	75
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	50	Pct maq 4:	0
Pct cm 4:	50	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	100	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	22		
Horiz Conduct:	154.54545		
Vert Conduct:	137.5		
T2:	3400		
D50plek:	122.1737		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BB184**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056664**

Wellid:	81000011328	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	AMY STILLMAN		
Well addr:	2845 WHIPPOORWILL		
Well depth:	65		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2001-05-14 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	55		
Screen frm:	55		
Screen to:	65		
Swl:	28		
Test depth:	29		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.3140217		
Longitude:	-83.78267721		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	853
Elev miv:	853	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	52		
Pct aq d:	52	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	48
Pct cm d:	48	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	27	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	37	A pct aq2:	73
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	27	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	35
Pct maq 1:	0	Pct cm 1:	65
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	37		
Horiz Conduct:	143.24327		
Vert Conduct:	.00037		
T2:	5300.001		
D50plek:	313.33695		

**BC185**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055511**

Wellid:	81000003827	Import id:	81727513010
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BIXBY, CARL		
Well addr:	2809 CRAIG RD.		
Well depth:	197		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	7
Const date:	Not Reported	Case type:	Steel-black
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	195		
Screen frm:	193		
Screen to:	197		
Swl:	137		
Test depth:	160		
Test hours:	4		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3065667736		
Longitude:	-83.7890427055		
Methd coll:	Interpolation-Map		
Elevation:	928		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	922	Elev dif:	6
Elev miv:	928	Aq code:	Not Reported
Aq flag:	Lithology Problem (Drift under Rock)		
Pct aq:	0		
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-9
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	60	A pct aq2:	17
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	83	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	35
Pct pcm 3:	65	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	20	Pct pcm 4:	80
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	4	Pct maq 6:	0
Pct cm 6:	96	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	60		
Horiz Conduct:	11.6675		
Vert Conduct:	.0012		
T2:	700.05		
D50plek:	74.49659		

**AY186  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056326**

Wellid:	81000003843	Import id:	81727513026
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	TODD, ROBERT		
Well addr:	2806 LAURENTIDE DR.		
Well depth:	106		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-09-15 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	102		
Screen frm:	102		
Screen to:	106		
Swl:	67		
Test depth:	67		
Test hours:	2		
Test rate:	112	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3118594218		
Longitude:	-83.7833078292		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	869	Elev dif:	1
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	48		
Pct aq d:	48	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	49

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	49	Pct cm r:	0
Pct pcm:	3	Pct pcm d:	3
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	39	A pct aq2:	18
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	82	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	65
Pct pcm 3:	15	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	5
Pct maq 5:	0	Pct cm 5:	95
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	39		
Horiz Conduct:	17.9488		
Vert Conduct:	.00012		
T2:	700.0032		
D50plek:	48.41973		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BD187**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056253**

Wellid:	81000003908	Import id:	81727514007
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	ALEKSOFF, CARL		
Well addr:	2160 E. DELHI RD.		
Well depth:	118		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-03-02 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	114		
Screen frm:	114		
Screen to:	118		
Swl:	49		
Test depth:	49		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3113811105		
Longitude:	-83.8102325324		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	4
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	39		
Pct aq d:	39	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	61
Pct cm d:	61	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	69	A pct aq2:	9
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	91	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	69		
Horiz Conduct:	17.3914		
Vert Conduct:	.00011		
T2:	1200.0063		
D50plek:	142.67676		

**188**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000055872**

Wellid:	81000003837	Import id:	81727513020
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	DAMREN, BETTY		
Well addr:	2605 LAURENTIDE ST.		
Well depth:	164		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1967-03-07 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	164		
Screen frm:	160		
Screen to:	164		
Swl:	108		
Test depth:	110		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3091112902		
Longitude:	-83.7852922712		
Methd coll:	Interpolation-Map		
Elevation:	925		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	915	Elev dif:	10
Elev miv:	925	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	55		
Pct aq d:	55	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	18
Pct cm d:	18	Pct cm r:	0
Pct pcm:	23	Pct pcm d:	23
Pct pcm r:	0	Pct na:	5
Pct na d:	5	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	11	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	56	A pct aq2:	34
A pct maq2:	0	A pct pcm2:	66
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	60
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	40
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	90	Pct maq 4:	0
Pct cm 4:	10	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	36	Pct maq 6:	0
Pct cm 6:	28	Pct pcm 6:	36
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	100	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	56		
Horiz Conduct:	16.96495		
Vert Conduct:	.00151		
T2:	950.037		
D50plek:	92.81921		

**189  
NNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058243**

Wellid:	81000010730	Import id:	Not Reported
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	35
Owner name:	JAMES WONG		
Well addr:	3550 HURON RIVER		
Well depth:	53		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-07-05 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	49		
Screen frm:	49		
Screen to:	53		
Swl:	32		
Test depth:	53		
Test hours:	2		
Test rate:	7	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.32547704		
Longitude:	-83.80273894		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	823	Elev dif:	823
Elev miv:	823	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	32		
Pct aq d:	32	Pct aq r:	0
Pct maq:	42	Pct maq d:	42
Pct maq r:	0	Pct cm:	26

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	26	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	21	A pct aq:	81
A pct maq:	0	A pct pcm:	0
A pct cm:	19	A pct na:	0
A thickns2:	21	A pct aq2:	81
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	19	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	W/Sand	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	100	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	20	Pct maq 2:	10
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BD190**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056183**

Wellid:	81000003912	Import id:	81727514011
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	DEUPREE, RICH		
Well addr:	2080 E. DELHI RD.		
Well depth:	89		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1980-02-15 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	89		
Screen frm:	85		
Screen to:	89		
Swl:	40		
Test depth:	41		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3108879692		
Longitude:	-83.8100897066		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	8
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	72
Pct cm d:	72	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	49	A pct aq2:	14
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	86	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	49		
Horiz Conduct:	14.2858		
Vert Conduct:	.00012		
T2:	700.0042		
D50plek:	60.83512		

**BE191  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057721**

Wellid:	81000003799	Import id:	81727512034
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	VILNIUS, DON		
Well addr:	3448 RIVERBEND DR.		
Well depth:	178		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	Not Reported	Case type:	Unknown
Case dia:	0		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3213656385		
Longitude:	-83.7844008994		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	918	Elev dif:	2
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	7		
Pct aq d:	7	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	93
Pct cm d:	93	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	25	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	16	Pct maq 6:	0
Pct cm 6:	84	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**BE192  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057801**

Wellid:	81000003801	Import id:	81727512036
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	MOHRMANN, RICHARD		
Well addr:	3443 RIVERBEND DR.		
Well depth:	158		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-07-18 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	150		
Screen frm:	150		
Screen to:	158		
Swl:	90		
Test depth:	102		
Test hours:	4		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3219192944		
Longitude:	-83.7848674803		
Methd coll:	Interpolation-Map		
Elevation:	905		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	7
Elev miv:	905	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	7		
Pct aq d:	7	Pct aq r:	0
Pct maq:	1	Pct maq d:	1
Pct maq r:	0	Pct cm:	52

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	52	Pct cm r:	0
Pct pcm:	40	Pct pcm d:	40
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	11	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	68	A pct aq2:	16
A pct maq2:	3	A pct pcm2:	16
A pct cm2:	65	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	40	Pct pcm 4:	60
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	56	Pct pcm 6:	44
Pct na 6:	0	Pct aq 7:	12
Pct maq 7:	8	Pct cm 7:	80
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	68		
Horiz Conduct:	33.23552		
Vert Conduct:	.00015		
T2:	2260.0154		
D50plek:	256.25011		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**193**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000057145**

Wellid:	81000013119	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	BRADLEY CUSTOM HOMES		
Well addr:	4040 LITTLE DOWN		
Well depth:	149		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2003-04-10 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	139		
Screen frm:	139		
Screen to:	149		
Swl:	86		
Test depth:	86		
Test hours:	2		
Test rate:	7	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	18
Latitude:	42.31746126		
Longitude:	-83.81145493		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	892	Elev dif:	892
Elev miv:	892	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	26		
Pct aq d:	26	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	74
Pct cm d:	74	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	32	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	63	A pct aq2:	51
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	49	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	W/Sand	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	30
Pct maq 1:	0	Pct cm 1:	70
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	32	Pct maq 6:	0
Pct cm 6:	68	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	63		
Horiz Conduct:	152.381		
Vert Conduct:	.0002		
T2:	9600.0031		
D50plek:	939.06618		

**BF194  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056089**

Wellid:	81000003833	Import id:	81727513016
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	RAZZAG, MIKE		
Well addr:	2671 ROSELAND ST.		
Well depth:	103		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1968-09-11 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	103		
Screen frm:	99		
Screen to:	103		
Swl:	79		
Test depth:	79		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3102921951		
Longitude:	-83.7839611902		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	886	Elev dif:	6
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	30		
Pct aq d:	30	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	70	Pct pcm d:	70
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	24	A pct aq2:	38
A pct maq2:	0	A pct pcm2:	63
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	25	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	75
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	50	Pct na 3:	0
Pct aq 4:	40	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	60
Pct na 4:	0	Pct aq 5:	25
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	75	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	24		
Horiz Conduct:	37.50062		
Vert Conduct:	.0016		
T2:	900.015		
D50plek:	37.79443		

**BE195  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057733**

Wellid:	8100003798	Import id:	81727512033
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	VILNIUS, DON		
Well addr:	3448 RIVERBEND DR.		
Well depth:	193		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1978-10-26 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	193		
Screen frm:	185.5		
Screen to:	193		
Swl:	130		
Test depth:	150		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3214543341		
Longitude:	-83.7843908762		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	918	Elev dif:	2
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	18		
Pct aq d:	18	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	82

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	82	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	63	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	87	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	10
Pct maq 1:	0	Pct cm 1:	90
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	25	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	80	Pct maq 6:	0
Pct cm 6:	20	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	63		
Horiz Conduct:	12.6985		
Vert Conduct:	.00011		
T2:	800.0055		
D50plek:	88.74652		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**196**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000057600**

Wellid:	81000003790	Import id:	81727512025
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	WEBER, RAY		
Well addr:	3332 RIVERBEND DR.		
Well depth:	175		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1971-08-27 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	115		
Screen frm:	165		
Screen to:	175		
Swl:	109		
Test depth:	138		
Test hours:	4		
Test rate:	8	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3204276967		
Longitude:	-83.7836113996		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	895	Elev dif:	5
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	7		
Pct aq d:	7	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	93
Pct cm d:	93	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	66	A pct aq2:	18
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	82	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	66		
Horiz Conduct:	18.1819		
Vert Conduct:	.00012		
T2:	1200.0054		
D50plek:	136.47332		

**BE197**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000057745**

Wellid:	81000003797	Import id:	81727512032
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	VILNIUS, DON		
Well addr:	3448 RIVERBEND DR.		
Well depth:	242		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-10-09 00:00:00.000	Case type:	Unknown
Case dia:	0		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3215297024		
Longitude:	-83.7843883653		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	918	Elev dif:	2
Elev miv:	920	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq:	0		
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	100
Pct cm d:	100	Pct cm r:	100
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	192
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.0001		
Vert Conduct:	.0001		
T2:	.0172		
D50plek:	.0124		

**BE198  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057621**

Wellid:	81000003791	Import id:	81727512026
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	WEBEK, ROY		
Well addr:	3332 RIVERBEND DR.		
Well depth:	171		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1988-06-21 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	167		
Screen frm:	167		
Screen to:	171		
Swl:	101		
Test depth:	112		
Test hours:	2		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3205433472		
Longitude:	-83.7836029871		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	19
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Screen Condition (Screen Depth > 0 and Screen Depth <= Well Depth) AQ_CODE is set to "D"		
Pct aq:	35		
Pct aq d:	35	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	54

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	53	Pct cm r:	0
Pct pcm:	11	Pct pcm d:	11
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	170
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	86
A pct maq:	0	A pct pcm:	0
A pct cm:	14	A pct na:	0
A thickns2:	70	A pct aq2:	9
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	91	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	75	A sc lith2:	Shale
A sc lmod2:	Not Reported	A sc lmaq2:	CM
A sc lpct2:	25	Pct aq 1:	70
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	15	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	85
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	90
Pct pcm 3:	10	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	85
Pct maq 5:	0	Pct cm 5:	15
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	70		
Horiz Conduct:	25.71438		
Vert Conduct:	.00011		
T2:	1800.0064		
D50plek:	212.56637		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**199**  
**North**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000058344**

Wellid:	81000011267	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	GARDELLA HOMES		
Well addr:	3250 OAK HOLLOW		
Well depth:	172		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1924
Const date:	2001-01-29 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	162		
Screen frm:	164		
Screen to:	172		
Swl:	80		
Test depth:	80		
Test hours:	2		
Test rate:	30	Test methd:	Air
Grouted:	1	Pmp cpcity:	18
Latitude:	42.32663157		
Longitude:	-83.79831907		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	863
Elev miv:	863	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	65		
Pct aq d:	65	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	2
Pct cm d:	2	Pct cm r:	0
Pct pcm:	34	Pct pcm d:	34
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	16	A pct aq:	81
A pct maq:	0	A pct pcm:	0
A pct cm:	19	A pct na:	0
A thickns2:	92	A pct aq2:	34
A pct maq2:	0	A pct pcm2:	63
A pct cm2:	3	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	90
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	10	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	100
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	100	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	92		
Horiz Conduct:	23.91935		
Vert Conduct:	.00257		
T2:	2200.5803		
D50plek:	338.03407		

**BE200**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057741**

Wellid:	81000003800	Import id:	81727512035
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	VILNIUS, DON		
Well addr:	3448 RIVERBEND DR.		
Well depth:	199		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-10-19 00:00:00.000	Case type:	Unknown
Case dia:	0		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3215162808		
Longitude:	-83.7842516726		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	918	Elev dif:	2
Elev miv:	920	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq:	7		
Pct aq d:	7	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	65
Pct cm d:	63	Pct cm r:	100
Pct pcm:	27	Pct pcm d:	28
Pct pcm r:	0	Pct na:	2
Pct na d:	2	Pct na r:	0
Pct flag:	Not Reported	Rock top:	188
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	85
Pct pcm 1:	0	Pct na 1:	15
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	25
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	40
Pct maq 5:	0	Pct cm 5:	60
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	8	Pct maq 6:	0
Pct cm 6:	92	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	12
Pct maq 7:	0	Pct cm 7:	48
Pct pcm 7:	40	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	11.31017		
Vert Conduct:	.00016		
T2:	1900.1082		
D50plek:	537.02799		

**BB201**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056603**

Wellid:	81000003846	Import id:	81727513029
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SANDSTROM, VAN		
Well addr:	2846 WHIPPERWILL LANE		
Well depth:	130		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-01-16 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	126		
Screen frm:	126		
Screen to:	130		
Swl:	64		
Test depth:	79		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3136596489		
Longitude:	-83.7821126024		
Methd coll:	Interpolation-Map		
Elevation:	858		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	1
Elev miv:	858	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	55		
Pct aq d:	55	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	35

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	35	Pct cm r:	0
Pct pcm:	9	Pct pcm d:	9
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	23	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	66	A pct aq2:	47
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	53	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	60	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	0	Pct cm 3:	50
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	55	Pct maq 4:	0
Pct cm 4:	45	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	72	Pct maq 6:	0
Pct cm 6:	28	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	66		
Horiz Conduct:	71.21217		
Vert Conduct:	.00019		
T2:	4700.0035		
D50plek:	498.58349		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**202**  
**WNW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057695**

Wellid:	81000003743	Import id:	81727511003
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	KALLET, HENRY		
Well addr:	2930 E. DELHI RD.		
Well depth:	143		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1977-11-23 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	139		
Screen frm:	139		
Screen to:	143		
Swl:	91		
Test depth:	109		
Test hours:	2		
Test rate:	18	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3211468029		
Longitude:	-83.8099316935		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	882	Elev dif:	28
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	87
Pct cm d:	87	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	52	A pct aq2:	12
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	88	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	52		
Horiz Conduct:	11.53855		
Vert Conduct:	.00011		
T2:	600.0046		
D50plek:	55.80443		

**BC203  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055524**

Wellid:	81000003828	Import id:	81727513011
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	DUNNING, ALLEN		
Well addr:	2725 CRAIG RD.		
Well depth:	171		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1979-03-22 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	171		
Screen frm:	163		
Screen to:	171		
Swl:	150		
Test depth:	152		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3066597406		
Longitude:	-83.7878654197		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	18
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	18		
Pct aq d:	18	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	82
Pct cm d:	82	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	13	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	21	A pct aq2:	62
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	38	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	75	Pct maq 2:	0
Pct cm 2:	25	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	15	Pct maq 4:	0
Pct cm 4:	85	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	21		
Horiz Conduct:	61.9048		
Vert Conduct:	.00026		
T2:	1300.0008		
D50plek:	46.84382		

**204  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055611**

Wellid:	81000003858	Import id:	81727513041
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SIEKMERIER, DON		
Well addr:	2680 CRAIG RD.		
Well depth:	121		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	Not Reported	Case type:	PVC Plastic
Case dia:	0		
Case depth:	0		
Screen frm:	117		
Screen to:	121		
Swl:	85		
Test depth:	87		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3073617307		
Longitude:	-83.7866901967		
Methd coll:	Interpolation-Map		
Elevation:	932		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	932	Elev dif:	0
Elev miv:	932	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	42		
Pct aq d:	42	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	36

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	36	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	10	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	30
Pct maq 1:	0	Pct cm 1:	70
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	25	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BF205**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056039**

Wellid:	81000012067	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	Norman Kemp		
Well addr:	2576 Roseland		
Well depth:	90		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2001-08-17 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	80		
Screen frm:	80		
Screen to:	90		
Swl:	55		
Test depth:	55		
Test hours:	2		
Test rate:	7	Test methd:	Air
Grouted:	1	Pmp cpcity:	12
Latitude:	42.30996313		
Longitude:	-83.7838437		
Methd coll:	Address Matching-House Number		
Elevation:	860		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	889	Elev dif:	29
Elev miv:	860	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	32		
Pct aq d:	32	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	68
Pct cm d:	68	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	14	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	35	A pct aq2:	40
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	60	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Fine	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	75	Pct maq 2:	0
Pct cm 2:	25	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	20	Pct maq 4:	0
Pct cm 4:	80	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	35		
Horiz Conduct:	20.00006		
Vert Conduct:	.00017		
T2:	700.0021		
D50plek:	43.45353		

**BG206**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056505**

Wellid:	81000003845	Import id:	81727513028
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	DAMES, JOHN		
Well addr:	2844 WHIPPERWILL LN.		
Well depth:	61		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1986-11-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	61		
Screen frm:	54		
Screen to:	58		
Swl:	29		
Test depth:	32		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3130136107		
Longitude:	-83.7820628449		
Methd coll:	Interpolation-Map		
Elevation:	869		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	3
Elev miv:	869	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	49		
Pct aq d:	49	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	51
Pct cm d:	51	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	24	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	29	A pct aq2:	83
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	17	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	75
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	95
Pct maq 3:	0	Pct cm 3:	5
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	29		
Horiz Conduct:	144.8276		
Vert Conduct:	.00058		
T2:	4200.0005		
D50plek:	196.859		

**207  
WSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056097**

Wellid:	81000003913	Import id:	81727514012
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	RAEDER, PAUL		
Well addr:	2040 E. DELHI RD.		
Well depth:	89		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1977-08-21 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	89		
Screen frm:	85		
Screen to:	89		
Swl:	45		
Test depth:	45		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.310329571		
Longitude:	-83.8104104682		
Methd coll:	Interpolation-Map		
Elevation:	878		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	15
Elev miv:	878	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	46		
Pct aq d:	46	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	54

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	54	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	9	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	44	A pct aq2:	20
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	80	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	44		
Horiz Conduct:	20.45462		
Vert Conduct:	.00013		
T2:	900.0035		
D50plek:	69.28894		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**208**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055814**

Wellid:	81000003905	Import id:	81727514004
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	KRAMPIEN, ALBERT		
Well addr:	3999 MILLER RD.		
Well depth:	73		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1986-05-22 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	73		
Screen frm:	69		
Screen to:	73		
Swl:	1		
Test depth:	1		
Test hours:	2		
Test rate:	100	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.30877752		
Longitude:	-83.8090925985		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	840	Elev dif:	10
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	21		
Pct aq d:	21	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	74
Pct cm d:	74	Pct cm r:	0
Pct pcm:	5	Pct pcm d:	5
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	72	A pct aq2:	21
A pct maq2:	0	A pct pcm2:	4
A pct cm2:	75	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	15
Pct maq 1:	0	Pct cm 1:	65
Pct pcm 1:	20	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	72		
Horiz Conduct:	62.50012		
Vert Conduct:	.00013		
T2:	4500.0084		
D50plek:	521.88227		

**209  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057390**

Wellid:	81000003787	Import id:	81727512022
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	EVERETT, MRS. RUTH		
Well addr:	3351 N. MAPLE RD.		
Well depth:	80		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	19
Const date:	1966-10-11 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	76		
Screen frm:	76		
Screen to:	80		
Swl:	54		
Test depth:	0		
Test hours:	3		
Test rate:	40	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3191488416		
Longitude:	-83.7823340913		
Methd coll:	Interpolation-Map		
Elevation:	860		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	7
Elev miv:	860	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	29
Pct cm d:	29	Pct cm r:	0
Pct pcm:	29	Pct pcm d:	29
Pct pcm r:	0	Pct na:	15
Pct na d:	15	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	26	A pct aq:	85
A pct maq:	0	A pct pcm:	15
A pct cm:	0	A pct na:	0
A thickns2:	26	A pct aq2:	85
A pct maq2:	0	A pct pcm2:	15
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	40	Pct na 1:	60
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	60	Pct pcm 2:	40
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	55
Pct pcm 3:	35	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	26		
Horiz Conduct:	153.84631		
Vert Conduct:	.0065		
T2:	4000.004		
D50plek:	168.49701		

**BF210  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056110**

Wellid:	8100003832	Import id:	81727513015
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HUDSON, JERRY		
Well addr:	2672 ROSELAND ST.		
Well depth:	82		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	Not Reported	Case type:	Unknown
Case dia:	4		
Case depth:	76		
Screen frm:	76		
Screen to:	80		
Swl:	58		
Test depth:	63		
Test hours:	3		
Test rate:	6	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3104007048		
Longitude:	-83.7831589274		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	899	Elev dif:	1
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	61		
Pct aq d:	61	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	24

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	24	Pct cm r:	0
Pct pcm:	15	Pct pcm d:	15
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	16	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	22	A pct aq2:	73
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	27	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Fine	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	60	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	30
Pct maq 3:	0	Pct cm 3:	70
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	80	Pct maq 4:	0
Pct cm 4:	20	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	22		
Horiz Conduct:	36.36366		
Vert Conduct:	.00037		
T2:	800.0006		
D50plek:	30.99067		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**BG211**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056385**

Wellid:	81000003844	Import id:	81727513027
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SORENSEN, WM.		
Well addr:	2850 LAURENTIDE DR.		
Well depth:	64		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	388
Const date:	1974-05-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	60		
Screen frm:	60		
Screen to:	64		
Swl:	30		
Test depth:	57		
Test hours:	4		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3122171894		
Longitude:	-83.782056931		
Methd coll:	Interpolation-Map		
Elevation:	878		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	2
Elev miv:	878	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	59		
Pct aq d:	59	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	14
Pct cm d:	14	Pct cm r:	0
Pct pcm:	27	Pct pcm d:	27
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	14	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	34	A pct aq2:	41
A pct maq2:	0	A pct pcm2:	32
A pct cm2:	26	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Fine	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	20	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	80
Pct na 2:	0	Pct aq 3:	50
Pct maq 3:	0	Pct cm 3:	45
Pct pcm 3:	5	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	34		
Horiz Conduct:	20.5915		
Vert Conduct:	.00037		
T2:	700.1109		
D50plek:	42.21821		

**BG212**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056490**

Wellid:	81000013041	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	AL STOREY		
Well addr:	2787 MAPLE		
Well depth:	84		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2003-02-26 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	74		
Screen frm:	74		
Screen to:	84		
Swl:	52		
Test depth:	57		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.31293686		
Longitude:	-83.78172859		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	872
Elev miv:	872	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	50		
Pct aq d:	50	Pct aq r:	0
Pct maq:	12	Pct maq d:	12
Pct maq r:	0	Pct cm:	38
Pct cm d:	38	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	22	A pct aq:	55
A pct maq:	45	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	32	A pct aq2:	38
A pct maq2:	31	A pct pcm2:	0
A pct cm2:	31	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	W/Clay	A sc lmaq1:	MAQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	65
Pct maq 1:	0	Pct cm 1:	35
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	65	Pct maq 2:	0
Pct cm 2:	35	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	60	Pct maq 4:	30
Pct cm 4:	10	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	32		
Horiz Conduct:	115.62503		
Vert Conduct:	.00032		
T2:	3700.001		
D50plek:	192.57245		

**BG213  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056426**

Wellid:	81000015292	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	WILLIAM SORENSEN		
Well addr:	2850 LAURENTIDE		
Well depth:	67		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2004-09-08 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	57		
Screen frm:	57		
Screen to:	67		
Swl:	37		
Test depth:	39		
Test hours:	2		
Test rate:	12	Test methd:	Air
Grouted:	1	Pmp cpcity:	0
Latitude:	42.31253		
Longitude:	-83.78181		
Methd coll:	GPS Code Meas. Std. Positioning Svc. SA Off		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	9
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	51		
Pct aq d:	51	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	31

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	31	Pct cm r:	0
Pct pcm:	18	Pct pcm d:	18
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	15	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	50
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	50	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	50	A sc lith2:	Gravel & Sand
A sc lmod2:	Not Reported	A sc lmaq2:	AQ
A sc lpct2:	50	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	60	Pct na 1:	0
Pct aq 2:	55	Pct maq 2:	0
Pct cm 2:	45	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	40
Pct maq 3:	0	Pct cm 3:	60
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	30		
Horiz Conduct:	50.00005		
Vert Conduct:	.0002		
T2:	1500.0015		
D50plek:	76.63858		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BG214**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056622**

Wellid:	81000004913	Import id:	81727618016
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	ROGERS, CARLYSLE O.		
Well addr:	2846 N. MAPLE RD.		
Well depth:	57		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	19
Const date:	1970-06-15 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	54		
Screen frm:	54		
Screen to:	57		
Swl:	27		
Test depth:	30		
Test hours:	.5		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3138075069		
Longitude:	-83.7812674284		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	14
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	72		
Pct aq d:	72	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	25
Pct cm d:	25	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	4
Pct na d:	4	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	30	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Medium	A sc lmaq1:	AQ
A sc lpct1:	67	A sc lith2:	Sand
A sc lmod2:	Fine	A sc lmaq2:	AQ
A sc lpct2:	33	Pct aq 1:	20
Pct maq 1:	0	Pct cm 1:	70
Pct pcm 1:	0	Pct na 1:	10

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	30		
Horiz Conduct:	225		
Vert Conduct:	120		
T2:	6750		
D50plek:	319.77732		

**BH215**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056693**

Wellid:	81000004914	Import id:	81727618017
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	JAMESON, THOMAS		
Well addr:	2876 N. MAPLE RD.		
Well depth:	110		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1075
Const date:	1977-06-30 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	110		
Screen frm:	106		
Screen to:	110		
Swl:	55		
Test depth:	62		
Test hours:	2		
Test rate:	25	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3142380358		
Longitude:	-83.7811730446		
Methd coll:	Interpolation-Map		
Elevation:	855		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	5
Elev miv:	855	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	5		
Pct aq d:	5	Pct aq r:	0
Pct maq:	35	Pct maq d:	35
Pct maq r:	0	Pct cm:	5
Pct cm d:	5	Pct cm r:	0
Pct pcm:	55	Pct pcm d:	55
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	55	A pct aq2:	9
A pct maq2:	0	A pct pcm2:	91
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	70	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	5
Pct aq 2:	0	Pct maq 2:	100
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	25	Pct cm 3:	0
Pct pcm 3:	75	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	55		
Horiz Conduct:	9.09182		
Vert Conduct:	.0011		
T2:	500.05		
D50plek:	49.6873		

**BI216  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055848**

Wellid:	81000003836	Import id:	81727513019
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	WARNER, JOHN		
Well addr:	2600 ROSELAND ST.		
Well depth:	170		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-07-08 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	166		
Screen to:	170		
Swl:	120		
Test depth:	120		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3089953488		
Longitude:	-83.7837886726		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	2
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	42		
Pct aq d:	42	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	46

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	46	Pct cm r:	0
Pct pcm:	12	Pct pcm d:	12
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	50	A pct aq2:	14
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	86	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	70
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	80	Pct maq 2:	0
Pct cm 2:	20	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	10	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	90
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	85
Pct pcm 5:	15	Pct na 5:	0
Pct aq 6:	48	Pct maq 6:	0
Pct cm 6:	52	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	50		
Horiz Conduct:	14.00009		
Vert Conduct:	.00012		
T2:	700.0043		
D50plek:	62.07666		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**217**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055237**

Wellid:	81000010345	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	35
Owner name:	John Frederick		
Well addr:	1700 Wagner		
Well depth:	225		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-03-31 13:38:28.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	220		
Screen frm:	220		
Screen to:	225		
Swl:	160		
Test depth:	162		
Test hours:	2		
Test rate:	12	Test methd:	Air
Grouted:	1	Pmp cpcity:	10
Latitude:	42.30405103		
Longitude:	-83.799948		
Methd coll:	Address Matching-House Number		
Elevation:	886		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	14
Elev miv:	886	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	87		
Pct aq d:	87	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	13
Pct cm d:	13	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	65	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	65	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	100	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	100
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	100	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**218**  
**East**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS MI300000057213**

Wellid:	8100004783	Import id:	81727607008
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	CHALK, MILTON		
Well addr:	3265 N. MAPLE RD.		
Well depth:	64		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-11-06 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	57		
Screen to:	61		
Swl:	39		
Test depth:	41		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3177862146		
Longitude:	-83.7813089963		
Methd coll:	Interpolation-Map		
Elevation:	825		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	820	Elev dif:	5
Elev miv:	825	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	81		
Pct aq d:	81	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	19
Pct cm d:	19	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	9	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	22	A pct aq2:	59
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	41	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	55
Pct maq 3:	0	Pct cm 3:	45
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	22		
Horiz Conduct:	59.09095		
Vert Conduct:	.00024		
T2:	1300.0009		
D50plek:	49.07448		

**BF219  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056014**

Wellid:	81000003834	Import id:	81727513017
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	NEWMAN, CHAS		
Well addr:	2648 ROSELAND ST.		
Well depth:	144		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1972-10-21 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	144		
Screen frm:	140		
Screen to:	144		
Swl:	124		
Test depth:	124		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3098467605		
Longitude:	-83.7830528974		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	8
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	51		
Pct aq d:	51	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	49

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	49	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	20	A pct aq2:	60
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	40	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	48	Pct maq 6:	0
Pct cm 6:	52	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	20		
Horiz Conduct:	60.00004		
Vert Conduct:	.00025		
T2:	1200.0008		
D50plek:	41.3554		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BF220**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055931**

Wellid:	81000003835	Import id:	81727513018
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	LATTA, WILLIAM		
Well addr:	2624 ROSELAND ST.		
Well depth:	102		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1966-11-04 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	80		
Screen frm:	91.5		
Screen to:	102		
Swl:	60		
Test depth:	60		
Test hours:	1		
Test rate:	9	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3094609545		
Longitude:	-83.7832651678		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	2
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	38		
Pct aq d:	38	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	52
Pct cm d:	52	Pct cm r:	0
Pct pcm:	10	Pct pcm d:	10
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	42	A pct aq:	93
A pct maq:	0	A pct pcm:	0
A pct cm:	7	A pct na:	0
A thickns2:	42	A pct aq2:	93
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	7	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	50
Pct pcm 1:	50	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	85	Pct maq 4:	0
Pct cm 4:	15	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	42		
Horiz Conduct:	92.85715		
Vert Conduct:	.0014		
T2:	3900.0003		
D50plek:	265.71649		

**BG221**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000056572**

Wellid:	8100004927	Import id:	81727618030
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	SHEIPE, ROBERT		
Well addr:	2909 LAURENTIDE ST.		
Well depth:	57		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1986-04-12 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	57		
Screen frm:	53		
Screen to:	57		
Swl:	26		
Test depth:	26		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3134656287		
Longitude:	-83.781167854		
Methd coll:	Interpolation-Map		
Elevation:	872		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	13
Elev miv:	872	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	67		
Pct aq d:	67	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	33
Pct cm d:	33	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	17	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	31	A pct aq2:	55
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	45	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	31		
Horiz Conduct:	80.64521		
Vert Conduct:	.00022		
T2:	2500.0014		
D50plek:	128.56195		

**BJ222  
WNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057300**

Wellid:	81000011931	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	WILLIAM CHARLES CUSTOM HOMES		
Well addr:	4274 UPPER GLADE		
Well depth:	146		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2001-12-19 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	136		
Screen frm:	136		
Screen to:	146		
Swl:	94		
Test depth:	94		
Test hours:	2		
Test rate:	3	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.31844622		
Longitude:	-83.81246067		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	895	Elev dif:	895
Elev miv:	895	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	68		
Pct aq d:	68	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	32

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	32	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	28	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	52	A pct aq2:	54
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	46	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	75
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	35
Pct maq 5:	0	Pct cm 5:	65
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	28	Pct maq 6:	0
Pct cm 6:	72	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	52		
Horiz Conduct:	161.53851		
Vert Conduct:	.00022		
T2:	8400.0024		
D50plek:	682.55008		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**223**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055352**

Wellid:	81000015580	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BRADFORD HOMES		
Well addr:	2150 STONE VALLEY		
Well depth:	108		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2004-10-07 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	103		
Screen frm:	103		
Screen to:	108		
Swl:	55		
Test depth:	55		
Test hours:	2		
Test rate:	12	Test methd:	Air
Grouted:	1	Pmp cpcity:	0
Latitude:	42.30494		
Longitude:	-83.78942		
Methd coll:	GPS Code Meas. Std. Positioning Svc. SA Off		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	899	Elev dif:	899
Elev miv:	899	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	42		
Pct aq d:	42	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	58
Pct cm d:	58	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	53	A pct aq2:	11
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	89	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	75	Pct maq 2:	0
Pct cm 2:	25	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	53		
Horiz Conduct:	11.32084		
Vert Conduct:	.00011		
T2:	600.0047		
D50plek:	56.8776		

**224  
NE  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000057900**

Wellid:	81000003802	Import id:	81727512037
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	12
Owner name:	KLEINMAN, PETER		
Well addr:	3455 RIVERBEND DR.		
Well depth:	154		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	658
Const date:	1972-10-12 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	154		
Screen frm:	151		
Screen to:	154		
Swl:	103		
Test depth:	0		
Test hours:	4		
Test rate:	40	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3227374905		
Longitude:	-83.7837593207		
Methd coll:	Interpolation-Map		
Elevation:	925		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	922	Elev dif:	3
Elev miv:	925	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	8		
Pct aq d:	8	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	39
Pct cm d:	39	Pct cm r:	0
Pct pcm:	53	Pct pcm d:	53
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	51	A pct aq2:	10
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	90	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	40
Pct maq 5:	0	Pct cm 5:	55
Pct pcm 5:	5	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	4
Pct maq 7:	0	Pct cm 7:	96
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	51		
Horiz Conduct:	9.80401		
Vert Conduct:	.00011		
T2:	500.0046		
D50plek:	46.06973		

**BK225**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056857**

Wellid:	81000015422	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	ROGER AND LINDA WILLIAMS		
Well addr:	4220 LITTLEDOWN		
Well depth:	55		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2125
Const date:	2004-09-03 00:00:00.000	Case type:	Unknown
Case dia:	-1		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.31571867		
Longitude:	-83.81318155		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	SWL = 0		
Elev dem:	899	Elev dif:	899
Elev miv:	899	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	0		
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	100

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BK226**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056856**

Wellid:	81000015421	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	ROGER AND LINDA WILLIAMS		
Well addr:	4220 LITTLEDOWN		
Well depth:	185		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2125
Const date:	2004-09-02 00:00:00.000	Case type:	PVC Plastic
Case dia:	-1		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.31571867		
Longitude:	-83.81318155		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	SWL = 0		
Elev dem:	899	Elev dif:	899
Elev miv:	899	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	0		
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	94
Pct cm d:	94	Pct cm r:	0
Pct pcm:	6	Pct pcm d:	6
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	92	Pct pcm 6:	8
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	80
Pct pcm 7:	20	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**BK227**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000056855**

Wellid:	81000015420	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	ROGER AND LINDA WILLIAMS		
Well addr:	4220 LITTLEDOWN ROAD		
Well depth:	55		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2125
Const date:	2004-08-30 00:00:00.000	Case type:	Unknown
Case dia:	-1		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.31571867		
Longitude:	-83.81318155		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	SWL = 0		
Elev dem:	899	Elev dif:	899
Elev miv:	899	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	25		
Pct aq d:	25	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	75
Pct cm d:	75	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**BK228**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056860**

Wellid:	81000015425	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	ROGER AND LINDA WILLIAMS		
Well addr:	4220 LITTLEDOWN DRIVE		
Well depth:	230		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2125
Const date:	2004-09-05 00:00:00.000	Case type:	Unknown
Case dia:	-1		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.31571867		
Longitude:	-83.81318155		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	SWL = 0		
Elev dem:	899	Elev dif:	899
Elev miv:	899	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq:	17		
Pct aq d:	0	Pct aq r:	100
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	80

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	96	Pct cm r:	0
Pct pcm:	3	Pct pcm d:	4
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	190
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	92	Pct pcm 6:	8
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	80
Pct pcm 7:	20	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00014		
Vert Conduct:	.0001		
T2:	.0233		
D50plek:	.01598		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BK229**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056859**

Wellid:	81000015424	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	ROGER AND LINDA WILLIAMS		
Well addr:	4220 LITTLEDOWN DRIVE		
Well depth:	230		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2125
Const date:	2004-09-05 00:00:00.000	Case type:	Unknown
Case dia:	-1		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.31571867		
Longitude:	-83.81318155		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	SWL = 0		
Elev dem:	899	Elev dif:	899
Elev miv:	899	Aq code:	Rock Well
Aq flag:	Not Reported		
Pct aq:	17		
Pct aq d:	0	Pct aq r:	100
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	80
Pct cm d:	96	Pct cm r:	0
Pct pcm:	3	Pct pcm d:	4
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	190
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	92	Pct pcm 6:	8
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	80
Pct pcm 7:	20	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00014		
Vert Conduct:	.0001		
T2:	.0233		
D50plek:	.01598		

**BK230**  
**West**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI3000000056858**

Wellid:	81000015423	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	ROGER AND LINDA WILLIAMS		
Well addr:	4220 LITTLEDOWN		
Well depth:	170		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2125
Const date:	2004-09-03 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	157		
Screen frm:	157		
Screen to:	170		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.31571867		
Longitude:	-83.81318155		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	SWL = 0		
Elev dem:	899	Elev dif:	899
Elev miv:	899	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	7		
Pct aq d:	7	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	89
Pct cm d:	89	Pct cm r:	0
Pct pcm:	4	Pct pcm d:	4
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	170	A pct aq2:	7
A pct maq2:	0	A pct pcm2:	4
A pct cm2:	89	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	92	A sc lith2:	Clay
A sc lmod2:	Not Reported	A sc lmaq2:	CM
A sc lpct2:	8	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	88	Pct pcm 6:	12
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	88
Pct pcm 7:	12	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	170		
Horiz Conduct:	3.52954		
Vert Conduct:	.00011		
T2:	600.0212		
D50plek:	182.44232		

**231  
South  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055169**

Wellid:	81000012968	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	VINCENT PECORARO		
Well addr:	3462 MILLER		
Well depth:	180		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2003-01-03 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	170		
Screen frm:	170		
Screen to:	180		
Swl:	70		
Test depth:	70		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	10
Latitude:	42.30350537		
Longitude:	-83.79678781		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	905	Elev dif:	905
Elev miv:	905	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	11		
Pct aq d:	11	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	89

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	89	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	11	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	110	A pct aq2:	10
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	90	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	80	A sc lith2:	Gravel
A sc lmod2:	Not Reported	A sc lmaq2:	AQ
A sc lpct2:	20	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	60
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	110		
Horiz Conduct:	6.36373		
Vert Conduct:	.00011		
T2:	700.0099		
D50plek:	136.56969		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BL232**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056360**

Wellid:	8100004912	Import id:	81727618015
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	LANGLEY, DAVID F.		
Well addr:	2790 N. MAPLE RD.		
Well depth:	132		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1987-02-19 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	132		
Screen frm:	124		
Screen to:	132		
Swl:	82		
Test depth:	82		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3120655211		
Longitude:	-83.7811820738		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	11
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	36		
Pct aq d:	36	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	64
Pct cm d:	64	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	17	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	50	A pct aq2:	34
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	66	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	50
Pct maq 1:	0	Pct cm 1:	50
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	75	Pct maq 2:	0
Pct cm 2:	25	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	30	Pct maq 4:	0
Pct cm 4:	70	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	40	Pct maq 6:	0
Pct cm 6:	60	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	50		
Horiz Conduct:	68.00007		
Vert Conduct:	.00015		
T2:	3400.0033		
D50plek:	277.66775		

**BM233**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055602**

Wellid:	81000012180	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BRADFORD HOMES		
Well addr:	2725 CRAIG		
Well depth:	182		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2001-12-26 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	178		
Screen frm:	178		
Screen to:	182		
Swl:	120		
Test depth:	122		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.30726909		
Longitude:	-83.78489424		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	935	Elev dif:	935
Elev miv:	935	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	18		
Pct aq d:	18	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	82
Pct cm d:	82	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	62	A pct aq2:	32
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	68	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	65	Pct maq 2:	0
Pct cm 2:	35	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	62		
Horiz Conduct:	96.77426		
Vert Conduct:	.00015		
T2:	6000.0042		
D50plek:	590.80988		

**234  
NNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058459**

Wellid:	81000003762	Import id:	81727511022
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	KERN, DAVE		
Well addr:	3626 W. HURON RIVER DR.		
Well depth:	126		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-07-12 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	122		
Screen frm:	122		
Screen to:	126		
Swl:	103		
Test depth:	103		
Test hours:	3		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3274546343		
Longitude:	-83.8015252248		
Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	902	Elev dif:	8
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	19		
Pct aq d:	19	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	58

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	58	Pct cm r:	0
A pct pcm:	23	Pct pcm d:	23
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thickness:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	23	A pct aq2:	26
A pct maq2:	0	A pct pcm2:	74
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	85	Pct maq 2:	0
Pct cm 2:	15	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	5
Pct maq 3:	0	Pct cm 3:	95
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	55
Pct pcm 5:	45	Pct na 5:	0
Pct aq 6:	20	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	80
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	23		
Horiz Conduct:	78.26826		
Vert Conduct:	.01353		
T2:	1800.17		
D50plek:	69.84925		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**BN235**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056007**

Wellid:	81000003831	Import id:	81727513014
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	MC FADDIN, JAMES		
Well addr:	2675 N. MAPLE RD.		
Well depth:	92		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-06-30 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	84		
Screen frm:	84		
Screen to:	92		
Swl:	59		
Test depth:	71		
Test hours:	3		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3097986852		
Longitude:	-83.7821771574		
Methd coll:	Interpolation-Map		
Elevation:	900		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	12
Elev miv:	900	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	85		
Pct aq d:	85	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	15
Pct cm d:	15	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	33	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	33	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Fine	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	70
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	0	Pct na 1:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	33		
Horiz Conduct:	50		
Vert Conduct:	50		
T2:	1650		
D50plek:	92.27371		

**BO236**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056545**

Wellid:	81000004930	Import id:	81727618033
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	MITCHELL, R.T.		
Well addr:	2929 LAURENTIDE ST.		
Well depth:	46		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-02-22 00:00:00.000	Case type:	Unknown
Case dia:	4		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	42		
Screen frm:	42		
Screen to:	46		
Swl:	22		
Test depth:	23		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3133042244		
Longitude:	-83.7804418759		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	17
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	41		
Pct aq d:	41	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	24
Pct cm d:	24	Pct cm r:	0
Pct pcm:	35	Pct pcm d:	35
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	24	A pct aq2:	54
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	46	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	20
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	80	Pct na 1:	0
Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	24		
Horiz Conduct:	162.50005		
Vert Conduct:	.00022		
T2:	3900.0011		
D50plek:	151.83802		

**BI237**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS40000481761**

Org. Identifier:	USGS-MI		
Formal name:	USGS Michigan Water Science Center		
Monloc Identifier:	USGS-421830083470001		
Monloc name:	02S05E13ADCA01		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	04090005	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.3083707
Longitude:	-83.783275	Sourcemap scale:	Not Reported
Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	947
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Reported		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Sand and gravel aquifers (glaciated regions)		
Formation type:	Pleistocene Series		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	170
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

**BN238**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055907**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000003830	Import id:	81727513013
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HAMILTON, JOHN		
Well addr:	2631 N. MAPLE RD.		
Well depth:	96		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1988-08-05 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	90		
Screen frm:	90		
Screen to:	94		
Swl:	70		
Test depth:	76		
Test hours:	1		
Test rate:	8	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3093392668		
Longitude:	-83.7823124479		
Methd coll:	Interpolation-Map		
Elevation:	905		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	4
Elev miv:	905	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	48		
Pct aq d:	48	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	52
Pct cm d:	52	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	13	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	24	A pct aq2:	54
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	46	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	85
Pct maq 1:	0	Pct cm 1:	15
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	5	Pct maq 2:	0
Pct cm 2:	95	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	70
Pct maq 3:	0	Pct cm 3:	30
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	24		
Horiz Conduct:	54.16671		
Vert Conduct:	.00022		
T2:	1300.0011		
D50plek:	53.53581		

**BJ239**  
**WNW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000057287**

Wellid:	81000013107	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	WILLIAM CHARLES CUSTOM HOMES		
Well addr:	4274 UPPER GLADE		
Well depth:	146		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2002-05-03 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	136		
Screen frm:	136		
Screen to:	146		
Swl:	94		
Test depth:	104		
Test hours:	2		
Test rate:	7	Test methd:	Air
Grouted:	1	Pmp cpcity:	18
Latitude:	42.31834769		
Longitude:	-83.81334868		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	909
Elev niv:	909	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	58		
Pct aq d:	58	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	32
Pct cm d:	32	Pct cm r:	0
Pct pcm:	10	Pct pcm d:	10
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	28	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	52	A pct aq2:	54
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	46	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	75	Pct na 1:	0
Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	35
Pct maq 5:	0	Pct cm 5:	65
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	28	Pct maq 6:	0
Pct cm 6:	72	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	52		
Horiz Conduct:	161.53851		
Vert Conduct:	.00022		
T2:	8400.0024		
D50plek:	682.55008		

**BH240**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056621**

Wellid:	81000004932	Import id:	81727618035
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	MITCHELL, ROBERT		
Well addr:	2943 LAURENTIDE ST.		
Well depth:	40		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-02-22 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	36		
Screen to:	40		
Swl:	19		
Test depth:	21		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3138037517		
Longitude:	-83.780198067		
Methd coll:	Interpolation-Map		
Elevation:	860		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	4
Elev miv:	860	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	43		
Pct aq d:	43	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	23
Pct cm d:	23	Pct cm r:	0
Pct pcm:	35	Pct pcm d:	35
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	21	A pct aq2:	57

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	43	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	30
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	70	Pct na 1:	0
Pct aq 2:	55	Pct maq 2:	0
Pct cm 2:	45	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	21		
Horiz Conduct:	171.42861		
Vert Conduct:	.00023		
T2:	3600.0009		
D50plek:	123.12822		

BL241  
ESE  
1/2 - 1 Mile  
Higher

MI WELLS MI300000056455

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000004928	Import id:	81727618031
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	KOLSTER, J.		
Well addr:	2918 LAURENTIDE ST.		
Well depth:	54		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1969-11-27 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	50		
Screen frm:	50		
Screen to:	54		
Swl:	33		
Test depth:	35		
Test hours:	2		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3127051743		
Longitude:	-83.7804786011		
Methd coll:	Interpolation-Map		
Elevation:	875		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	9
Elev miv:	875	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	21	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	21	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	21		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	2100		
D50plek:	73.8099		

**BH242**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056737**

Wellid:	8100004908	Import id:	81727618011
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	Not Reported		
Well addr:	2981 NEWPORT RD.		
Well depth:	98		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1967-08-21 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	98		
Screen frm:	94		
Screen to:	98		
Swl:	48		
Test depth:	50		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3145747729		
Longitude:	-83.7800766297		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	847		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	4
Elev niv:	847	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	34		
Pct aq d:	34	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	65	Pct pcm d:	65
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported		
D r type:	Not Reported		
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	50	A pct aq2:	12
A pct maq2:	0	A pct pcm2:	88
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	95
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	5
Pct aq 2:	40	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	60
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	50		
Horiz Conduct:	36.00088		
Vert Conduct:	.00114		
T2:	1800.044		
D50plek:	151.83613		

**BM243**  
**SE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055539**

Wellid:	81000012265	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BRIAN ROBARDS CUSTOM HOMES		
Well addr:	2205 STONE VALLEY		
Well depth:	192		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2002-04-16 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	186		
Screen frm:	186		
Screen to:	192		
Swl:	98		
Test depth:	108		
Test hours:	2		
Test rate:	7	Test methd:	Air
GROUTED:	1	Pmp cpcity:	20
Latitude:	42.30671148		
Longitude:	-83.78478406		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	932	Elev dif:	932
Elev miv:	932	Aq code:	Drift Well
Aq flag:	Screen Condition (Screen Depth > 0 and Screen Depth <= Well Depth) AQ_CODE is set to "D"		
Pct aq:	4		
Pct aq d:	4	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	92
Pct cm d:	92	Pct cm r:	0
Pct pcm:	4	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	185
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	0
A pct maq:	0	A pct pcm:	100
A pct cm:	0	A pct na:	0
A thickns2:	94	A pct aq2:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	7
A pct cm2:	93	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Shale
A sc lmod1:	W/Gravel	A sc lmaq1:	PCM
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	40	Pct maq 2:	0
Pct cm 2:	60	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	94		
Horiz Conduct:	.00017		
Vert Conduct:	.00011		
T2:	.0157		
D50plek:	.00626		

244  
South  
1/2 - 1 Mile  
Higher

MI WELLS MI300000055101

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000003819	Import id:	81727513002
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	SALAHUDDIN, MOHAMMED		
Well addr:	1140 N. WAGNER RD.		
Well depth:	50		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1979-02-23 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	50		
Screen frm:	46		
Screen to:	50		
Swl:	15		
Test depth:	20		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3030100297		
Longitude:	-83.7992048263		
Methd coll:	Interpolation-Map		
Elevation:	885		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	882	Elev dif:	3
Elev miv:	885	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	40		
Pct aq d:	40	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	56
Pct cm d:	56	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	4
Pct na d:	4	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	35	A pct aq2:	34
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	66	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	40
Pct maq 1:	0	Pct cm 1:	50
Pct pcm 1:	0	Pct na 1:	10
Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	35		
Horiz Conduct:	17.14292		
Vert Conduct:	.00015		
T2:	600.0023		
D50plek:	37.56054		

**BP245  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000056171**

Wellid:	81000004910	Import id:	81727618013
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	KANISKI, WM.		
Well addr:	2712 N. MAPLE RD.		
Well depth:	84		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-08-11 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	80		
Screen frm:	80		
Screen to:	84		
Swl:	49		
Test depth:	54		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3107911693		
Longitude:	-83.7809752132		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	889	Elev dif:	1
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	35	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	35	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	35		
Horiz Conduct:	200		
Vert Conduct:	200		
T2:	7000		
D50plek:	386.21155		

**246  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI3000000055767**

Wellid:	81000014072	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	ANN FORNELL		
Well addr:	2562 BLUEBERRY		
Well depth:	105		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2003-10-18 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	90		
Screen frm:	90		
Screen to:	100		
Swl:	59		
Test depth:	64		
Test hours:	2		
Test rate:	9	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	18
Latitude:	42.30843959		
Longitude:	-83.78258404		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	912
Elev miv:	912	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	52		
Pct aq d:	52	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	48
Pct cm d:	48	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	34	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	41	A pct aq2:	83

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	17	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	60
Pct maq 1:	0	Pct cm 1:	40
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	45	Pct maq 2:	0
Pct cm 2:	55	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	70	Pct maq 4:	0
Pct cm 4:	30	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	41		
Horiz Conduct:	82.92685		
Vert Conduct:	.00059		
T2:	3400.0007		
D50plek:	227.68739		

**BO247**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000056654**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000004934	Import id:	81727618037
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	GREGORY, STEVE		
Well addr:	2951 LAURENTIDE ST.		
Well depth:	102		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1972-11-17 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	98		
Screen frm:	98		
Screen to:	102		
Swl:	54		
Test depth:	56		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3139768696		
Longitude:	-83.7797353165		
Methd coll:	Interpolation-Map		
Elevation:	855		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	9
Elev miv:	855	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	26		
Pct aq d:	26	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	74
Pct cm d:	74	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	48	A pct aq2:	19
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	81	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	20	Pct maq 2:	0
Pct cm 2:	80	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	75
Pct maq 3:	0	Pct cm 3:	25
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	30
Pct maq 5:	0	Pct cm 5:	70
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	48		
Horiz Conduct:	22.91675		
Vert Conduct:	.00012		
T2:	1100.0039		
D50plek:	91.40199		

**248  
East  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056801**

Wellid:	8100004780	Import id:	81727607005
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	OLSON M.D., NELS		
Well addr:	2950 NEWPORT RD.		
Well depth:	84		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	19
Const date:	1976-02-28 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	80		
Screen frm:	80		
Screen to:	84		
Swl:	37		
Test depth:	0		
Test hours:	2		
Test rate:	50	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3152430748		
Longitude:	-83.779593772		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	835		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	833	Elev dif:	2
Elev miv:	835	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	21		
Pct aq d:	21	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	79	Pct pcm d:	79
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported		
D r type:	Not Reported		
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	47	A pct aq2:	13
A pct maq2:	0	A pct pcm2:	87
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel & Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	60
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	40	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	10	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	90
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	47		
Horiz Conduct:	13.6383		
Vert Conduct:	1.14467		
T2:	641		
D50plek:	53.69039		

**BO249**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056461**

Wellid:	8100004929	Import id:	81727618032
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	HAMILL, WARREN		
Well addr:	2926 LAURENTIDE ST.		
Well depth:	47		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1968-03-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	43		
Screen frm:	43		
Screen to:	47		
Swl:	26		
Test depth:	29		
Test hours:	0		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3127242229		
Longitude:	-83.7800236935		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	11
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	47		
Pct aq d:	47	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	53
Pct cm d:	53	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	5	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	21	A pct aq2:	24

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	76	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	85
Pct maq 1:	0	Pct cm 1:	15
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	21		
Horiz Conduct:	71.42865		
Vert Conduct:	.00013		
T2:	1500.0016		
D50plek:	53.64701		

**BQ250**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI3000000057313**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000004782	Import id:	81727607007
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	RUTLEDGE, DON		
Well addr:	3255 MAPLE RD.		
Well depth:	62		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1972-09-16 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	62		
Screen frm:	58		
Screen to:	62		
Swl:	26		
Test depth:	33		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3185505445		
Longitude:	-83.7798648756		
Methd coll:	Interpolation-Map		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	840	Elev dif:	0
Elev miv:	840	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	36	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	36	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	36		
Horiz Conduct:	127.77778		
Vert Conduct:	110.20408		
T2:	4600		
D50plek:	266.45035		

**251  
West  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057244**

Wellid:	81000010608	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	H. S. LANDAU INC.		
Well addr:	4235 LITTLE DOWN LOT 7		
Well depth:	161		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-06-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	151		
Screen frm:	151		
Screen to:	161		
Swl:	85		
Test depth:	85		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	20
Latitude:	42.31801459		
Longitude:	-83.81408889		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	915	Elev dif:	915
Elev miv:	915	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	87
Pct cm d:	87	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	21	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	76	A pct aq2:	28
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	72	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	40
Pct maq 7:	0	Pct cm 7:	60
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	76		
Horiz Conduct:	27.63165		
Vert Conduct:	.00014		
T2:	2100.0055		
D50plek:	267.12221		

**BO252  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI3000000056509**

Wellid:	81000004931	Import id:	81727618034
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	SINCLAIR, DANIEL		
Well addr:	2934 LAURENTIDE ST.		
Well depth:	112		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-08-22 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	108		
Screen frm:	108		
Screen to:	112		
Swl:	68		
Test depth:	68		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3130429172		
Longitude:	-83.7797019981		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	853	Elev dif:	3
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	68		
Pct aq d:	68	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	32
Pct cm d:	32	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	44	A pct aq2:	18

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	82	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	50	Pct maq 4:	0
Pct cm 4:	50	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	44		
Horiz Conduct:	18.1819		
Vert Conduct:	.00012		
T2:	800.0036		
D50plek:	61.98156		

BP253  
ESE  
1/2 - 1 Mile  
Higher

MI WELLS MI300000056169

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000004911	Import id:	81727618014
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	KANISKI, WILLIAM		
Well addr:	2712 N. MAPLE RD.		
Well depth:	83		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1872
Const date:	1985-11-07 00:00:00.000	Case type:	Steel-black
Case dia:	4		
Case depth:	79		
Screen frm:	79		
Screen to:	83		
Swl:	49		
Test depth:	59		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3107835472		
Longitude:	-83.780537192		
Methd coll:	Interpolation-Map		
Elevation:	888		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	9
Elev miv:	888	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	84		
Pct aq d:	84	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	16
Pct cm d:	16	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	34	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	34	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	34		
Horiz Conduct:	175		
Vert Conduct:	85.71429		
T2:	5950		
D50plek:	321.42324		

**BR254**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055003**

Wellid:	81000003820	Import id:	81727513003
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BOYLE, JOHN		
Well addr:	3285 MILLER RD.		
Well depth:	168		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1980-02-11 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	168		
Screen frm:	164		
Screen to:	168		
Swl:	50		
Test depth:	51		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.302435894		
Longitude:	-83.7964004294		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	915		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	6
Elev niv:	915	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	13		
Pct aq d:	13	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	88
Pct cm d:	88	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	8	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	118	A pct aq2:	10
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	90	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	65
Pct maq 3:	0	Pct cm 3:	35
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	118		
Horiz Conduct:	10.16958		
Vert Conduct:	.00011		
T2:	1200.0106		
D50plek:	243.99876		

**BO255**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000056567**

Wellid:	81000004933	Import id:	81727618036
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	KING, HOWARD		
Well addr:	Not Reported		
Well depth:	106		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1978-01-06 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	106		
Screen frm:	102		
Screen to:	106		
Swl:	59		
Test depth:	59		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3134446795		
Longitude:	-83.7793869573		
Methd coll:	Interpolation-Map		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	843	Elev dif:	27
Elev miv:	870	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	49		
Pct aq d:	49	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	51
Pct cm d:	51	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	47	A pct aq2:	21

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	79	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	90	Pct maq 2:	0
Pct cm 2:	10	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	20
Pct maq 3:	0	Pct cm 3:	80
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	20
Pct maq 5:	0	Pct cm 5:	80
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	47		
Horiz Conduct:	21.27667		
Vert Conduct:	.00013		
T2:	1000.0037		
D50plek:	81.775		

**BS256  
NNW  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000058480**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000012834	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	JACK WU		
Well addr:	3640 WEST HURON RIVER		
Well depth:	136		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2002-12-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	126		
Screen frm:	126		
Screen to:	136		
Swl:	87		
Test depth:	87		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.3276376		
Longitude:	-83.80418864		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	850
Elev miv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	28		
Pct aq d:	28	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	28
Pct cm d:	28	Pct cm r:	0
Pct pcm:	44	Pct pcm d:	44
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	22	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	49	A pct aq2:	45
A pct maq2:	0	A pct pcm2:	55
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	80	A sc lith2:	Sand & Gravel
A sc lmod2:	Not Reported	A sc lmaq2:	AQ
A sc lpct2:	20	Pct aq 1:	20
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	80	Pct na 1:	0
Pct aq 2:	60	Pct maq 2:	0
Pct cm 2:	40	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	50	Pct pcm 4:	50
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	44	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	56
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	49		
Horiz Conduct:	77.55157		
Vert Conduct:	.00181		
T2:	3800.027		
D50plek:	302.44626		

**257  
WNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000057869**

Wellid:	81000014455	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	VALLEN, MARC & MARY		
Well addr:	2986 W. DELHI ROAD		
Well depth:	98		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2215
Const date:	2004-05-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	85		
Screen frm:	84		
Screen to:	98		
Swl:	60		
Test depth:	0		
Test hours:	4		
Test rate:	30	Test methd:	Air
Grouted:	1	Pmp cpcity:	20
Latitude:	42.322463		
Longitude:	-83.812131		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Address Matching-House Number		
Elevation:	879		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	905	Elev dif:	26
Elev miv:	879	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	62		
Pct aq d:	62	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	35
Pct cm d:	35	Pct cm r:	0
Pct pcm:	3	Pct pcm d:	3
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	14	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	38	A pct aq2:	50
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	50	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	10
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	15	Pct na 3:	0
Pct aq 4:	25	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	70
Pct maq 5:	0	Pct cm 5:	30
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	38		
Horiz Conduct:	50.00005		
Vert Conduct:	.0002		
T2:	1900.0019		
D50plek:	121.46417		

**BQ258**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000057254**

Wellid:	81000004781	Import id:	81727607006
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	HAMID, ISMAT		
Well addr:	3251 N. MAPLE RD.		
Well depth:	42		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	757
Const date:	Not Reported	Case type:	Unknown
Case dia:	0		
Case depth:	0		
Screen frm:	38		
Screen to:	42		
Swl:	10		
Test depth:	30		
Test hours:	4		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3180744811		
Longitude:	-83.779332972		
Methd coll:	Interpolation-Map		
Elevation:	828		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	827	Elev dif:	1
Elev miv:	828	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	95		
Pct aq d:	95	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	5
Pct cm d:	5	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	32	A pct aq:	94
A pct maq:	0	A pct pcm:	0
A pct cm:	6	A pct na:	0
A thickns2:	32	A pct aq2:	94

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	6	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel & Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	90
Pct maq 1:	0	Pct cm 1:	10
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	32		
Horiz Conduct:	171.87501		
Vert Conduct:	.0016		
T2:	5500.0002		
D50plek:	280.71126		

BP259  
ESE  
1/2 - 1 Mile  
Higher

MI WELLS MI300000056256

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000004926	Import id:	81727618029
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	LUITJE, BILL		
Well addr:	2677 WAYSIDE DR.		
Well depth:	72		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1984-12-05 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	72		
Screen frm:	67		
Screen to:	72		
Swl:	40		
Test depth:	42		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3113986569		
Longitude:	-83.779888475		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	4
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	69		
Pct aq d:	69	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	31
Pct cm d:	31	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	26	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	32	A pct aq2:	81
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	19	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	20	Pct maq 2:	0
Pct cm 2:	80	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	70
Pct maq 3:	0	Pct cm 3:	30
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	32		
Horiz Conduct:	81.25002		
Vert Conduct:	.00053		
T2:	2600.0006		
D50plek:	137.74286		

**260  
SE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000055592**

Wellid:	8100013419	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	BOB MAULBETSCH		
Well addr:	2575 BLUEBERRY		
Well depth:	99		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2003-05-06 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	89		
Screen frm:	89		
Screen to:	99		
Swl:	74		
Test depth:	74		
Test hours:	2		
Test rate:	3	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	18
Latitude:	42.30720364		
Longitude:	-83.7828998		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	928	Elev dif:	928
Elev niv:	928	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	26		
Pct aq d:	26	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	26
Pct cm d:	26	Pct cm r:	0
Pct pcm:	43	Pct pcm d:	43
Pct pcm r:	0	Pct na:	4
Pct na d:	4	Pct na r:	0
Pct flag:	Not Reported		
D r type:	Not Reported		
A thicknes:	13	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	25	A pct aq2:	52
A pct maq2:	0	A pct pcm2:	48
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported		
A sc lpct1:	100	A sc lmaq1:	AQ
A sc lmod2:	Not Reported		
A sc lpct2:	0	A sc lith2:	Not Reported
Pct maq 1:	0	A sc lmaq2:	Not Reported
Pct pcm 1:	45	Pct aq 1:	35
Pct aq 2:	30	Pct cm 1:	0
Pct cm 2:	70	Pct na 1:	20
Pct na 2:	0	Pct maq 2:	0
Pct maq 3:	0	Pct pcm 2:	0
Pct pcm 3:	40	Pct aq 3:	0
Pct aq 4:	0	Pct cm 3:	60
Pct cm 4:	0	Pct na 3:	0
Pct na 4:	0	Pct maq 4:	0
Pct maq 5:	0	Pct pcm 4:	100
Pct pcm 5:	0	Pct aq 5:	0
Pct aq 6:	0	Pct cm 5:	0
Pct cm 6:	0	Pct na 5:	0
Pct na 6:	0	Pct maq 6:	0
Pct maq 7:	0	Pct pcm 6:	0
Pct pcm 7:	0	Pct aq 7:	0
Pct aq 8:	0	Pct cm 7:	0
Pct cm 8:	0	Pct na 7:	0
Pct na 8:	0	Pct maq 8:	0
Pct maq 9:	0	Pct pcm 8:	0
Pct pcm 9:	0	Pct aq 9:	0
Pct aq 10:	0	Pct cm 9:	0
Pct cm 10:	0	Pct na 9:	0
Pct na 10:	0	Pct maq 10:	0
Pct maq 11:	0	Pct pcm 10:	0
Pct pcm 11:	0	Pct aq 11:	0
Pct aq 12:	0	Pct cm 11:	0
Pct cm 12:	0	Pct na 11:	0
Pct na 12:	0	Pct maq 12:	0
Pct maq 13:	0	Pct pcm 12:	0
Pct pcm 13:	0	Pct aq 13:	0
		Pct cm 13:	0
		Pct na 13:	0

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	25		
Horiz Conduct:	26.0048		
Vert Conduct:	.02083		
T2:	650.12		
D50plek:	28.94272		

**BQ261**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057412**

Wellid:	8100004784	Import id:	81727607009
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	JEROME, JAMES		
Well addr:	3270 N. MAPLE RD.		
Well depth:	52		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1966-11-10 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	48		
Screen frm:	48		
Screen to:	52		
Swl:	10		
Test depth:	14		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3192999418		
Longitude:	-83.7795522732		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	15
Elev miv:	865	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	42	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	42	A pct aq2:	100

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	42		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	4200		
D50plek:	285.10611		

BT262  
ENE  
1/2 - 1 Mile  
Higher

MI WELLS MI300000057820

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	8100004790	Import id:	81727607015
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	BOARD JR., DAVID M.		
Well addr:	1845 LANSDOWNE RD.		
Well depth:	193		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1986-10-30 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	193		
Screen frm:	185		
Screen to:	189		
Swl:	63		
Test depth:	63		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3221049592		
Longitude:	-83.7809140194		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	922	Elev dif:	2
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	18		
Pct aq d:	18	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	60
Pct cm d:	60	Pct cm r:	0
Pct pcm:	22	Pct pcm d:	22
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	6	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	126	A pct aq2:	25
A pct maq2:	0	A pct pcm2:	21
A pct cm2:	54	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	35
Pct pcm 3:	65	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	50
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	50	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	60	Pct maq 6:	0
Pct cm 6:	40	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	126		
Horiz Conduct:	73.81172		
Vert Conduct:	.00018		
T2:	9300.2768		
D50plek:	1822.24386		

**BR263**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000054937**

Wellid:	81000003821	Import id:	81727513004
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	COLLINS, ARTHUR		
Well addr:	3233 MILLER RD.		
Well depth:	160		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1980-10-15 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	160		
Screen frm:	152		
Screen to:	160		
Swl:	5		
Test depth:	6		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3020362591		
Longitude:	-83.795760684		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	915		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	912	Elev dif:	3
Elev miv:	915	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	21		
Pct aq d:	21	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	79
Pct cm d:	79	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	17	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	155	A pct aq2:	22
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	78	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	60
Pct maq 3:	0	Pct cm 3:	40
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	25	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	28
Pct maq 7:	0	Pct cm 7:	72
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	155		
Horiz Conduct:	21.93556		
Vert Conduct:	.00013		
T2:	3400.0121		
D50plek:	860.77215		

**BU264  
ENE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI3000000057528**

Wellid:	81000004791	Import id:	81727607016
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	MORGAN, ROBERT		
Well addr:	1745 WESTRIDGE RD.		
Well depth:	108		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	757
Const date:	1983-09-21 00:00:00.000	Case type:	Steel-black
Case dia:	4		
Case depth:	104		
Screen frm:	104		
Screen to:	108		
Swl:	68		
Test depth:	80		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3200744227		
Longitude:	-83.7795944009		
Methd coll:	Interpolation-Map		
Elevation:	905		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	899	Elev dif:	6
Elev miv:	905	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	9		
Pct aq d:	9	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	2
Pct cm d:	2	Pct cm r:	0
Pct pcm:	88	Pct pcm d:	88
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	13	A pct aq:	46
A pct maq:	0	A pct pcm:	38
A pct cm:	15	A pct na:	0
A thickns2:	40	A pct aq2:	15

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	80
A pct cm2:	5	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Medium	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	20
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	75	Pct na 1:	5
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	10
Pct pcm 5:	90	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	40		
Horiz Conduct:	15.00193		
Vert Conduct:	.00084		
T2:	600.0772		
D50plek:	42.93139		

**BS265  
NNW  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000058561**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000003763	Import id:	81727511023
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	BERG, MARK		
Well addr:	3656 HURON RIVER DR.		
Well depth:	130		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1983-06-15 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	130		
Screen frm:	126		
Screen to:	130		
Swl:	94		
Test depth:	92		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3283016476		
Longitude:	-83.8035121509		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	889	Elev dif:	1
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	8
Pct cm d:	8	Pct cm r:	0
Pct pcm:	70	Pct pcm d:	70
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	36	A pct aq:	78
A pct maq:	0	A pct pcm:	22
A pct cm:	0	A pct na:	0
A thickns2:	36	A pct aq2:	78
A pct maq2:	0	A pct pcm2:	22
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Medium	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	55
Pct pcm 1:	45	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	92	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	8
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	36		
Horiz Conduct:	233.33556		
Vert Conduct:	.04499		
T2:	8400.08		
D50plek:	472.53883		

**BP266**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056166**

Wellid:	8100004924	Import id:	81727618027
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	SAMPSON, MR.		
Well addr:	2663 WAYSIDE DR.		
Well depth:	53		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1199
Const date:	1975-06-04 00:00:00.000	Case type:	Steel-black
Case dia:	4		
Case depth:	49		
Screen frm:	49		
Screen to:	53		
Swl:	20		
Test depth:	40		
Test hours:	1		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3107371515		
Longitude:	-83.7796946983		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	11
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	15		
Pct aq d:	15	Pct aq r:	0
Pct maq:	23	Pct maq d:	23
Pct maq r:	0	Pct cm:	23
Pct cm d:	23	Pct cm r:	0
Pct pcm:	38	Pct pcm d:	38
Pct pcm r:	0	Pct na:	2
Pct na d:	2	Pct na r:	0
Pct flag:	Not Reported		
D r type:	Not Reported		
A thicknes:	13	A pct aq:	62
A pct maq:	0	A pct pcm:	38
A pct cm:	0	A pct na:	0
A thickns2:	33	A pct aq2:	24
A pct maq2:	0	A pct pcm2:	39
A pct cm2:	36	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	60	Pct cm 1:	0
Pct pcm 1:	35	Pct na 1:	5
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	60	Pct pcm 2:	40
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	33		
Horiz Conduct:	24.3964		
Vert Conduct:	.00027		
T2:	805.0812		
D50plek:	46.76525		

**BS267  
NNW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058547**

Wellid:	81000003764	Import id:	81727511024
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	NICHOLSON, MIKE		
Well addr:	3680 HURON RIVER DR.		
Well depth:	94		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1986-04-23 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	94		
Screen frm:	87.5		
Screen to:	91.5		
Swl:	53		
Test depth:	53		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3281656094		
Longitude:	-83.8041678457		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	869	Elev dif:	11
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	73		
Pct aq d:	73	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	11
Pct cm d:	11	Pct cm r:	0
Pct pcm:	15	Pct pcm d:	15
Pct pcm r:	0	Pct na:	1
Pct na d:	1	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	39	A pct aq:	79
A pct maq:	0	A pct pcm:	21
A pct cm:	0	A pct na:	0
A thickns2:	39	A pct aq2:	79

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	21
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	45
Pct maq 1:	0	Pct cm 1:	50
Pct pcm 1:	0	Pct na 1:	5
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	35
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	65	Pct na 3:	0
Pct aq 4:	95	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	5
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	39		
Horiz Conduct:	234.61756		
Vert Conduct:	.04588		
T2:	9150.085		
D50plek:	555.35004		

BT268  
ENE  
1/2 - 1 Mile  
Higher

MI WELLS MI300000057898

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000012157	Import id:	Not Reported
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	EUGENE SCHWARTZ		
Well addr:	1777 LANDSDOWNE		
Well depth:	130		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2001-12-19 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	120		
Screen frm:	120		
Screen to:	130		
Swl:	91		
Test depth:	91		
Test hours:	2		
Test rate:	7	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	25
Latitude:	42.32273611		
Longitude:	-83.78115368		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	925	Elev dif:	925
Elev miv:	925	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	37		
Pct aq d:	37	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	63
Pct cm d:	63	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	28	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	39	A pct aq2:	72
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	28	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	70
Pct maq 1:	0	Pct cm 1:	30
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	92	Pct maq 6:	0
Pct cm 6:	8	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	39		
Horiz Conduct:	71.7949		
Vert Conduct:	.00035		
T2:	2800.0011		
D50plek:	180.11052		

**BQ269**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000057331**

Wellid:	8100004789	Import id:	81727607014
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	APOSTOLERIS, B.		
Well addr:	2250 COUNTRY CLUB RD.		
Well depth:	50		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1978-10-09 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	46		
Screen frm:	46		
Screen to:	50		
Swl:	17		
Test depth:	19		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3186686675		
Longitude:	-83.7788063679		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	836	Elev dif:	4
Elev miv:	840	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	22		
Pct aq d:	22	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	78
Pct cm d:	78	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported		
D r type:	Not Reported		
A thicknes:	11	Rock top:	-1
A pct maq:	0	Spc cpcity:	0
A pct cm:	0	A pct aq:	100
A thickns2:	33	A pct pcm:	0
A pct maq2:	0	A pct na:	0
A pct cm2:	67	A pct aq2:	33
A hit swl:	F	A pct pcm2:	0
A hit rock:	F	A pct na2:	0
A sc lmod1:	Not Reported	A hit top:	F
A sc lpct1:	100	A sc lith1:	Sand
A sc lmod2:	Not Reported	A sc lmaq1:	AQ
A sc lpct2:	0	A sc lith2:	Not Reported
Pct maq 1:	0	A sc lmaq2:	Not Reported
Pct pcm 1:	0	Pct aq 1:	0
Pct aq 2:	5	Pct cm 1:	100
Pct cm 2:	95	Pct na 1:	0
Pct na 2:	0	Pct maq 2:	0
Pct maq 3:	0	Pct pcm 2:	0
Pct pcm 3:	0	Pct aq 3:	0
Pct aq 4:	0	Pct cm 3:	0
Pct cm 4:	0	Pct na 3:	0
Pct na 4:	0	Pct maq 4:	0
Pct maq 5:	0	Pct pcm 4:	0
Pct pcm 5:	0	Pct aq 5:	0
Pct aq 6:	0	Pct cm 5:	0
Pct cm 6:	0	Pct na 5:	0
Pct na 6:	0	Pct maq 6:	0
Pct maq 7:	0	Pct pcm 6:	0
Pct pcm 7:	0	Pct aq 7:	0
Pct aq 8:	0	Pct cm 7:	0
Pct cm 8:	0	Pct na 7:	0
Pct na 8:	0	Pct maq 8:	0
Pct maq 9:	0	Pct pcm 8:	0
Pct pcm 9:	0	Pct aq 9:	0
Pct aq 10:	0	Pct cm 9:	0
Pct cm 10:	0	Pct na 9:	0
Pct na 10:	0	Pct maq 10:	0
Pct maq 11:	0	Pct pcm 10:	0
Pct pcm 11:	0	Pct aq 11:	0
Pct aq 12:	0	Pct cm 11:	0
Pct cm 12:	0	Pct na 11:	0
Pct na 12:	0	Pct maq 12:	0
Pct maq 13:	0	Pct pcm 12:	0
Pct pcm 13:	0	Pct aq 13:	0
		Pct cm 13:	0
		Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	33		
Horiz Conduct:	33.3334		
Vert Conduct:	.00015		
T2:	1100.0022		
D50plek:	62.83878		

**BV270  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI3000000056276**

Wellid:	81000004922	Import id:	81727618025
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	POST, DAVID		
Well addr:	2484 WAYSIDE DR.		
Well depth:	75		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	36
Const date:	1974-08-05 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	75		
Screen frm:	71		
Screen to:	75		
Swl:	45		
Test depth:	53		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3115533277		
Longitude:	-83.7790931753		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	886	Elev dif:	4
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	45		
Pct aq d:	45	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	55
Pct cm d:	55	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	30	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	30	A pct aq2:	100

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	20
Pct maq 1:	0	Pct cm 1:	80
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	75
Pct maq 3:	0	Pct cm 3:	25
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	30		
Horiz Conduct:	200		
Vert Conduct:	150		
T2:	6000		
D50plek:	285.87556		

**BW271**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000056530**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	8100004961	Import id:	81727618064
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	REMPNER, M.		
Well addr:	2749 OAKCLEFT ST.		
Well depth:	60		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-02-03 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	56		
Screen frm:	56		
Screen to:	60		
Swl:	26		
Test depth:	34		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.3132022484		
Longitude:	-83.7784907125		
Methd coll:	Interpolation-Map		
Elevation:	865		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	859	Elev dif:	6
Elev miv:	865	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	38		
Pct aq d:	38	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	25
Pct cm d:	25	Pct cm r:	0
Pct pcm:	37	Pct pcm d:	37
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	23	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	34	A pct aq2:	68
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	32	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	15	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	10
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	34		
Horiz Conduct:	67.64709		
Vert Conduct:	.00031		
T2:	2300.0011		
D50plek:	130.27521		

**BX272**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000055828**

Wellid:	81000010720	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	MURRAY BLDRS INC		
Well addr:	1897 OAKLEIGH PLACE		
Well depth:	123		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2000-08-15 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	113		
Screen frm:	113		
Screen to:	123		
Swl:	33		
Test depth:	38		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	18
Latitude:	42.30886415		
Longitude:	-83.8132295		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	872	Elev dif:	872
Elev niv:	872	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	55		
Pct aq d:	55	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	45
Pct cm d:	45	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	44	A pct aq:	95
A pct maq:	0	A pct pcm:	0
A pct cm:	5	A pct na:	0
A thickns2:	90	A pct aq2:	47
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	53	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	30	Pct maq 2:	0
Pct cm 2:	70	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	5	Pct maq 4:	0
Pct cm 4:	95	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	90
Pct maq 5:	0	Pct cm 5:	10
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	90		
Horiz Conduct:	75.55561		
Vert Conduct:	.00019		
T2:	6800.0048		
D50plek:	966.09384		

**273  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056084**

Wellid:	8100004923	Import id:	81727618026
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	PACKARD, C.J.		
Well addr:	2649 WAYSIDE DR.		
Well depth:	57		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1977-08-23 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	53		
Screen frm:	53		
Screen to:	57		
Swl:	31		
Test depth:	31		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3102569302		
Longitude:	-83.7795871209		
Methd coll:	Interpolation-Map		
Elevation:	880		
Elev methd:	Topographic Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	1
Elev miv:	880	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	63		
Pct aq d:	63	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	37	Pct pcm d:	37
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	26	A pct aq:	65
A pct maq:	0	A pct pcm:	35
A pct cm:	0	A pct na:	0
A thickns2:	26	A pct aq2:	65

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	35
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	95
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	5	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	26		
Horiz Conduct:	130.76958		
Vert Conduct:	.00289		
T2:	3400.009		
D50plek:	144.38746		

**BV274  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000056357**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000004925	Import id:	81727618028
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	POLLACK, STEPHEN		
Well addr:	2694 WAYSIDE DR.		
Well depth:	55		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1970-12-02 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	51		
Screen frm:	51		
Screen to:	55		
Swl:	35		
Test depth:	41		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3120429419		
Longitude:	-83.7787699644		
Methd coll:	Interpolation-Map		
Elevation:	875		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	1
Elev miv:	875	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	20	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	20	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	20		
Horiz Conduct:	300		
Vert Conduct:	300		
T2:	6000		
D50plek:	190.58371		

**BW275  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056482**

Wellid:	8100004919	Import id:	81727618022
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	Not Reported		
Well addr:	2743 OAKCLEFT CT.		
Well depth:	62		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1971-10-08 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	58		
Screen frm:	58		
Screen to:	62		
Swl:	26		
Test depth:	33		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3128361625		
Longitude:	-83.7784523709		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	872		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	6
Elev miv:	872	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	61		
Pct aq d:	61	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	10
Pct cm d:	10	Pct cm r:	0
Pct pcm:	29	Pct pcm d:	29
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported		
D r type:	Not Reported		
A thicknes:	36	Rock top:	-1
A pct maq:	0	Spc cpcity:	0
A pct cm:	0	A pct aq:	100
A thickns2:	36	A pct pcm:	0
A pct maq2:	0	A pct na:	0
A pct cm2:	0	A pct aq2:	100
A hit swl:	T	A pct pcm2:	0
A hit rock:	F	A pct na2:	0
A sc lmod1:	Not Reported	A hit top:	F
A sc lpct1:	100	A sc lith1:	Sand
A sc lmod2:	Not Reported	A sc lmaq1:	AQ
A sc lpct2:	0	A sc lith2:	Not Reported
Pct maq 1:	0	A sc lmaq2:	Not Reported
Pct pcm 1:	90	Pct aq 1:	0
Pct aq 2:	80	Pct cm 1:	10
Pct cm 2:	20	Pct na 1:	0
Pct na 2:	0	Pct maq 2:	0
Pct maq 3:	0	Pct pcm 2:	0
Pct pcm 3:	0	Pct aq 3:	100
Pct aq 4:	0	Pct cm 3:	0
Pct cm 4:	0	Pct na 3:	0
Pct na 4:	0	Pct maq 4:	0
Pct maq 5:	0	Pct pcm 4:	0
Pct pcm 5:	0	Pct aq 5:	0
Pct aq 6:	0	Pct cm 5:	0
Pct cm 6:	0	Pct na 5:	0
Pct na 6:	0	Pct maq 6:	0
Pct maq 7:	0	Pct pcm 6:	0
Pct pcm 7:	0	Pct aq 7:	0
Pct aq 8:	0	Pct cm 7:	0
Pct cm 8:	0	Pct na 7:	0
Pct na 8:	0	Pct maq 8:	0
Pct maq 9:	0	Pct pcm 8:	0
Pct pcm 9:	0	Pct aq 9:	0
Pct aq 10:	0	Pct cm 9:	0
Pct cm 10:	0	Pct na 9:	0
Pct na 10:	0	Pct maq 10:	0
Pct maq 11:	0	Pct pcm 10:	0
Pct pcm 11:	0	Pct aq 11:	0
Pct aq 12:	0	Pct cm 11:	0
Pct cm 12:	0	Pct na 11:	0
Pct na 12:	0	Pct maq 12:	0
Pct maq 13:	0	Pct pcm 12:	0
Pct pcm 13:	0	Pct aq 13:	0
		Pct cm 13:	0
		Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	36		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	3600		
D50plek:	211.0769		

**BY276  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI3000000055760**

Wellid:	81000004951	Import id:	81727618054
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	SCHWEIZER, DIETER		
Well addr:	2455 BLUEBERRY LANE LOT 57		
Well depth:	99		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	111
Const date:	1967-05-05 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	74		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3083807682		
Longitude:	-83.780770088		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	11
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	71		
Pct aq d:	71	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	29	Pct pcm d:	29
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	80
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	20	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

**BY277**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS**      **MI300000055850**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	8100004950	Import id:	81727618053
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	RESSO, M.		
Well addr:	2442 BLUEBERRY LANE LOT 89		
Well depth:	85		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1978-11-01 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	85		
Screen frm:	77		
Screen to:	85		
Swl:	45		
Test depth:	47		
Test hours:	2		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3089955842		
Longitude:	-83.7802184431		
Methd coll:	Interpolation-Map		
Elevation:	890		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	895	Elev dif:	5
Elev miv:	890	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	42		
Pct aq d:	42	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	52
Pct cm d:	52	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	6
Pct na d:	6	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	22	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	40	A pct aq2:	55
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	45	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	50
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	25
Pct aq 2:	20	Pct maq 2:	0
Pct cm 2:	80	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	85	Pct maq 4:	0
Pct cm 4:	15	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	40		
Horiz Conduct:	27.50004		
Vert Conduct:	.00022		
T2:	1100.0018		
D50plek:	76.16819		

**BW278**  
**East**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000056594**

Wellid:	8100004920	Import id:	81727618023
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	OLSON, TRAVIS		
Well addr:	2755 OAKCLEFT ST.		
Well depth:	50		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1977-09-04 00:00:00.000	Case type:	Unknown
Case dia:	0		
Case depth:	50		
Screen frm:	46		
Screen to:	50		
Swl:	30		
Test depth:	34		
Test hours:	2		
Test rate:	22	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3135931182		
Longitude:	-83.7781766841		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	858		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	2
Elev niv:	858	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	44		
Pct aq d:	44	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	48
Pct cm d:	48	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	8
Pct na d:	8	Pct na r:	0
Pct flag:	Not Reported		
D r type:	Not Reported		
A thicknes:	20	Rock top:	-1
A pct maq:	0	Spc cpcity:	0
A pct cm:	0	A pct aq:	100
A thickns2:	20	A pct pcm:	0
A pct maq2:	0	A pct na:	0
A pct cm2:	0	A pct aq2:	100
A hit swl:	T	A pct pcm2:	0
A hit rock:	F	A pct na2:	0
A sc lmod1:	Wet/Moist	A hit top:	F
A sc lpct1:	100	A sc lith1:	Sand
A sc lmod2:	Not Reported	A sc lmaq1:	AQ
A sc lpct2:	0	A sc lith2:	Not Reported
Pct maq 1:	0	A sc lmaq2:	Not Reported
Pct pcm 1:	0	Pct aq 1:	0
Pct aq 2:	60	Pct cm 1:	80
Pct cm 2:	40	Pct na 1:	20
Pct na 2:	0	Pct maq 2:	0
Pct maq 3:	0	Pct pcm 2:	0
Pct pcm 3:	0	Pct aq 3:	0
Pct aq 4:	0	Pct cm 3:	0
Pct cm 4:	0	Pct na 3:	0
Pct na 4:	0	Pct maq 4:	0
Pct maq 5:	0	Pct pcm 4:	0
Pct pcm 5:	0	Pct aq 5:	0
Pct aq 6:	0	Pct cm 5:	0
Pct cm 6:	0	Pct na 5:	0
Pct na 6:	0	Pct maq 6:	0
Pct maq 7:	0	Pct pcm 6:	0
Pct pcm 7:	0	Pct aq 7:	0
Pct aq 8:	0	Pct cm 7:	0
Pct cm 8:	0	Pct na 7:	0
Pct na 8:	0	Pct maq 8:	0
Pct maq 9:	0	Pct pcm 8:	0
Pct pcm 9:	0	Pct aq 9:	0
Pct aq 10:	0	Pct cm 9:	0
Pct cm 10:	0	Pct na 9:	0
Pct na 10:	0	Pct maq 10:	0
Pct maq 11:	0	Pct pcm 10:	0
Pct pcm 11:	0	Pct aq 11:	0
Pct aq 12:	0	Pct cm 11:	0
Pct cm 12:	0	Pct na 11:	0
Pct na 12:	0	Pct maq 12:	0
Pct maq 13:	0	Pct pcm 12:	0
Pct pcm 13:	0	Pct aq 13:	0
		Pct cm 13:	0
		Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	20		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	2000		
D50plek:	67.11567		

**279**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI300000054866**

Wellid:	81000003822	Import id:	81727513005
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	HISS, LARRY		
Well addr:	3171 MILLER RD.		
Well depth:	134		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1987-05-26 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	127		
Screen frm:	127		
Screen to:	134		
Swl:	40		
Test depth:	43		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3015987512		
Longitude:	-83.794929984		
Methd coll:	Interpolation-Map		
Elevation:	920		
Elev methd:	Topographic Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	909	Elev dif:	11
Elev miv:	920	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	46		
Pct aq d:	46	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	54
Pct cm d:	54	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	13	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	94	A pct aq2:	38

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	62	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	75
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	40	Pct maq 4:	0
Pct cm 4:	60	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	50
Pct maq 5:	0	Pct cm 5:	50
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	16	Pct maq 6:	0
Pct cm 6:	84	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	94		
Horiz Conduct:	28.72347		
Vert Conduct:	.00016		
T2:	2700.0058		
D50plek:	419.37992		

**BX280**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000055831**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000014466	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	DON DUFEK		
Well addr:	1922 OAKLEIGH		
Well depth:	96		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2004-01-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	84		
Screen frm:	84		
Screen to:	96		
Swl:	40		
Test depth:	40		
Test hours:	2		
Test rate:	75	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.30891164		
Longitude:	-83.81365105		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	876
Elev miv:	876	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	20		
Pct aq d:	20	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	68
Pct cm d:	68	Pct cm r:	0
Pct pcm:	13	Pct pcm d:	13
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	21	A pct aq:	76
A pct maq:	0	A pct pcm:	24
A pct cm:	0	A pct na:	0
A thickns2:	56	A pct aq2:	30
A pct maq2:	0	A pct pcm2:	9
A pct cm2:	61	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	65
Pct pcm 1:	35	Pct na 1:	0
Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	90	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	5
Pct maq 3:	0	Pct cm 3:	95
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	75	Pct pcm 4:	25
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	56		
Horiz Conduct:	30.35729		
Vert Conduct:	.00016		
T2:	1700.0084		
D50plek:	161.08179		

**BU281**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS MI300000057463**

Wellid:	81000012384	Import id:	Not Reported
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	TED APOSTOLERIS		
Well addr:	2250 COUNTRY CLUB		
Well depth:	53		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2002-06-12 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	43		
Screen frm:	43		
Screen to:	53		
Swl:	15		
Test depth:	17		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.31965093		
Longitude:	-83.7786596		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Address Matching-House Number		
Elevation:	843		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	33
Elev niv:	843	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	23		
Pct aq d:	23	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	77
Pct cm d:	77	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	12	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	38	A pct aq2:	32
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	68	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	38		
Horiz Conduct:	31.57902		
Vert Conduct:	.00015		
T2:	1200.0026		
D50plek:	78.57538		

**BX282**  
**WSW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI3000000055855**

Wellid:	81000014860	Import id:	Not Reported
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	14
Owner name:	TUMOLO BUILDING LLC		
Well addr:	1954 OAKLEIGH PLACE		
Well depth:	120		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2004-05-19 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	110		
Screen frm:	110		
Screen to:	120		
Swl:	39		
Test depth:	39		
Test hours:	2		
Test rate:	7	Test methd:	Air
GROUTED:	1	Pmp cpcity:	0
Latitude:	42.30901		
Longitude:	-83.81384		
Methd coll:	GPS Code Meas. Std. Positioning Svc. SA Off		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	879	Elev dif:	879
Elev miv:	879	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	56		
Pct aq d:	56	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	38
Pct cm d:	38	Pct cm r:	0
Pct pcm:	6	Pct pcm d:	6
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	31	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	81	A pct aq2:	43

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	57	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	65
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	35	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	15
Pct maq 3:	0	Pct cm 3:	85
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	55
Pct maq 5:	0	Pct cm 5:	45
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	81		
Horiz Conduct:	129.62969		
Vert Conduct:	.00018		
T2:	10500.0046		
D50plek:	1314.95647		

283  
South  
1/2 - 1 Mile  
Higher

MI WELLS MI300000054832

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000003818	Import id:	81727513001
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	13
Owner name:	KNIGHT, PAUL		
Well addr:	1066 WAGNER RD.		
Well depth:	90		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1290
Const date:	1980-12-23 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	90		
Screen frm:	86		
Screen to:	90		
Swl:	50		
Test depth:	51		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3014163533		
Longitude:	-83.7981538849		
Methd coll:	Interpolation-Map		
Elevation:	895		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	899	Elev dif:	4
Elev miv:	895	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	44		
Pct aq d:	44	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	36
Pct cm d:	36	Pct cm r:	0
Pct pcm:	20	Pct pcm d:	20
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	7	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	40	A pct aq2:	20
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	80	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Wet/Moist	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	10
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	90	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	55
Pct maq 3:	0	Pct cm 3:	45
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	40		
Horiz Conduct:	20.00008		
Vert Conduct:	.00012		
T2:	800.0032		
D50plek:	56.34684		

**284  
NW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000058164**

Wellid:	8100003744	Import id:	81727511004
County:	Washtenaw	Township:	Scio
Town range:	02S 05E	Section:	11
Owner name:	SIKKENGA, WM.		
Well addr:	3200 E. DELHI RD.		
Well depth:	133		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	388
Const date:	1977-08-17 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	129		
Screen frm:	129		
Screen to:	133		
Swl:	120		
Test depth:	125		
Test hours:	4		
Test rate:	10	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3248004854		
Longitude:	-83.8116066824		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	840	Elev dif:	10
Elev niv:	850	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	24		
Pct aq d:	24	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	35
Pct cm d:	35	Pct cm r:	0
Pct pcm:	41	Pct pcm d:	41
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	4	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	13	A pct aq2:	31
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	69	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand & Gravel
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	40	Pct maq 2:	0
Pct cm 2:	60	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	40	Pct pcm 6:	60
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	13		
Horiz Conduct:	61.53853		
Vert Conduct:	.00014		
T2:	800.0009		
D50plek:	18.31267		

**BY285  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS MI300000055683**

Wellid:	8100004909	Import id:	81727618012
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	LEONARD, C.J.		
Well addr:	2558 N. MAPLE RD.		
Well depth:	119		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	524
Const date:	1967-08-16 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	113		
Screen frm:	113		
Screen to:	119		
Swl:	75		
Test depth:	75		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3078613053		
Longitude:	-83.7806508389		
Methd coll:	Interpolation-Map		
Elevation:	930		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	922	Elev dif:	8
Elev miv:	930	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	100		
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	44	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	44	A pct aq2:	100

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Fine	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	100
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	44		
Horiz Conduct:	25		
Vert Conduct:	25		
T2:	1100		
D50plek:	83.78488		

286  
East  
1/2 - 1 Mile  
Higher

MI WELLS MI300000056780

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	81000013055	Import id:	Not Reported
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	7
Owner name:	ROGER & JOAN ELLSWORTH		
Well addr:	2896 NEWPORT		
Well depth:	88		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2014
Const date:	2003-03-07 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	78		
Screen frm:	78		
Screen to:	88		
Swl:	40		
Test depth:	40		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.31505249		
Longitude:	-83.77752289		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	DEM30M	Depth flag:	Not Reported
Elev flag:	Elevation < DEMmin or Elevation > DEMmax		
Swl flag:	Not Reported		
Elev dem:	830	Elev dif:	830
Elev miv:	830	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	70		
Pct aq d:	70	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	30
Pct cm d:	30	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	28	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	48	A pct aq2:	58
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	42	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	70	Pct maq 2:	0
Pct cm 2:	30	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	100	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	48		
Horiz Conduct:	104.16671		
Vert Conduct:	.00024		
T2:	5000.002		
D50plek:	384.57933		

**BV287  
ESE  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI300000056230**

Wellid:	8100004916	Import id:	81727618019
County:	Washtenaw	Township:	Ann Arbor
Town range:	02S 06E	Section:	18
Owner name:	LEMMER, WILLIAM		
Well addr:	2360 BELGRADE NOTCH ST.		
Well depth:	105		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1586
Const date:	1980-01-18 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	98		
Screen frm:	98		
Screen to:	103		
Swl:	66		
Test depth:	67		
Test hours:	2		
Test rate:	12	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.3112908101		
Longitude:	-83.7783320769		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Methd coll:	Interpolation-Map		
Elevation:	910		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	905	Elev dif:	5
Elev miv:	910	Aq code:	Drift Well
Aq flag:	Not Reported		
Pct aq:	43		
Pct aq d:	43	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	30
Pct cm d:	30	Pct cm r:	0
Pct pcm:	27	Pct pcm d:	27
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported		
D r type:	Not Reported		
A thicknes:	19	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	37	A pct aq2:	51
A pct maq2:	0	A pct pcm2:	49
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Not Reported		
A sc lpct1:	100	A sc lmaq1:	AQ
A sc lmod2:	Not Reported		
A sc lpct2:	0	A sc lith2:	Not Reported
Pct maq 1:	0	A sc lmaq2:	Not Reported
Pct pcm 1:	0	Pct aq 1:	100
Pct aq 2:	25	Pct cm 1:	0
Pct cm 2:	75	Pct na 1:	0
Pct na 2:	0	Pct maq 2:	0
Pct maq 3:	0	Pct pcm 2:	0
Pct pcm 3:	20	Pct aq 3:	0
Pct aq 4:	0	Pct cm 3:	80
Pct cm 4:	0	Pct na 3:	0
Pct na 4:	0	Pct maq 4:	0
Pct maq 5:	0	Pct pcm 4:	100
Pct pcm 5:	20	Pct aq 5:	80
Pct aq 6:	0	Pct cm 5:	0
Pct cm 6:	0	Pct na 5:	0
Pct na 6:	0	Pct maq 6:	0
Pct maq 7:	0	Pct pcm 6:	0
Pct pcm 7:	0	Pct aq 7:	0
Pct aq 8:	0	Pct cm 7:	0
Pct cm 8:	0	Pct na 7:	0
Pct na 8:	0	Pct maq 8:	0
Pct maq 9:	0	Pct pcm 8:	0
Pct pcm 9:	0	Pct aq 9:	0
Pct aq 10:	0	Pct cm 9:	0
Pct cm 10:	0	Pct na 9:	0
Pct na 10:	0	Pct maq 10:	0
Pct maq 11:	0	Pct pcm 10:	0
Pct pcm 11:	0	Pct aq 11:	0
Pct aq 12:	0	Pct cm 11:	0
Pct cm 12:	0	Pct na 11:	0
Pct na 12:	0	Pct maq 12:	0
Pct maq 13:	0	Pct pcm 12:	0
Pct pcm 13:	0	Pct aq 13:	0
		Pct cm 13:	0
		Pct na 13:	0

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	37		
Horiz Conduct:	51.35184		
Vert Conduct:	.00206		
T2:	1900.018		
D50plek:	118.2687		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: MI Radon

### Radon Test Results

Zipcode	Test Date	LT Sign	Result
48103	1/28/2006		1.3
48103	2/13/2006		1.3
48103	2/20/2006		1.3
48103	2/13/2006		1.3
48103	2/10/2006		1.3
48103	2/20/1996		1.3
48103	1/15/2003		1.3
48103	5/15/2003		1.3
48103	11/7/2002		1.3
48103	3/30/2004		1.3
48103	12/20/2003		1.3
48103	6/25/2004		1.3
48103	3/14/2009		1.3
48103	2/12/1999		1.2
48103	4/15/1996		1.2
48103	1/31/2003		1.2
48103	4/3/2008		1.2
48103	7/6/2001		1.2
48103	8/28/2002		1.2
48103	8/20/2003		1.2
48103	5/1/2003		1.2
48103	4/25/2005		1.2
48103	2/16/2004		1.2
48103	1/21/2005		1.2
48103	3/1/2005		1.2
48103	2/6/2006		1.2
48103	1/19/2006		1.2
48103	12/12/2006		1.2
48103	2/13/2006		1.2
48103	12/18/1995		1.1
48103	2/7/2003		1.1
48103	2/14/2005		1.1
48103	4/15/2005		1.1
48103	7/5/1995		1.1
48103	11/9/2001		1.1
48103	10/3/2000		1.2
48103	2/2/2009		1.2
48103	2/17/2009		1.2
48103	1/7/2010		1.2
48103	10/24/2007		1.1
48103	3/24/1995		1.1
48103	3/13/1995		1.1
48103	11/4/2004		1.1
48103	3/27/2006		1.1
48103	4/17/2006		1.1
48103	2/13/2006		1.1
48103			

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	2/9/2006		1.1
48103	2/13/2006		1.1
48103	2/8/2006		1.1
48103	6/16/2006		1.1
48103	2/12/2008		1.1
48103	4/4/2003		1.0
48103	11/5/2004		1.0
48103	12/1/2008		1.1
48103	2/17/2009		1.1
48103	2/2/2009		1.1
48103	2/15/1999		1.0
48103	9/6/2005		1.9
48103	3/7/2005		1.9
48103	3/4/2006		1.9
48103	4/10/2006		1.9
48103	3/23/2006		1.9
48103	11/5/2001		1.9
48103	4/14/1997		1.9
48103	3/30/1998		1.9
48103	1/24/1996		1.9
48103	6/1/2002		1.9
48103	2/1/2003		1.9
48103	2/7/2003		1.9
48103	11/12/2004		1.9
48103	1/14/1995		1.0
48103	8/19/1994		1.0
48103	3/1/2007		1.0
48103	2/4/2006		1.0
48103	4/3/2006		1.0
48103	2/13/2006		1.0
48103	5/26/2009		1.0
48103	1/4/2008		1.0
48103	4/9/2007		1.0
48103	3/15/2008		1.0
48103	6/7/1995		1.8
48103	2/8/1999		1.8
48103	8/16/2003		1.8
48103	2/4/2006		1.9
48103	2/20/2006		1.9
48103	2/11/2006		1.9
48103	2/21/2006		1.9
48103	2/1/2006		1.9
48103	5/8/2006		1.9
48103	4/5/2008		1.9
48103	4/8/2008		1.9
48103	12/10/1999		1.9
48103	3/27/2009		1.9
48103	4/24/2006	<	0.3
48103	3/17/2008	<	0.3
48103	3/3/2007	<	0.3
48103	3/9/2007	<	0.3
48103	3/2/2007	<	0.3
48103	3/25/1997	<	0.3
48103	10/20/2006	<	0.3
48103	2/8/2006	<	0.3
48103	8/25/1995	<	0.3
48103			

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	7/26/2005	<	0.3
48103	7/25/2005	<	0.3
48103	6/6/2005	<	0.3
48103	2/8/2006	<	0.3
48103	2/9/2006	<	0.3
48103	1/16/2004		0.5
48103	2/9/2004		0.5
48103	8/10/1995		0.3
48103	1/13/2004	<	0.3
48103	2/2/2006	<	0.3
48103	1/21/2004	<	0.3
48103	4/9/2004	<	0.3
48103	2/9/2006		0.5
48103	2/13/2006		0.5
48103	4/18/2008		0.5
48103	11/1/2001	<	0.3
48103	5/1/2006	<	0.3
48103	1/30/2006	<	0.3
48103	1/26/2006	<	0.3
48103	1/24/2006	<	0.3
48103	2/14/2006	<	0.3
48103	2/24/2007		0.5
48103	3/13/2003	<	0.3
48103	3/17/2003	<	0.3
48103	4/7/2003	<	0.3
48103	7/24/2002	<	0.3
48103	10/22/2002	<	0.3
48103	3/11/2000		0.5
48103	4/15/2009		0.5
48103	11/19/2009		0.5
48103	3/9/2007	<	0.3
48103	6/12/2008	<	0.3
48103	2/11/2002	<	0.3
48103	2/28/2004	<	0.3
48103	5/20/2008	<	0.3
48103	9/6/1994		0.4
48103	3/8/2004	<	0.3
48103	2/10/2004	<	0.3
48103	1/23/2008	<	0.3
48103	1/31/2008	<	0.3
48103	2/11/1999	<	0.3
48103	1/7/1998	<	0.3
48103	5/15/2002	<	0.3
48103	6/6/2002	<	0.3
48103	5/19/2003	<	0.3
48103	6/25/2007	<	0.3
48103	4/9/2007	<	0.3
48103	3/5/2002	<	0.3
48103	3/21/2006	<	0.3
48103	3/4/2006	<	0.3
48103	1/19/2007	<	0.3
48103	1/17/2007	<	0.3
48103	3/4/2006	<	0.3
48103	1/8/2007	<	0.3
48103	3/27/2006	<	0.3
48103	4/22/1997	<	0.3
48103			

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	12/20/1995	0.8
48103	2/20/2003	0.5
48103	1/20/2003	0.5
48103	2/11/2003	0.5
48103	2/17/2009	1.0
48103	2/17/2009	1.0
48103	1/7/1998	0.8
48103	1/10/2003	0.8
48103	2/16/2002	0.8
48103	4/30/2005	0.7
48103	4/25/2005	0.7
48103	12/31/1993	0.9
48103	8/21/2003	0.8
48103	9/11/1995	0.9
48103	10/17/2005	0.6
48103	8/23/2003	0.9
48103	11/5/2001	0.9
48103	5/22/2003	0.9
48103	2/24/2004	0.6
48103	11/5/2004	0.6
48103	1/27/2006	0.6
48103	1/31/2005	0.8
48103	1/24/2004	0.8
48103	2/4/2006	0.7
48103	2/1/2003	0.9
48103	2/2/2007	0.6
48103	2/13/2006	0.8
48103	2/8/2007	0.7
48103	10/20/2008	0.7
48103	4/24/2006	0.8
48103	4/5/2008	0.7
48103	8/18/2007	0.7
48103	5/16/2005	0.9
48103	12/10/2007	0.8
48103	3/7/2006	0.9
48103	2/20/2006	0.9
48103	2/10/2006	0.9
48103	2/20/2006	0.9
48103	2/10/2006	0.9
48103	6/5/1999	0.6
48103	3/1/2008	0.8
48103	11/28/1994	0.7
48103	2/24/1995	0.7
48103	9/21/2000	0.7
48103	11/21/2005	0.9
48103	6/29/2001	0.8
48103	2/10/2009	0.6
48103	11/2/2007	0.9
48103	1/7/2008	0.9
48103	11/19/2009	0.6
48103	5/27/1994	0.8
48103	1/26/2009	0.8
48103	2/5/2009	0.7
48103	4/23/1997	0.6
48103	5/3/1996	0.6
48103	4/27/1995	0.9
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

48103	8/27/1996	0.5
48103	12/2/1996	0.5
48103	11/23/2009	0.8
48103	2/17/2009	0.8
48103	11/9/2001	0.7
48103	1/7/1998	0.6
48103	12/2/1996	0.6
48103	2/19/2003	0.6
48103	11/22/2002	0.6
48103	6/12/2009	0.9
48103	3/19/2002	0.5
48103	10/21/1996	0.7
48103	2/7/2003	0.7
48103	3/13/2002	0.7
48103	7/5/2003	0.6
48103	3/29/2002	0.6
48103	1/25/2003	0.6
48103	9/2/2009	0.9
48103	4/21/1995	1.8
48103	3/21/2009	1.8
48103	5/9/2009	1.8
48103	11/12/2009	1.8
48103	11/4/2005	1.8
48103	2/10/2006	1.8
48103	2/9/2006	1.8
48103	2/27/2006	1.8
48103	2/20/2006	1.8
48103	12/16/2006	1.8
48103	5/22/2009	2.9
48103	9/6/2007	2.9
48103	3/3/2008	2.9
48103	5/13/1999	2.8
48103	3/16/1995	2.8
48103	12/21/2009	2.8
48103	11/3/2009	2.7
48103	3/15/1997	2.6
48103	3/5/1999	2.6
48103	2/24/2009	2.6
48103	6/22/2009	2.6
48103	4/4/2000	2.9
48103	2/3/2000	2.9
48103	5/31/1999	2.9
48103	2/6/2001	2.9
48103	5/22/2006	2.5
48103	3/25/1994	2.5
48103	1/23/1996	2.5
48103	4/18/1997	2.5
48103	6/14/2003	2.5
48103	1/3/2006	2.5
48103	8/18/2007	2.5
48103	3/16/2007	2.5
48103	10/20/1994	2.5
48103	8/8/1994	2.5
48103	2/25/2000	2.5
48103	4/19/1999	2.5
48103	3/2/1995	2.5
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	1/14/2009	2.5
48103	2/6/2009	2.5
48103	2/12/2009	2.5
48103	1/30/2009	2.5
48103	7/13/2009	2.5
48103	8/30/1997	2.4
48103	2/1/2003	2.4
48103	9/3/2002	2.4
48103	2/14/2004	2.4
48103	9/27/2004	2.4
48103	6/26/2006	2.4
48103	9/5/2007	2.4
48103	4/8/2008	2.4
48103	11/24/2008	2.4
48103	4/17/2006	2.2
48103	2/10/2006	2.2
48103	1/24/2009	2.4
48103	3/16/2009	2.4
48103	4/20/1994	2.3
48103	3/21/2008	2.2
48103	3/9/2009	2.3
48103	4/10/2009	2.3
48103	7/6/2001	2.2
48103	12/6/1999	2.2
48103	3/6/2003	2.3
48103	4/18/2003	2.3
48103	3/14/1998	2.2
48103	6/18/1994	2.2
48103	9/6/1994	2.2
48103	9/15/1994	2.2
48103	10/1/2004	2.3
48103	6/12/1996	2.2
48103	2/26/2009	2.2
48103	12/29/1997	2.1
48103	8/19/2005	2.3
48103	3/1/2005	2.3
48103	2/28/2005	2.2
48103	3/2/1999	2.1
48103	2/16/1996	2.1
48103	9/12/1997	2.1
48103	2/6/2006	2.3
48103	2/9/2007	2.3
48103	2/3/2007	2.3
48103	2/4/2006	2.3
48103	2/27/2006	2.3
48103	2/26/2004	2.2
48103	2/7/2004	2.2
48103	2/6/2006	2.2
48103	3/26/2002	2.1
48103	11/2/2001	2.1
48103	6/26/2006	3.0
48103	4/25/2006	3.0
48103	4/10/2006	3.0
48103	4/3/2006	3.0
48103	12/10/2007	3.0
48103	1/10/2009	2.9
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	2/5/2009	2.9
48103	2/13/2009	2.9
48103	3/2/2009	2.9
48103	2/8/1996	2.7
48103	11/5/2001	2.7
48103	5/8/2002	2.7
48103	3/21/2003	2.6
48103	2/8/2008	3.0
48103	2/25/2000	3.0
48103	1/10/2003	2.7
48103	2/9/2005	2.7
48103	1/13/2005	2.7
48103	11/7/2001	2.6
48103	4/4/2005	2.6
48103	8/27/2004	2.6
48103	5/26/2000	3.0
48103	11/20/2003	2.8
48103	1/21/2002	2.8
48103	2/3/2003	2.8
48103	1/29/2003	2.8
48103	2/14/2004	2.7
48103	7/11/2006	2.7
48103	12/6/2006	2.7
48103	1/31/2006	2.6
48103	2/16/2007	2.6
48103	2/5/2007	2.6
48103	1/28/2006	2.6
48103	12/12/2005	2.6
48103	1/24/2006	2.6
48103	2/13/2006	2.6
48103	2/9/2006	2.6
48103	11/27/1998	2.9
48103	4/14/1997	2.9
48103	2/7/1994	2.9
48103	1/31/1994	2.9
48103	7/16/2004	2.8
48103	2/4/2006	2.8
48103	3/10/2006	2.8
48103	2/2/2007	2.8
48103	11/28/2005	2.8
48103	2/6/2006	2.7
48103	4/22/2006	2.7
48103	12/10/2007	2.7
48103	2/13/2007	2.6
48103	5/22/2009	2.6
48103	3/3/2007	2.6
48103	11/9/2007	2.6
48103	5/3/2003	2.9
48103	2/25/2002	2.9
48103	2/25/2002	2.9
48103	1/25/2003	2.9
48103	6/1/2002	2.9
48103	1/28/2003	2.9
48103	9/6/2005	2.9
48103	5/1/2006	2.8
48103	2/12/2007	2.8
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	2/9/2007		2.8
48103	1/30/2006		2.8
48103	1/14/2008		2.8
48103	7/2/1994		2.6
48103	11/29/1994		2.6
48103	11/6/2000		2.6
48103	6/16/2005		2.9
48103	2/20/2006		2.9
48103	2/22/2007		2.9
48103	2/6/2006		2.9
48103	5/16/2008		2.8
48103	10/12/2007		2.8
48103	5/7/2007		2.8
48103	12/21/2009		2.7
48103	2/14/2009		2.7
48103	3/2/2009		2.7
48103	3/19/2009	<	0.3
48103	2/6/2006		3.8
48103	11/7/2005		3.8
48103	7/24/2006		3.8
48103	2/2/2007		3.8
48103	1/10/2008		3.8
48103	1/18/2008		3.8
48103	2/20/2007		3.8
48103	12/8/2004		3.6
48103	8/27/2004		3.6
48103	3/31/2004		3.6
48103	2/16/2007		3.6
48103	2/25/2008	<	0.3
48103	3/9/2007	<	0.3
48103	2/23/2009	<	0.3
48103	2/24/2009	<	0.3
48103	2/7/2001		3.8
48103	11/12/2009		3.8
48103	1/26/2007		3.6
48103	12/19/2005		3.6
48103	2/6/2006		3.6
48103	11/9/2007		3.6
48103	1/29/2009		3.6
48103	1/31/2009		3.6
48103	4/3/2009		3.6
48103	2/6/2009		3.6
48103	10/28/1997		3.5
48103	4/7/2004		3.5
48103	7/12/2005		3.5
48103	6/16/2004		3.5
48103	1/15/2004		3.5
48103	11/13/2004		3.5
48103	12/2/1994	<	0.3
48103	3/14/1995	<	0.3
48103	3/27/2009		3.5
48103	2/28/2005		3.5
48103	2/13/2006		3.5
48103	8/4/2006		3.5
48103	2/6/2006		3.5
48103	1/30/2006		3.5
48103			

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	5/22/2007		3.5
48103	8/3/1998		3.4
48103	1/31/1994		3.4
48103	10/15/1998		3.4
48103	1/16/2003		3.4
48103	10/14/2004		3.4
48103	2/6/2007		3.4
48103	1/30/2006		3.4
48103	5/1/2006		3.4
48103	2/13/2006		3.4
48103	2/9/2006		3.4
48103	6/5/2006		3.4
48103	10/24/2000	<	0.3
48103	10/25/2000	<	0.3
48103	2/11/2003		3.2
48103	1/30/2003		3.2
48103	5/31/2003		3.2
48103	10/29/2001		3.2
48103	12/20/2001		3.2
48103	5/16/2002		3.2
48103	1/6/2007		3.1
48103	1/27/2006		3.1
48103	9/21/2000	<	0.3
48103	9/21/2000	<	0.3
48103	8/7/2000	<	0.3
48103	3/4/2006		3.2
48103	4/22/2006		3.2
48103	2/15/2006		3.2
48103	2/4/2006		3.2
48103	10/17/2008		3.1
48103	3/15/2008		3.1
48103	3/5/2009		3.4
48103	8/20/2001		3.3
48103	11/16/1996		3.3
48103	2/12/1999		3.3
48103	1/26/2001	<	0.3
48103	2/9/2001	<	0.3
48103	7/5/1994		3.1
48103	10/30/2002		3.3
48103	3/10/2003		3.3
48103	2/18/2004		3.3
48103	11/16/2006		3.2
48103	11/15/2007		3.2
48103	6/14/1999	<	0.3
48103	6/21/1999	<	0.3
48103	6/19/1999	<	0.3
48103	12/10/2004		3.3
48103	2/6/2006		3.3
48103	2/13/2007		3.3
48103	2/8/2006		3.3
48103	2/6/2006		3.3
48103	7/22/2008		3.2
48103	3/15/2008		3.2
48103	12/10/1994		3.2
48103	1/24/2001		3.2
48103	3/6/2009		3.1
48103			

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	1/9/2010		3.1
48103	2/10/2009		3.1
48103	2/4/2009		3.2
48103	8/3/1998		3.1
48103	2/15/1999		3.1
48103	10/19/1998		3.0
48103	2/18/1999		3.0
48103	2/22/1999		3.0
48103	11/3/2003		3.0
48103	11/9/2007		3.3
48103	2/8/1999		3.9
48103	2/24/2003		3.9
48103	12/13/2002		3.9
48103	3/28/2003		3.9
48103	6/26/2003		3.9
48103	2/6/2009		3.8
48103	11/29/1995		3.7
48103	10/14/1995		3.7
48103	11/2/2002		3.1
48103	8/17/2009	<	0.3
48103	2/2/2004		3.9
48103	1/24/2005		3.9
48103	11/13/2004		3.9
48103	10/16/2006		3.9
48103	1/28/2003		3.7
48103	10/17/2005		3.7
48103	2/14/2005		3.7
48103	11/22/2004		3.7
48103	9/6/2005		3.7
48103	10/31/2005		3.7
48103	2/15/2005		3.0
48103	3/7/2005		3.0
48103	2/6/2004		3.0
48103	12/11/2009	<	0.3
48103	3/30/2006		3.9
48103	11/9/2007		3.9
48103	1/18/1995		3.9
48103	9/10/1999		3.9
48103	1/10/2000		3.9
48103	4/9/2007		3.7
48103	2/9/2006		3.7
48103	2/8/2007		3.7
48103	3/20/2008		3.7
48103	8/17/1999		3.3
48103	4/3/2009		3.3
48103	11/10/2009	<	0.3
48103	11/2/2009	<	0.3
48103	3/2/2009		3.9
48103	2/26/2009		3.9
48103	6/9/2007		3.7
48103	12/14/2007		3.7
48103	2/26/2007		3.7
48103	10/31/2008		3.7
48103	10/29/2007		3.7
48103	7/27/2007		3.7
48103	6/3/1994		3.7
48103			

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	3/6/2003		3.1
48103	11/2/2001		3.1
48103	12/17/2004		3.1
48103	2/15/2005		3.1
48103	11/1/2004		3.1
48103	3/27/1998		3.8
48103	4/4/2000		3.7
48103	3/20/2009		3.7
48103	2/14/2009		3.7
48103	6/24/2009		3.7
48103	3/27/2009		3.7
48103	7/9/1994		3.4
48103	4/20/1999		3.4
48103	6/29/2009	<	0.3
48103	4/15/2009	<	0.3
48103	10/30/2001		3.8
48103	3/20/2003		3.8
48103	12/13/2001		3.8
48103	12/1/2003		3.8
48103	8/2/2005		3.8
48103	5/14/2005		3.8
48103	11/5/2001		3.6
48103	4/14/1997		3.2
48103	2/27/2009	<	0.3
48103	2/27/2009	<	0.3
48103	2/26/2009	<	0.3
48103	3/4/2006		1.7
48103	4/28/2007		1.7
48103	2/16/1999		1.7
48103	11/16/2001		1.7
48103	6/17/2002		1.7
48103	8/11/2003		1.7
48103	10/27/2001		1.7
48103	3/13/2003		1.7
48103	10/29/2002		1.7
48103	2/22/2003		1.7
48103	6/25/2004		1.7
48103	11/3/2004		1.7
48103	3/26/2004		1.7
48103	4/21/2005		1.7
48103	2/15/2005		1.7
48103	2/16/2007		1.7
48103	2/6/2006		1.7
48103	1/14/2003		7.6
48103	2/14/2004		7.6
48103	3/3/2007		7.6
48103	3/27/2009		7.3
48103	12/14/1998		7.2
48103	9/26/2006		7.2
48103	2/4/2006		7.2
48103	9/2/2008		6.9
48103	1/14/2000		6.9
48103	3/14/2009		6.9
48103	11/28/1997		6.8
48103	4/16/2005		6.6
48103	4/10/2006		6.6
48103			

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	10/23/2007	6.6
48103	8/11/2008	6.6
48103	7/17/2001	6.6
48103	1/24/2000	7.6
48103	4/6/2009	7.6
48103	2/22/1999	7.5
48103	5/1/2003	7.5
48103	2/2/2007	7.5
48103	2/7/2006	7.5
48103	6/5/1999	7.2
48103	1/24/2009	7.2
48103	12/21/2002	7.1
48103	10/17/2005	7.1
48103	2/20/2006	6.8
48103	11/7/2007	6.8
48103	7/13/2009	6.8
48103	4/24/2003	6.5
48103	3/16/2005	6.5
48103	6/11/2004	6.5
48103	2/25/2006	6.5
48103	1/26/2006	6.5
48103	4/16/2008	6.5
48103	8/18/2007	6.5
48103	7/24/2007	6.5
48103	4/28/2007	6.5
48103	8/13/1999	6.5
48103	2/12/2009	6.5
48103	4/3/2009	6.5
48103	4/3/2009	6.5
48103	2/7/2003	6.4
48103	6/1/2002	6.4
48103	2/27/2007	6.4
48103	6/9/2008	6.4
48103	7/21/1994	6.4
48103	11/13/2009	6.4
48103	5/22/2009	6.4
48103	4/13/2009	6.3
48103	11/9/2009	6.3
48103	11/3/2009	6.3
48103	11/3/1997	6.2
48103	7/15/1996	6.2
48103	2/4/1994	6.2
48103	6/5/2003	6.2
48103	10/17/2001	6.2
48103	2/24/2003	6.2
48103	1/22/2007	6.2
48103	2/27/2007	6.2
48103	1/28/2006	6.2
48103	11/22/2008	6.2
48103	12/6/2005	6.1
48103	6/14/1999	6.1
48103	6/9/2006	4.9
48103	2/9/2006	4.9
48103	2/17/2006	4.9
48103	3/13/2006	4.9
48103	12/10/2007	4.9
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	2/28/2009	6.1
48103	3/7/1994	6.0
48103	8/24/2002	6.0
48103	6/2/2003	6.0
48103	8/1/2005	6.0
48103	4/2/2004	6.0
48103	5/25/2006	5.6
48103	1/20/2007	5.6
48103	1/12/2008	5.6
48103	11/9/2007	5.6
48103	1/25/2010	5.6
48103	4/17/2006	5.2
48103	11/23/2007	5.2
48103	12/24/2008	5.2
48103	4/10/2007	5.2
48103	4/3/2004	4.6
48103	2/10/2007	4.6
48103	1/24/2006	4.6
48103	1/26/2006	6.0
48103	1/28/2006	6.0
48103	10/11/2008	6.0
48103	1/15/2000	6.0
48103	12/8/2009	6.0
48103	2/12/2009	5.6
48103	9/17/1998	5.5
48103	4/24/1996	5.5
48103	2/15/2000	5.2
48103	7/3/2009	5.2
48103	3/28/1998	5.1
48103	6/11/2001	4.9
48103	2/12/2009	4.9
48103	2/13/1998	4.8
48103	8/3/1998	4.8
48103	3/27/1999	5.9
48103	2/19/1996	5.9
48103	2/16/1999	5.9
48103	3/8/1997	5.9
48103	2/9/2002	5.9
48103	12/17/2001	5.9
48103	4/5/2003	5.9
48103	12/9/2003	5.9
48103	11/28/2005	5.9
48103	4/19/2004	5.9
48103	12/26/2009	5.5
48103	2/28/2003	5.1
48103	6/1/2002	5.1
48103	7/31/2009	4.8
48103	12/3/2008	4.8
48103	4/14/1997	4.7
48103	10/4/1995	4.7
48103	2/11/2006	5.9
48103	10/24/2007	5.9
48103	9/15/2008	5.9
48103	7/1/1999	5.9
48103	5/5/1999	5.9
48103	3/27/2000	5.9
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	1/27/2000	5.9
48103	2/20/2009	5.9
48103	11/16/2009	5.9
48103	2/17/2009	5.9
48103	4/6/2009	5.5
48103	12/8/2008	5.5
48103	11/24/1997	5.4
48103	11/24/1997	5.4
48103	1/23/2003	5.4
48103	5/9/2003	5.4
48103	12/22/2003	5.4
48103	1/28/2006	5.1
48103	4/9/2007	5.1
48103	2/20/1995	5.1
48103	1/13/2003	4.7
48103	8/7/2003	4.7
48103	3/28/2005	4.7
48103	1/29/2003	5.8
48103	2/15/2005	5.8
48103	4/27/2006	5.8
48103	2/14/2006	5.4
48103	2/13/2006	5.4
48103	3/22/2007	5.4
48103	10/30/1995	5.0
48103	8/15/1997	5.0
48103	2/12/1999	5.0
48103	2/7/2003	5.0
48103	2/27/2003	5.0
48103	10/29/2001	5.0
48103	1/20/2003	5.0
48103	1/25/2003	4.8
48103	11/5/2002	4.8
48103	4/2/2003	4.8
48103	11/1/2001	4.8
48103	7/5/2005	4.8
48103	2/20/2006	4.8
48103	3/27/2009	5.4
48103	1/24/2009	5.4
48103	1/24/2009	5.4
48103	5/1/1997	5.3
48103	1/5/2002	5.3
48103	2/2/2007	5.0
48103	3/14/2006	5.0
48103	1/28/2006	5.0
48103	2/15/2000	4.7
48103	11/2/2009	4.7
48103	8/7/2009	4.7
48103	2/5/2002	5.7
48103	4/23/2005	5.7
48103	6/22/2006	5.7
48103	8/2/2004	5.3
48103	1/28/2006	5.3
48103	2/13/2006	5.3
48103	2/11/2006	5.3
48103	6/22/2001	5.0
48103	8/25/2006	4.7
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	4/18/2008	4.7
48103	5/22/2009	4.7
48103	2/15/2000	4.7
48103	4/21/2008	5.7
48103	9/24/2007	5.7
48103	12/10/2005	5.3
48103	6/9/2008	5.3
48103	10/2/2008	5.3
48103	2/21/2009	5.3
48103	3/1/1999	4.9
48103	5/20/1997	4.9
48103	11/5/2002	4.9
48103	1/15/2002	4.9
48103	2/3/2003	4.9
48103	4/9/2002	4.9
48103	4/30/2004	4.9
48103	1/18/2007	4.8
48103	3/21/2008	4.8
48103	2/8/1999	5.6
48103	2/16/1998	5.6
48103	10/27/2001	5.6
48103	12/26/2009	5.3
48103	3/5/1998	5.2
48103	7/20/1995	5.2
48103	2/3/2003	5.2
48103	4/11/2003	5.2
48103	6/1/2002	5.2
48103	12/22/2003	5.2
48103	7/5/2005	5.2
48103	12/19/1996	7.9
48103	3/21/2002	7.9
48103	11/1/2002	7.9
48103	1/18/2002	7.9
48103	3/5/2007	7.9
48103	10/24/2007	7.5
48103	5/2/2000	7.5
48103	8/21/2000	7.5
48103	9/29/1999	7.5
48103	7/13/2009	7.5
48103	1/21/2002	7.4
48103	1/16/2003	7.4
48103	8/19/2005	7.4
48103	2/18/2005	7.4
48103	2/5/2007	7.1
48103	8/9/2007	7.1
48103	2/17/2009	7.1
48103	6/27/1995	7.0
48103	3/5/1999	7.0
48103	9/1/1998	6.7
48103	9/29/1997	6.7
48103	1/29/2003	6.7
48103	11/26/2001	6.7
48103	2/13/2003	6.7
48103	2/2/2007	6.7
48103	4/13/2009	7.9
48103	4/3/2006	7.8
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	2/13/2006	7.4
48103	12/11/2009	7.4
48103	9/6/1997	7.3
48103	2/20/2006	7.0
48103	5/22/2008	6.7
48103	2/7/2000	6.7
48103	7/2/2001	6.7
48103	2/6/2009	6.7
48103	11/21/2009	6.7
48103	4/3/1999	7.8
48103	2/10/2000	7.8
48103	1/24/2009	7.8
48103	1/26/2009	7.8
48103	2/2/2007	7.7
48103	5/7/2003	7.3
48103	10/26/2002	7.3
48103	2/11/2003	7.3
48103	2/15/2006	7.3
48103	5/4/2006	7.3
48103	1/21/1995	7.3
48103	12/3/2001	6.9
48103	2/28/2002	6.9
48103	1/17/2009	2.0
48103	3/5/2009	2.0
48103	5/28/1994	25.5
48103	2/15/2006	25.3
48103	2/20/2006	23.8
48103	12/11/2002	23.6
48103	4/2/1997	23.4
48103	3/10/2009	18.3
48103	5/8/2003	18.2
48103	6/6/2002	18.1
48103	12/9/2002	17.6
48103	7/8/2003	2.0
48103	7/18/2003	2.0
48103	11/12/2001	2.0
48103	10/6/2003	2.0
48103	4/9/1997	59.5
48103	2/7/2006	49.8
48103	1/8/2007	49.2
48103	3/11/1996	48.9
48103	6/27/2008	48.5
48103	3/18/1999	44.8
48103	4/3/2006	42.1
48103	1/27/2009	23.1
48103	11/1/2004	22.6
48103	10/14/1996	22.2
48103	2/6/2009	21.9
48103	2/10/2003	17.4
48103	4/15/2006	17.1
48103	10/29/2001	16.9
48103	4/3/2009	16.9
48103	11/20/2004	16.8
48103	1/10/2003	16.7
48103	2/20/1999	16.3
48103	7/31/2006	16.1
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	10/22/2007	16.1
48103	1/22/2008	16.0
48103	2/9/2009	16.0
48103	12/7/2005	15.9
48103	11/14/2002	15.7
48103	12/1/1997	14.1
48103	1/5/2002	14.1
48103	10/21/2004	14.1
48103	12/24/2005	14.1
48103	4/3/2006	14.0
48103	4/7/2008	14.0
48103	2/12/2000	14.0
48103	12/18/1996	13.9
48103	2/7/2003	13.9
48103	1/17/1996	13.7
48103	2/11/1995	15.4
48103	10/28/2000	15.4
48103	7/20/2004	15.1
48103	5/18/2007	15.1
48103	3/5/2009	15.1
48103	3/23/2004	15.0
48103	6/27/2003	14.9
48103	11/6/2001	14.7
48103	10/15/2004	14.7
48103	11/24/2007	14.7
48103	2/26/2009	14.6
48103	1/23/2001	14.5
48103	10/29/2001	14.3
48103	2/21/2003	14.2
48103	6/5/2004	14.2
48103	2/21/2008	13.6
48103	3/29/1999	13.5
48103	4/30/2005	13.5
48103	2/7/2006	13.5
48103	2/16/2007	13.5
48103	10/26/1996	13.4
48103	9/12/1997	13.4
48103	6/11/1999	13.4
48103	12/23/2002	13.3
48103	10/29/2001	13.2
48103	2/18/2005	13.2
48103	2/11/1995	13.1
48103	2/5/1996	13.0
48103	4/27/2004	13.0
48103	3/3/2006	13.0
48103	7/25/2003	12.9
48103	1/17/2004	12.9
48103	10/30/2001	12.8
48103	1/18/2003	12.7
48103	2/6/2006	12.7
48103	3/2/2009	12.6
48103	9/13/2006	12.5
48103	4/17/1998	12.4
48103	10/22/2001	12.4
48103	11/9/2001	12.4
48103	2/16/1995	9.0
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	11/12/2009	9.0
48103	3/12/2005	8.9
48103	4/16/2004	8.9
48103	2/9/2007	8.9
48103	8/28/1999	8.9
48103	11/27/2009	12.4
48103	11/6/1995	12.2
48103	1/21/2003	11.1
48103	4/28/2001	11.1
48103	1/20/2003	11.0
48103	5/12/1999	10.2
48103	1/17/2002	10.1
48103	5/3/2004	10.1
48103	10/26/2004	10.1
48103	2/26/2004	10.1
48103	4/25/2006	10.1
48103	3/14/2006	10.1
48103	6/18/1999	10.1
48103	6/3/1995	10.0
48103	2/28/2003	10.0
48103	10/13/1998	8.0
48103	3/22/1996	12.0
48103	3/6/2009	12.0
48103	2/12/1999	11.9
48103	2/2/2009	11.9
48103	11/16/2006	10.9
48103	11/13/2002	10.8
48103	1/21/2003	10.8
48103	3/17/2008	10.8
48103	3/14/2000	10.8
48103	7/12/1997	10.7
48103	10/30/1997	10.7
48103	2/22/1999	10.7
48103	5/16/2009	10.0
48103	12/6/2001	9.9
48103	2/2/2007	9.9
48103	6/6/1994	8.9
48103	6/25/2009	8.9
48103	3/12/2003	8.8
48103	2/25/2006	8.8
48103	2/2/2007	8.8
48103	2/15/2000	8.8
48103	2/13/2006	11.8
48103	2/3/2006	11.8
48103	4/7/2008	11.8
48103	11/6/2001	11.7
48103	11/27/2004	11.7
48103	1/30/2006	11.7
48103	2/6/2009	11.7
48103	1/24/2005	11.6
48103	4/7/2003	10.7
48103	10/29/2001	10.7
48103	4/5/2004	10.6
48103	4/7/2006	10.6
48103	3/25/1999	10.5
48103	12/1/2009	9.8
48103		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

### AREA RADON INFORMATION

	7/23/2002	9.7
48103	7/21/2004	9.7
48103	4/3/2006	8.5
48103	2/20/2006	8.5
48103	3/30/2006	8.5
48103	4/10/2006	8.5
48103	9/24/2007	8.5
48103	1/21/2003	8.4
48103	11/5/2004	8.4
48103	2/27/2006	11.6
48103	11/16/2007	11.6
48103	10/29/2007	11.4
48103	6/18/1999	11.4
48103	7/24/2004	10.5
48103	11/16/2005	10.5
48103	6/5/2006	10.5
48103	2/21/2009	10.5
48103	3/30/2004	10.4
48103	2/27/2006	9.7
48103	2/7/2006	9.7
48103	1/6/2006	9.6
48103	10/2/2007	9.6
48103	2/27/2006	8.4
48103	5/1/2006	8.4
48103	4/4/2009	8.4
48103	2/22/1999	8.3
48103	3/30/2004	8.3
48103	5/15/2008	11.3
48103	3/15/1996	11.2
48103	2/16/2005	11.2
48103	2/27/2006	11.2
48103	2/13/2009	10.4
48103	8/30/2006	10.3
48103	10/10/2007	10.3
48103	11/28/1998	10.2
48103	3/21/2003	10.2
48103	12/1/2003	10.2
48103	5/5/1997	9.5
48103	2/11/2002	9.4
48103	2/28/2003	8.7
48103	6/18/2004	8.7
48103	12/22/2006	8.7
48103	9/13/2008	8.7
48103	11/29/1999	8.7
48103	12/9/2002	2.1
48103	1/12/2005	2.1
48103	3/7/2005	2.1
48103	3/11/2004	2.1
48103	4/16/2005	2.0
48103	11/4/2005	2.0
48103	9/6/2005	2.0
48103	4/28/2007	9.4
48103	4/4/2003	9.3
48103	8/13/1999	8.2
48103	2/2/2009	8.2
48103	4/17/2002	8.1
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	2/17/2006	8.1
48103	3/18/2005	2.1
48103	3/4/2006	2.1
48103	1/28/2006	2.1
48103	3/23/2006	2.0
48103	2/8/2006	2.0
48103	3/31/2006	2.0
48103	11/16/1995	9.2
48103	4/8/1997	9.2
48103	7/28/2004	9.2
48103	7/12/1997	9.1
48103	3/22/2008	8.3
48103	1/31/1995	8.3
48103	2/22/2003	8.2
48103	4/8/2002	8.2
48103	4/5/2004	8.2
48103	12/9/2004	8.2
48103	2/27/2006	8.2
48103	5/8/2006	8.2
48103	2/27/2006	2.1
48103	5/22/2009	2.1
48103	5/22/2006	2.0
48103	2/18/2000	9.1
48103	2/3/2009	9.1
48103	8/26/1995	9.0
48103	10/27/2001	9.0
48103	4/22/2002	9.0
48103	7/17/2006	9.0
48103	9/6/2005	8.6
48103	4/15/1999	8.6
48103	12/1/2000	8.6
48103	11/16/2009	8.6
48103	8/27/2001	8.5
48103	3/28/2008	2.1
48103	11/30/1994	2.1
48103	3/20/2008	2.0
48103	10/25/2002	21.6
48103	1/13/2003	20.9
48103	6/18/2001	30.6
48103	6/1/1998	20.2
48103	1/13/2003	20.0
48103	12/10/2002	19.6
48103	8/17/2009	2.1
48103	6/9/2009	2.1
48103	3/5/2009	2.1
48103	1/9/2009	2.0
48103	1/18/2002	28.6
48103	5/28/1994	26.7
48103	2/20/2009	19.2
48103	4/3/2009	19.1
48103	5/21/2003	18.7
48103	4/10/2006	18.7
48103	2/9/2009	18.7
48103	6/27/1995	1.6
48103	2/20/1999	1.6
48103	11/24/2003	1.6
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	10/27/2001	1.6
48103	12/6/2001	1.6
48103	1/17/2002	1.6
48103	1/30/2004	1.6
48103	5/28/2007	1.6
48103	6/5/2009	4.5
48103	2/6/2009	4.5
48103	2/21/2009	4.5
48103	3/6/2009	4.5
48103	2/2/2009	4.5
48103	10/20/1997	4.4
48103	7/21/2003	4.4
48103	2/22/2007	4.3
48103	2/2/2006	4.3
48103	2/10/2000	4.2
48103	2/11/2009	4.2
48103	2/14/2009	4.2
48103	2/21/2009	4.2
48103	3/20/2009	4.2
48103	5/30/2003	4.0
48103	2/7/2003	4.0
48103	8/28/2004	4.0
48103	1/28/2002	4.4
48103	2/15/2005	4.4
48103	4/12/2004	4.4
48103	11/7/2005	4.4
48103	5/7/2009	4.3
48103	9/24/2007	4.3
48103	3/2/1998	4.1
48103	10/25/2001	4.1
48103	12/5/2001	4.1
48103	11/3/2001	4.1
48103	6/1/2002	4.1
48103	2/7/2003	4.1
48103	2/13/2006	4.0
48103	3/6/2006	4.0
48103	5/7/2009	4.0
48103	7/6/2007	4.6
48103	5/22/2006	4.4
48103	1/28/2006	4.4
48103	2/14/2006	4.4
48103	7/20/2007	4.4
48103	1/28/2000	4.4
48103	1/11/2000	4.4
48103	1/24/2009	4.3
48103	3/16/2009	4.3
48103	11/24/2009	4.3
48103	4/30/2003	4.1
48103	2/20/2006	4.1
48103	12/16/2006	4.1
48103	6/22/2006	4.1
48103	1/18/2010	4.6
48103	2/21/2009	4.6
48103	2/17/2009	4.6
48103	5/14/1997	4.5
48103	4/6/1998	4.5
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	10/30/2001	4.5
48103	1/31/1994	4.4
48103	3/27/2009	4.4
48103	3/25/2009	4.4
48103	8/25/2003	4.2
48103	10/30/2002	4.2
48103	12/13/2002	4.2
48103	3/14/2003	4.2
48103	3/28/2003	4.2
48103	5/8/2006	4.2
48103	1/26/2006	4.1
48103	2/13/2006	4.1
48103	5/14/2009	4.1
48103	3/9/2007	4.1
48103	3/31/2008	4.1
48103	11/8/2001	4.5
48103	2/6/2007	4.5
48103	4/22/2006	4.5
48103	1/28/2006	4.5
48103	3/13/2006	4.5
48103	11/6/2006	4.5
48103	7/16/2002	4.3
48103	1/17/2002	4.3
48103	10/27/2001	4.3
48103	2/21/2006	4.2
48103	2/13/2006	4.2
48103	7/27/2001	4.1
48103	2/7/2009	4.1
48103	2/6/2009	4.1
48103	5/5/1997	4.0
48103	4/18/1997	4.0
48103	2/8/2006	4.5
48103	4/4/2000	4.5
48103	4/16/2009	1.6
48103	2/17/2009	1.6
48103	3/18/1999	1.5
48103	9/11/1995	1.5
48103	7/5/1995	1.5
48103	2/3/2007	1.6
48103	11/7/2005	1.6
48103	2/15/2007	1.6
48103	4/10/2006	1.6
48103	4/10/2006	1.6
48103	4/24/2006	1.6
48103	6/3/2006	1.6
48103	2/4/2006	1.6
48103	3/2/2007	1.6
48103	8/18/2007	1.6
48103	4/8/2008	1.6
48103	8/9/1999	1.6
48103	3/6/2009	1.6
48103	8/17/2009	1.6
48103	2/16/2007	1.5
48103	10/7/2006	1.5
48103	7/17/2006	1.5
48103	7/11/2008	1.5
48103		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

	6/13/2001	1.5
48103	3/6/2002	1.5
48103	11/6/2001	1.5
48103	5/21/2005	1.5
48103	3/2/2005	1.5
48103	3/26/2003	1.4
48103	2/28/2004	1.4
48103	2/13/2006	1.4
48103	4/18/2009	1.5
48103	4/25/2009	1.5
48103	5/9/2009	1.5
48103	2/5/2009	1.5
48103	2/5/2009	1.5
48103	3/25/1997	1.4
48103	10/30/1995	1.4
48103	8/24/1995	1.4
48103	4/14/1997	1.4
48103	2/16/1999	1.4
48103	11/29/2007	1.4
48103	5/12/1999	1.4
48103	1/22/2010	1.4
48103	1/19/2010	1.4
48103	6/2/2006	1.4
48103	2/2/2007	1.4
48103	5/5/2007	1.4
48103	2/9/2006	1.4
48103	2/4/2006	1.4
48103	4/17/2006	1.4
48103	5/20/2008	1.4
48103	4/5/2008	1.4

Federal EPA Radon Zone for WASHTENAW County: 1

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

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Federal Area Radon Information for Zip Code: 48103

Number of sites tested: 25

<u>Area</u>	<u>Average Activity</u>	<u>% &lt;4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% &gt;20 pCi/L</u>
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	4.768 pCi/L	72%	24%	4%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

### State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### Water Well Data

Source: Department of Environmental Quality

Telephone: 517-335-9218

The data in this file was obtained from Wellogic, the Michigan Department of Environmental Quality Statewide Groundwater Database (SGWD). Wellogic contains approximately 425,000 water well records found within the State of Michigan, and although it represents the best available data, it cannot be considered a complete database of all the wells or well records in existence.

## OTHER STATE DATABASE INFORMATION

#### Michigan Oil and Gas Wells

Source: Department of Environmental Quality

Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

### RADON

#### State Database: MI Radon

Source: Department of Environmental Quality

Telephone: 517-335-9551

Radon Test Results

#### Michigan Radon Test Results

Source: Department of Environmental Quality

Telephone: 517-335-8037

These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

### STREET AND ADDRESS INFORMATION

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APPENDIX E

HISTORICAL AERIAL PHOTOGRAPHS





**Brokaw Property**

3013 West Huron River Drive  
Ann Arbor, MI 48103

Inquiry Number: 3719601.5  
September 10, 2013

## The EDR Aerial Photo Decade Package

# EDR Aerial Photo Decade Package

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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**Date EDR Searched Historical Sources:**

Aerial Photography September 10, 2013

**Target Property:**

3013 West Huron River Drive

Ann Arbor, MI 48103

<u><i>Year</i></u>	<u><i>Scale</i></u>	<u><i>Details</i></u>	<u><i>Source</i></u>
1937	Aerial Photograph. Scale: 1"=500'	Flight Year: 1937	AAA
1940	Aerial Photograph. Scale: 1"=500'	Flight Year: 1940	AAA
1949	Aerial Photograph. Scale: 1"=500'	Flight Year: 1949	Detroit Edison
1955	Aerial Photograph. Scale: 1"=500'	Flight Year: 1955	CSS
1963	Aerial Photograph. Scale: 1"=500'	Flight Year: 1963	SEMCOG
1969	Aerial Photograph. Scale: 1"=500'	Flight Year: 1969	SEMCOG
1978	Aerial Photograph. Scale: 1"=600'	Flight Year: 1978	ASCS
1985	Aerial Photograph. Scale: 1"=500'	Flight Year: 1985	SEMCOG
1992	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1992	EDR
2000	Aerial Photograph. Scale: 1"=500'	Flight Year: 2000	SEMCOG
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR



INQUIRY #: 3719601.5

YEAR: 1937

| = 500'





**INQUIRY #:** 3719601.5

**YEAR:** 1940

| = 500'





INQUIRY #: 3719601.5

YEAR: 1949

| = 500'





INQUIRY #: 3719601.5

YEAR: 1955

| = 500'





INQUIRY #: 3719601.5

YEAR: 1963

| = 500'





INQUIRY #: 3719601.5

YEAR: 1969

| = 500'





**INQUIRY #:** 3719601.5

**YEAR:** 1978

 = 600'





**INQUIRY #:** 3719601.5

**YEAR:** 1985

| = 500'





**INQUIRY #:** 3719601.5

**YEAR:** 1992

 = 500'





INQUIRY #: 3719601.5

YEAR: 2000

| = 500'





**INQUIRY #:** 3719601.5

**YEAR:** 2005

| = 500'





**INQUIRY #:** 3719601.5

**YEAR:** 2006

| = 500'





**INQUIRY #:** 3719601.5

**YEAR:** 2009

 = 500'





**INQUIRY #:** 3719601.5

**YEAR:** 2010

 = 500'





**INQUIRY #:** 3719601.5

**YEAR:** 2012

 = 500'



APPENDIX F

SANBORN FIRE INSURANCE MAPS





**Brokaw Property**

3013 West Huron River Drive  
Ann Arbor, MI 48103

Inquiry Number: 3719601.3  
September 05, 2013

## Certified Sanborn® Map Report

# Certified Sanborn® Map Report

9/05/13

**Site Name:**

Brokaw Property  
3013 West Huron River Drive  
Ann Arbor, MI 48103

**Client Name:**

The Mannik & Smith Group  
2365 Haggerty Road South  
Canton, MI 48188

EDR Inquiry # 3719601.3

Contact: Ryan Montri



The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by The Mannik & Smith Group were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn) and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

## Certified Sanborn Results:

**Site Name:** Brokaw Property  
**Address:** 3013 West Huron River Drive  
**City, State, Zip:** Ann Arbor, MI 48103  
**Cross Street:**  
**P.O. #** ANNA0026  
**Project:** Brokaw Property  
**Certification #** 40DB-4FFA-B452



Sanborn® Library search results  
Certification # 40DB-4FFA-B452

## UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

*The Sanborn Library LLC Since 1866™*

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APPENDIX G  
CITY DIRECTORIES



**Brokaw Property**

3013 West Huron River Drive  
Ann Arbor, MI 48103

Inquiry Number: 3719601.6  
September 11, 2013

# The EDR-City Directory Image Report

## TABLE OF CONTENTS

### SECTION

Executive Summary

Findings

City Directory Images

*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

### DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

### RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2013	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
2008	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1998	<input type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1993	<input type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1988	<input type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1983	<input type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1978	<input type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company
1974	<input type="checkbox"/>	<input type="checkbox"/>	Bresser's Cross-Index Directory Company

### RECORD SOURCES

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## FINDINGS

### TARGET PROPERTY STREET

3013 West Huron River Drive  
Ann Arbor, MI 48103

Year

CD Image

Source

### West Huron River Drive

2013	pg A1	Bresser's Cross-Index Directory Company	
2008	pg A2	Bresser's Cross-Index Directory Company	
2003	pg A3	Bresser's Cross-Index Directory Company	
1998	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1993	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1988	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1983	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1978	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1974	-	Bresser's Cross-Index Directory Company	Street not listed in Source

## FINDINGS

### CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<b><u>North Wagner Road</u></b>			
2013	-	Bresser's Cross-Index Directory Company	Street not listed in Source
2008	-	Bresser's Cross-Index Directory Company	Street not listed in Source
2003	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1998	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1993	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1988	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1983	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1978	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1974	-	Bresser's Cross-Index Directory Company	Street not listed in Source

## **City Directory Images**

West Huron River Drive

2013

● W HURON RIVER DR

Ann Arbor

CT 4031.00	O	1133 - 2385	SA
CT 4035.00	E	3642 - 3642	SC
		1010 - 3642 . . . .	48103

➔ -BIRD RD INTS

1010	★	City Of Ann Arbor	. . . . .	10	734.794.9805
1133		John Charles Bruno	. . . . .	10	● NP
		Rose Bruno	. . . . .	10	● NP
1141		Walter Robert Kernnitz Jr	. . . . .	94	● 734.668.0907
1155	◇	Kevin David Schaub	. . . . .	94	● NP
	◇	Susan Christina Schaub	. . . . .	94	● NP
1335		John Leslie King	. . . . .	00	● 734.662.4422
		Kathleen Marie King	. . . . .	00	● 734.662.4422
1689		Kerstin I Weibull	. . . . .	94	● 734.741.0204
		Nils Gustav Weibull	. . . . .	94	● 734.741.0204
1701		Julio Depietro	. . . . .	78	● NP
		Rocco Anthony Depietro III	. . . . .	78	● NP
1717		Jane Ella Kinzinger	. . . . .	84	● 734.994.0444
		John Forest Kinzinger	. . . . .	84	● 734.994.0444
1733			. . . . .		NP
1873		Carol Alice Harris	. . . . .	91	● 734.930.2744
		James Warren Harris	. . . . .	91	● 734.930.2744
1885	◇	Martha Alice Agnew	. . . . .	94	● 734.665.3388
	◇	Webster W Smith	. . . . .	94	● 734.665.3388

-FOSTER RD INTS

2277			. . . . .		NP
2289		Carol Anne Jespersen	. . . . .	99	● 734.996.8119
2325		Rolf H Schweizer	. . . . .	64	● 734.665.6459
		Janet Arlene Schwiezer	. . . . .	64	● 734.665.6459
2385			. . . . .		NP
3642	▲	Bryan Clark	. . . . .	02	NP
		24 RESIDENCE			1 BUSINESS

**West Huron River Drive**

**2008**

**W HURON RIVER DR**

**48103**

**ANN ARBOR**

1133- 2385 CT403100 SA

■ **BIRD RD**

1133 Kemnitz Betty P . . . . 81 734-663 - 1479  
 Kemnitz Waller R . . . . 81 734-663 - 1479  
 1136 ▲ XXXX . . . . . NP  
 1141 Kemnitz Walter R Jr . . 04 ○ 734-668 - 0907

■ **WARRINGTON DR**

1155 Schaub George . . . . . 99 ○ 734-769 - 7576  
 Schaub George A . . . . 99 ○ 734-769 - 7578  
 1160 ▲ XXXX . . . . . NP  
 1170 ▲ XXXX . . . . . NP  
 1176 ▲ XXXX . . . . . NP  
 1335 King John L . . . . . 04 ● 734-662 - 4422  
 King Kathleen . . . . . 04 ● 734-662 - 4422  
 1689 Weibull Nils G . . . . . 94 ● 734-741 - 0204  
 1701 Depietro Rocco Jr . . . . 03 ● NP  
 1717 Kinzinger Jane . . . . . 04 ○ 734-994 - 0444  
 Kinzinger John . . . . . 04 ○ 734-994 - 0444  
 1733 XXXX . . . . . NP  
 1873 Harris James W . . . . . 91 ● 734-930 - 2744  
 1885 Agnew M . . . . . 04 734-665 - 3388  
 Smith Webster . . . . . 94 ● 734-665 - 3388

■ **FOSTER RD**

2277 Ewing Rodney C. . . . . 04 ○ 734-998 - 1761  
 2289 Jespersen C . . . . . 99 ● 734-996 - 8119  
 2325 Schweizer Rolf H . . . . 64 ● 734-665 - 6459  
 2385 Davis Nancy . . . . . 77 734-662 - 8514  
 Nancy Davis . . . . . 77 ● NP

■ **N MAPLE RD**

0 BUSINESS

24 RESIDENCE

## West Huron River Drive

2003

● W HURON RIVER DR		48103
Ann Arbor		
1000- 1399 CT4031		SA..
111	★ Girl Scts-Hrn Vly 95	734-769-8983
	★ Huron Vly GRL SCT 95	734-769-8983
1114	Richard Fusinski	734-481-0989
1133	Betty P Kemnitz .81	734-663-1479
	Walter R Kemnitz .81	734-663-1479
1155	George A Schaub .99	734-769-7578
	Mildred Schaub .99	734-769-7578
1335	Mary A Schieve .87	734-994-0464
1689	Kerstin I Weibull .96	734-741-0204
	Nils G Weibull .96	734-741-0204
1701	Rocco A Depietro .78	734-332-1570
<b>1717</b>	<b>Apartments</b>	
D	Jane E Kinzinger .84	NP ◇
D	John F Kinzinger .84	NP ◇
<b>1733</b>	<b>Apartments</b>	
D	Betty L Ehrfinger .62	734-663-6426
1873	Carol A Harris .91	734-930-2744
	James W Harris .91	734-930-2744
1885	Martha A Agnew .94	734-665-9288
	Webster Smith .94	734-665-3388
2277	Rodney C Ewing .96	734-998-1758
	Helga G Fuchs .96	734-998-1761
2289	Carol A Jespersen .99	734-996-8119
<b>— N MAPLE RD INTS</b>		
2325	Rolf H Schweizer .64	734-665-6459
2385	Helen P Davis .77	734-662-8514
	Nancy L Davis .77	734-662-8514
3444	John Stetz	734-677-3444
3460	Dennis B Brewer	734-971-6328
3490	G M Wingo	734-971-6288
3520		NP
3575	C T Larson	734-971-6274
3586	John W Reed	734-971-6280
3610		NP
3612	Mehran Thomson Jr	734-971-6272
3618		NP
3625	Gary M Olson	734-677-2515
3632	Lester Heidamos	734-668-6466
3875	Elizabeth Kaufman	734-971-9412
	Weston E Vivian	734-973-8484
4040	Robert G Delosh	734-973-0314
4063		NP
4088	Mohamad Algalaieni	734-973-2587
4094	Rima Kana	734-677-2948
	Madiha Kanna	734-975-1435
4300	G Chua	734-973-7165
4340	Michael Lee	734-973-2474
4400	Louis Graff	734-971-6918
4479	T Silvennoinen	734-971-5086
4484	Bob Amick	734-971-7777
4500	Rev B Cavin	734-971-6924
4510	Leonard N Felgner	734-971-8725
4701	Orma Metzger	734-971-3161
	48 RESIDENCE	2 BUSINESS

## APPENDIX H

### HISTORIC TOPOGRAPHIC MAPS





**Brokaw Property**

3013 West Huron River Drive  
Ann Arbor, MI 48103

Inquiry Number: 3719601.4  
September 05, 2013

# EDR Historical Topographic Map Report

# EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

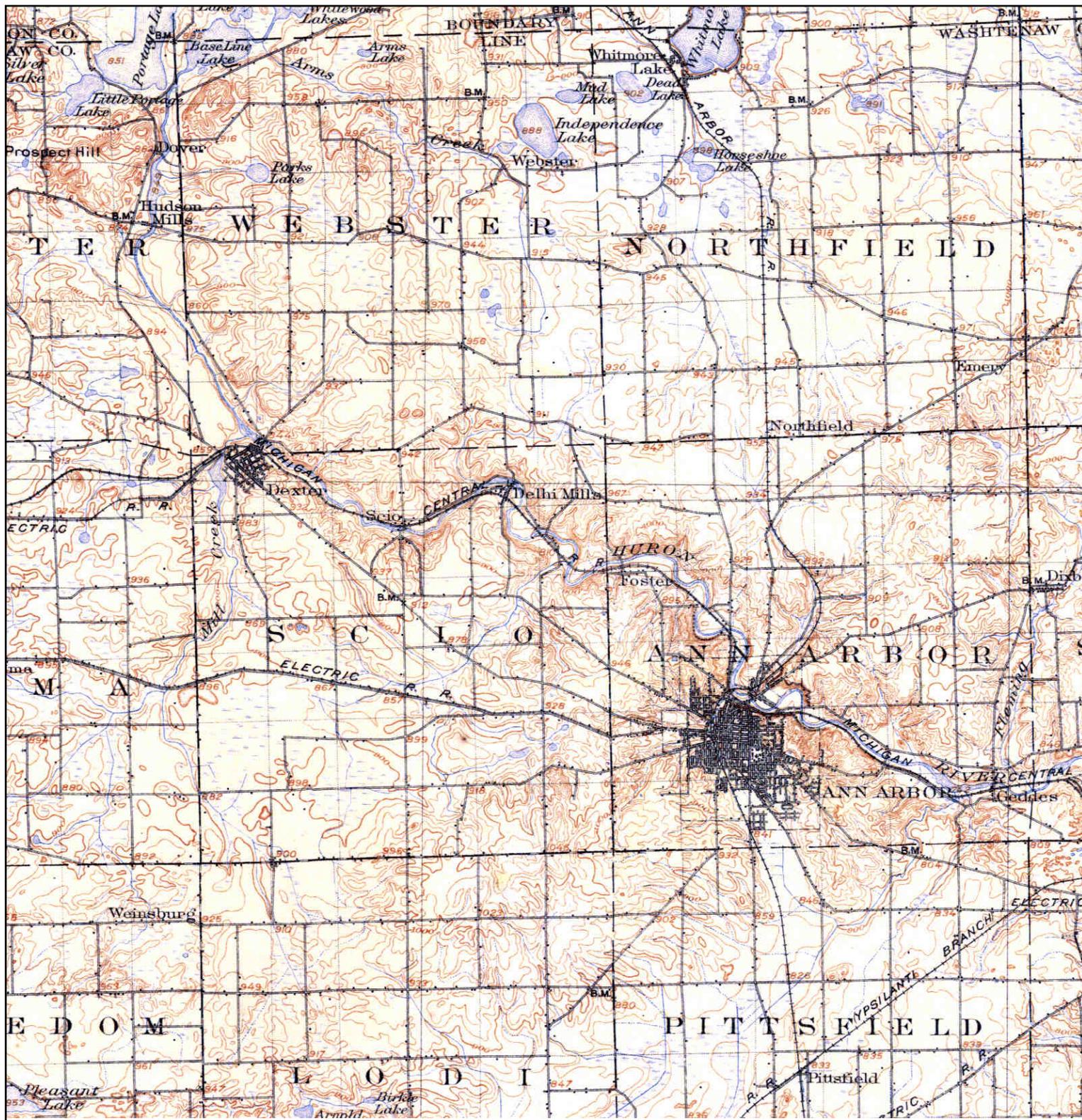
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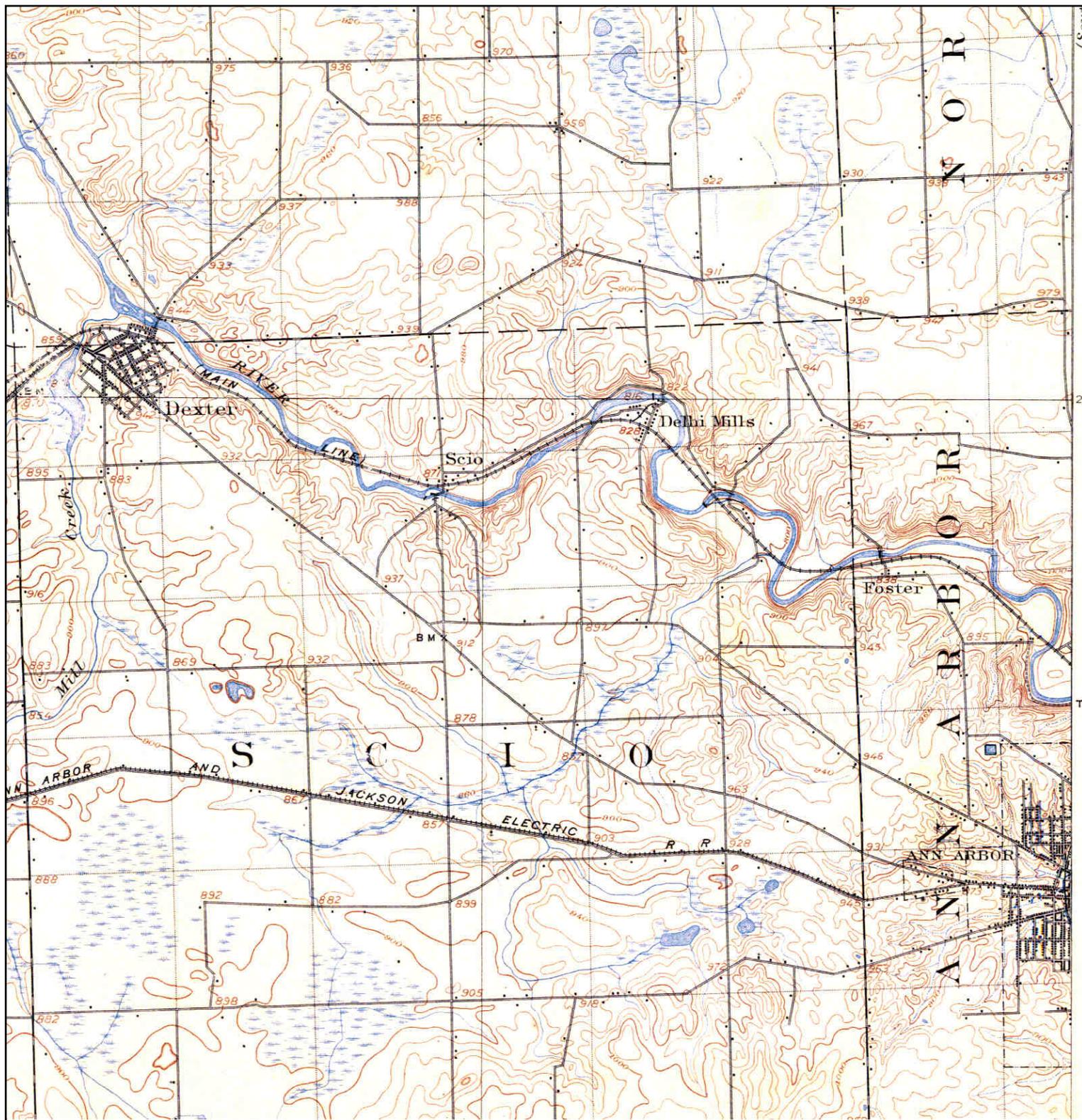
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# Historical Topographic Map



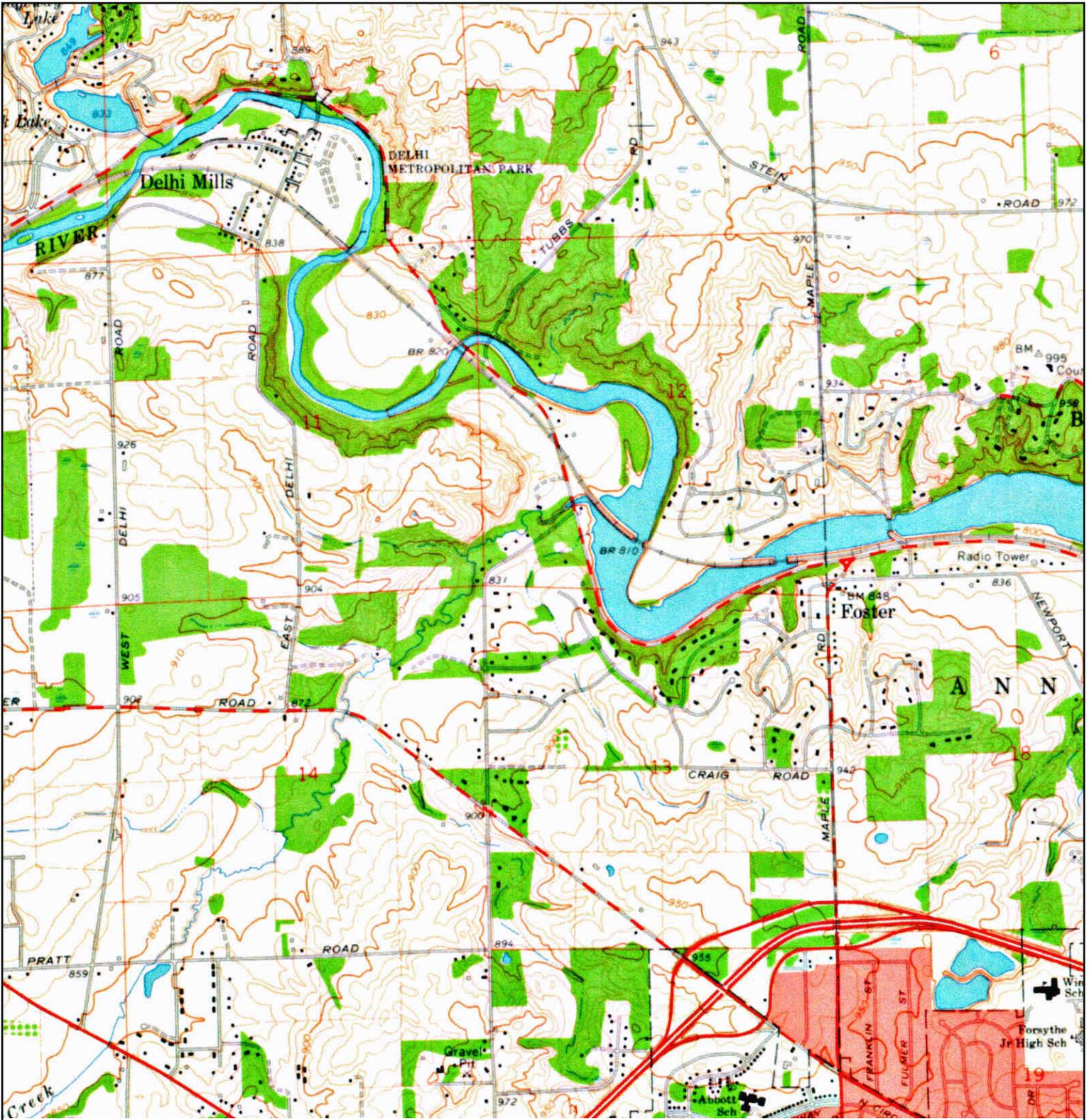
<p>N ↑</p>	<p><b>TARGET QUAD</b>                  NAME: ANN ARBOR                  MAP YEAR: 1904</p>	<p><b>SITE NAME:</b> Brokaw Property  <b>ADDRESS:</b> 3013 West Huron River Drive                  Ann Arbor, MI 48103  <b>LAT/LONG:</b> 42.3156 / -83.7969</p>	<p><b>CLIENT:</b> The Mannik &amp; Smith Group  <b>CONTACT:</b> Ryan Montri  <b>INQUIRY#:</b> 3719601.4  <b>RESEARCH DATE:</b> 09/05/2013</p>
	<p><b>SERIES:</b> 30  <b>SCALE:</b> 1:125000</p>		

# Historical Topographic Map



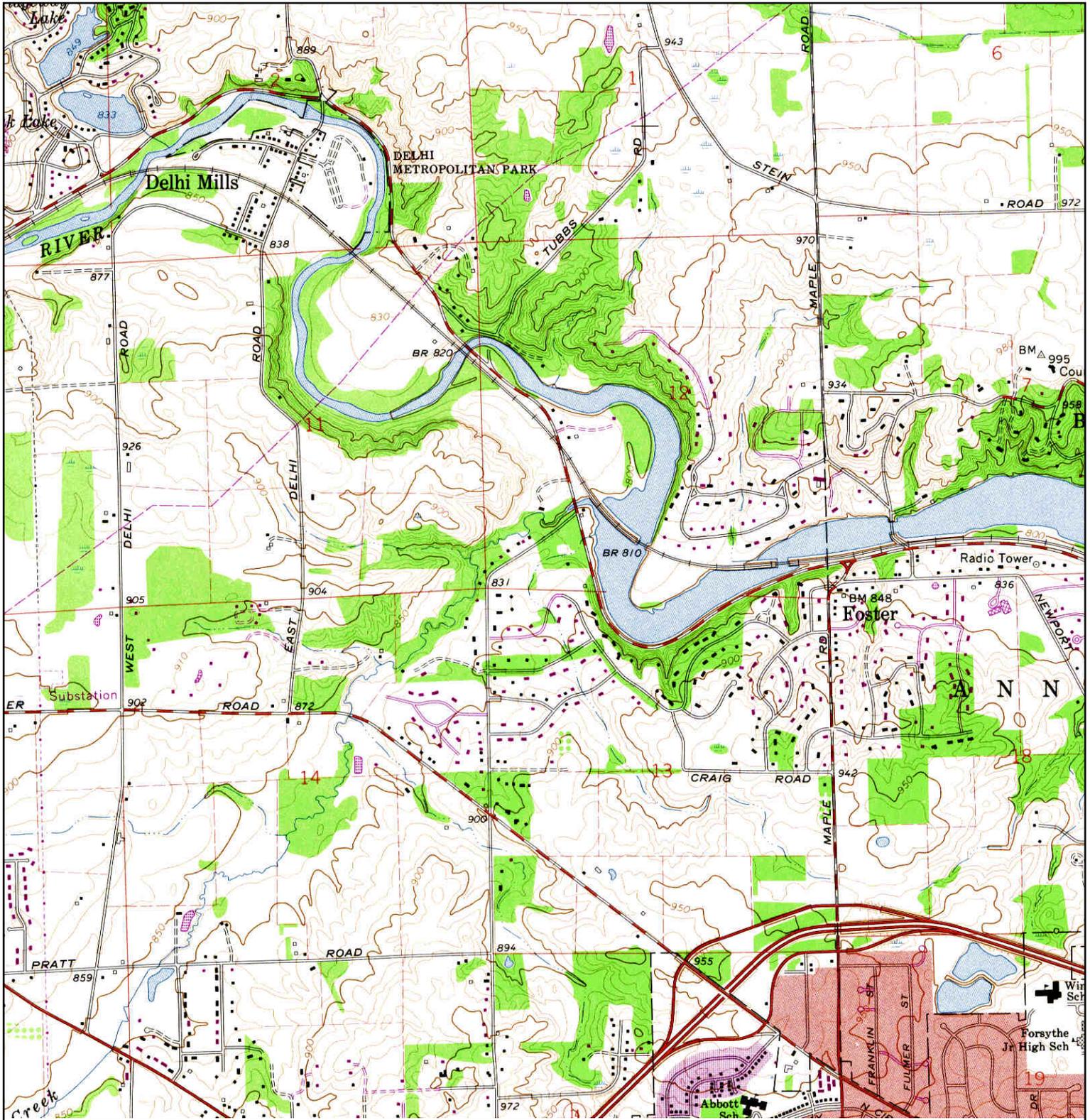
<p>N ↑</p>	<p><b>TARGET QUAD</b>                  NAME: DEXTER                  MAP YEAR: 1906</p>	<p><b>SITE NAME:</b> Brokaw Property  <b>ADDRESS:</b> 3013 West Huron River Drive                  Ann Arbor, MI 48103  <b>LAT/LONG:</b> 42.3156 / -83.7969</p>	<p><b>CLIENT:</b> The Mannik &amp; Smith Group  <b>CONTACT:</b> Ryan Montri  <b>INQUIRY#:</b> 3719601.4  <b>RESEARCH DATE:</b> 09/05/2013</p>
	<p><b>SERIES:</b> 15  <b>SCALE:</b> 1:62500</p>		

# Historical Topographic Map



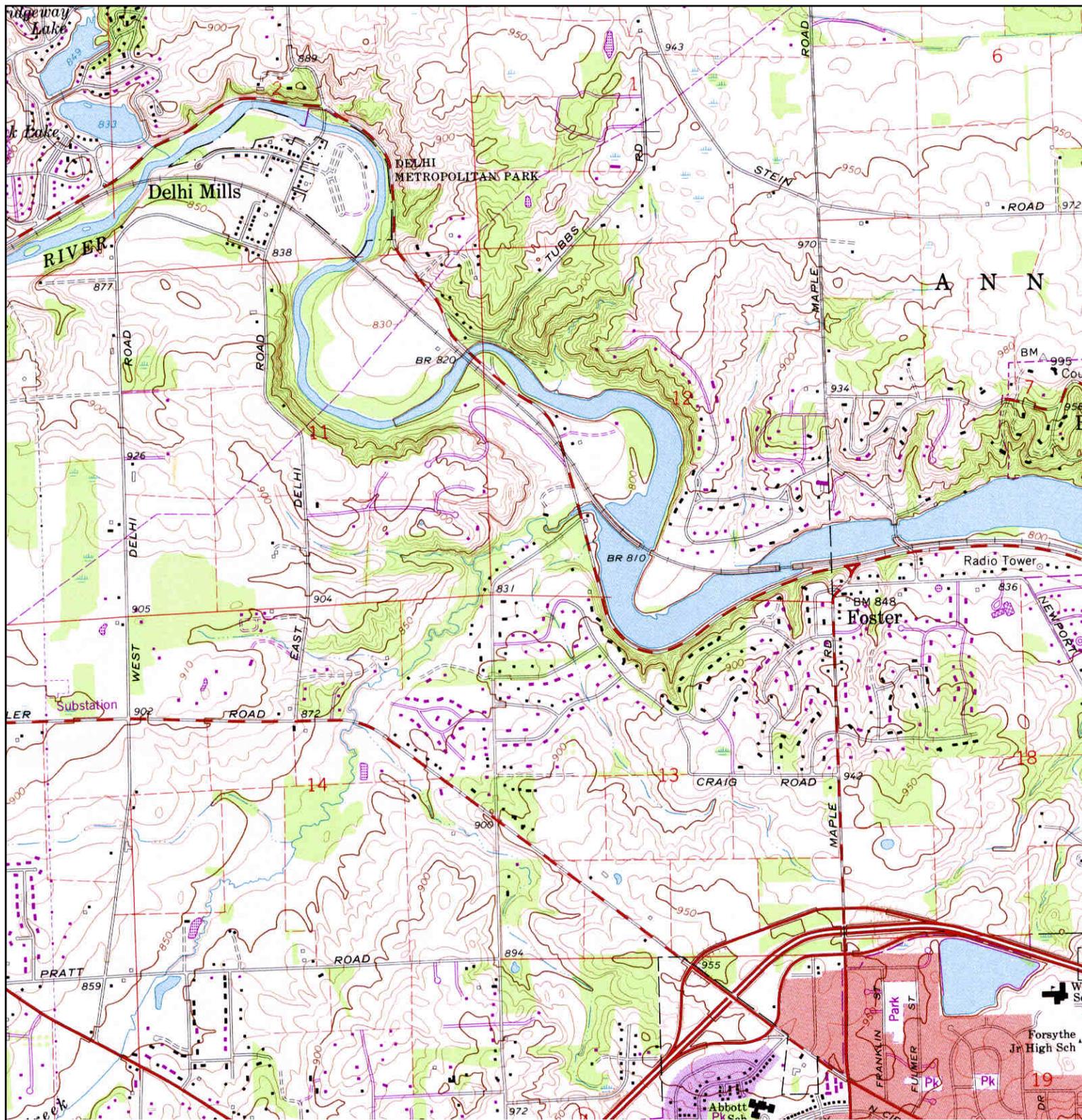
<p>N ↑</p>	<p><b>TARGET QUAD</b>                  NAME: ANN ARBOR WEST                  MAP YEAR: 1965</p>	<p><b>SITE NAME:</b> Brokaw Property  <b>ADDRESS:</b> 3013 West Huron River Drive                  Ann Arbor, MI 48103  <b>LAT/LONG:</b> 42.3156 / -83.7969</p>	<p><b>CLIENT:</b> The Mannik &amp; Smith Group  <b>CONTACT:</b> Ryan Montri  <b>INQUIRY#:</b> 3719601.4  <b>RESEARCH DATE:</b> 09/05/2013</p>
	<p><b>SERIES:</b> 7.5  <b>SCALE:</b> 1:24000</p>		

# Historical Topographic Map



<p>N ↑</p>	<b>TARGET QUAD</b>	<b>SITE NAME:</b> Brokaw Property	<b>CLIENT:</b> The Mannik & Smith Group
	NAME: ANN ARBOR WEST	<b>ADDRESS:</b> 3013 West Huron River Drive	<b>CONTACT:</b> Ryan Montri
	MAP YEAR: 1975	Ann Arbor, MI 48103	<b>INQUIRY#:</b> 3719601.4
	PHOTOREVISED FROM :1965	<b>LAT/LONG:</b> 42.3156 / -83.7969	<b>RESEARCH DATE:</b> 09/05/2013
	SERIES: 7.5		
	SCALE: 1:24000		

# Historical Topographic Map



	<b>TARGET QUAD</b>	<b>SITE NAME:</b> Brokaw Property	<b>CLIENT:</b> The Mannik & Smith Group
	NAME: ANN ARBOR WEST	<b>ADDRESS:</b> 3013 West Huron River Drive	<b>CONTACT:</b> Ryan Montri
	MAP YEAR: 1983	Ann Arbor, MI 48103	<b>INQUIRY#:</b> 3719601.4
	PHOTOREVISED FROM :1965	<b>LAT/LONG:</b> 42.3156 / -83.7969	<b>RESEARCH DATE:</b> 09/05/2013
	SERIES: 7.5		
	SCALE: 1:24000		

Attachment 3

LABORATORY ANALYTICAL REPORT AND CHAIN OF CUSTODY





Monday, December 02, 2013

Fibertec Project Number: 59357  
Project Identification: Brokaw /ANNA0026  
Submittal Date: 11/22/2013

Mr. Walter Bolt  
Mannik & Smith Group, Inc. - Canton  
2365 Haggerty Road South  
Canton, MI 48188

Dear Mr. Bolt,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written in a cursive style.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

---

1914 Holloway Drive  
11766 E. Grand River  
8660 S. Mackinaw Trail

Holt, MI 48842  
Brighton, MI 48116  
Cadillac, MI 49601

T: (517) 699-0345  
T: (810) 220-3300  
T: (231) 775-8368

F: (517) 699-0388  
F: (810) 220-3311  
F: (231) 775-8584



**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-001**

Order: 59357  
 Page: 2 of 11  
 Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-1 (4'-5')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>1</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:40</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 59357-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	13		%	0.1	1.0	11/25/13	MC131125	11/26/13	MC131125	BMG

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 59357-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Acetone	U		µg/kg	1000	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
‡ 2. Acrylonitrile	U		µg/kg	120	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
‡ 3. Benzene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
4. Bromobenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
5. Bromochloromethane	U		µg/kg	120	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
6. Bromodichloromethane	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
7. Bromoform	U		µg/kg	120	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
8. Bromomethane	U		µg/kg	200	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
9. 2-Butanone	U		µg/kg	750	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
10. n-Butylbenzene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
11. sec-Butylbenzene	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
12. tert-Butylbenzene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
13. Carbon Disulfide	U		µg/kg	290	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
14. Carbon Tetrachloride	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
15. Chlorobenzene	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
16. Chloroethane	U		µg/kg	290	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
17. Chloroform	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
18. Chloromethane	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
19. 2-Chlorotoluene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
20. Dibromochloromethane	U		µg/kg	120	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	29	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
22. Dibromomethane	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
27. 1,1-Dichloroethane	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
28. 1,2-Dichloroethane	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
32. 1,2-Dichloropropane	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-001**

Order: 59357  
Page: 3 of 11  
Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-1 (4'-5')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>1</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:40</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 59357-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
33. cis-1,3-Dichloropropene	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
34. trans-1,3-Dichloropropene	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
35. Ethylbenzene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
36. Ethylene Dibromide	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
37. 2-Hexanone	U		µg/kg	2500	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
38. Isopropylbenzene	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
39. Methyl Iodide	U		µg/kg	120	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
40. Methylene Chloride	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
42. MTBE	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
43. Naphthalene	U		µg/kg	330	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
44. n-Propylbenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
45. Styrene	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	120	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
48. Tetrachloroethene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
49. Toluene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
51. 1,1,1-Trichloroethane	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
52. 1,1,2-Trichloroethane	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
53. Trichloroethene	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
54. Trichlorofluoromethane	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
55. 1,2,3-Trichloropropane	U		µg/kg	120	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
‡ 56. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
59. Vinyl Chloride	U		µg/kg	58	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
60. Xylenes	U		µg/kg	150	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 59357-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
2. Acenaphthylene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
3. Anthracene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
4. Benzo(a)anthracene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
5. Benzo(a)pyrene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-001**

Order: 59357  
 Page: 4 of 11  
 Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-1 (4'-5')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>1</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>09:40</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)**

Aliquot ID: 59357-001A

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
9. Chrysene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
11. Fluoranthene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
12. Fluorene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
‡ 14. 2-Methylnaphthalene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
15. Phenanthrene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
16. Pyrene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-002**

Order: 59357  
 Page: 5 of 11  
 Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-2 (4'-5')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>2</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>10:30</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 59357-002A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	8.3		%	0.1	1.0	11/25/13	MC131125	11/26/13	MC131125	BMG

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 59357-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Acetone	U		µg/kg	1000	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
‡ 3. Benzene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
4. Bromobenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
5. Bromochloromethane	U		µg/kg	110	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
6. Bromodichloromethane	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
7. Bromoform	U		µg/kg	110	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
8. Bromomethane	U		µg/kg	200	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
9. 2-Butanone	U		µg/kg	750	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
10. n-Butylbenzene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
11. sec-Butylbenzene	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
12. tert-Butylbenzene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
13. Carbon Disulfide	U		µg/kg	270	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
14. Carbon Tetrachloride	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
15. Chlorobenzene	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
16. Chloroethane	U		µg/kg	270	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
17. Chloroform	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
18. Chloromethane	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
19. 2-Chlorotoluene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
20. Dibromochloromethane	U		µg/kg	110	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	27	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
22. Dibromomethane	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
27. 1,1-Dichloroethane	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
28. 1,2-Dichloroethane	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD
32. 1,2-Dichloropropane	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-002**

Order: 59357  
Page: 6 of 11  
Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-2 (4'-5')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>2</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>10:30</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 59357-002		Matrix: Soil/Solid			
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis			Init.
						P. Date	P. Batch	A. Date	A. Batch		
33. cis-1,3-Dichloropropene	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
34. trans-1,3-Dichloropropene	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
35. Ethylbenzene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
36. Ethylene Dibromide	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
37. 2-Hexanone	U		µg/kg	2500	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
38. Isopropylbenzene	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
39. Methyl Iodide	U		µg/kg	110	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
40. Methylene Chloride	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
42. MTBE	U		µg/kg	250	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
43. Naphthalene	U		µg/kg	330	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
44. n-Propylbenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
45. Styrene	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	110	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
48. Tetrachloroethene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
49. Toluene	U		µg/kg	50	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
51. 1,1,1-Trichloroethane	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
52. 1,1,2-Trichloroethane	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
53. Trichloroethene	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
54. Trichlorofluoromethane	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
55. 1,2,3-Trichloropropane	U		µg/kg	110	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
‡ 56. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
59. Vinyl Chloride	U		µg/kg	55	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	
60. Xylenes	U		µg/kg	150	1.0	11/25/13	V913K25A	11/25/13	V913K25A	CCD	

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 59357-002A		Matrix: Soil/Solid			
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis			Init.
						P. Date	P. Batch	A. Date	A. Batch		
1. Acenaphthene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC	
2. Acenaphthylene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC	
3. Anthracene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC	
4. Benzo(a)anthracene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC	
5. Benzo(a)pyrene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC	

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-002**

Order: 59357  
 Page: 7 of 11  
 Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-2 (4'-5')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>2</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>10:30</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)**

Aliquot ID: **59357-002A**

Matrix: **Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
9. Chrysene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
11. Fluoranthene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
12. Fluorene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
‡ 14. 2-Methylnaphthalene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
15. Phenanthrene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC
16. Pyrene	U		µg/kg	330	1.0	11/27/13	PS13K27C	11/27/13	S713K27A	TMC

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-003**

Order: 59357  
 Page: 8 of 11  
 Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-3 (0'-1')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>3</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>11:15</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59357-003A

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	33		%	0.1	1.0	11/25/13	MC131125	11/26/13	MC131125	BMG

**Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59357-003A

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	9000		µg/kg	100	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
2. Barium	1200000		µg/kg	50000	1000	11/27/13	PT13K27E	12/02/13	T213L02A	JLH
3. Cadmium	3100		µg/kg	50	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
4. Chromium	17000		µg/kg	500	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
5. Copper	160000		µg/kg	1000	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
6. Lead	3900000		µg/kg	5000	1000	11/27/13	PT13K27E	12/02/13	T213L02A	JLH
7. Selenium	680		µg/kg	200	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
8. Silver	190		µg/kg	100	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
9. Zinc	3400000		µg/kg	50000	1000	11/27/13	PT13K27E	12/02/13	T213L02A	JLH

**Mercury by CVAAS (EPA 7471B)**

Aliquot ID: 59357-003A

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		µg/kg	50	9.7	11/26/13	PM13K26A	11/26/13	M613K26A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-004**

Order: 59357  
 Page: 9 of 11  
 Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-4 (4'-5')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>4</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>11:45</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59357-004A

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	5.2		%	0.1	1.0	11/25/13	MC131125	11/26/13	MC131125	BMG

**Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59357-004A

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	2800		µg/kg	100	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
2. Barium	9800		µg/kg	1000	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
3. Cadmium	100		µg/kg	50	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
4. Chromium	3800		µg/kg	500	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
5. Copper	5300		µg/kg	1000	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
6. Lead	3800		µg/kg	1000	20	11/27/13	PT13K27E	12/02/13	T213L02A	JLH
7. Selenium	U		µg/kg	200	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
8. Silver	U		µg/kg	100	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
9. Zinc	18000		µg/kg	1000	20	11/27/13	PT13K27E	12/02/13	T213L02A	JLH

**Mercury by CVAAS (EPA 7471B)**

Aliquot ID: 59357-004A

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		µg/kg	50	9.8	11/26/13	PM13K26A	11/26/13	M613K26A	JLP

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**Analytical Laboratory Report**  
**Laboratory Project Number: 59357**  
**Laboratory Sample Number: 59357-005**

Order: 59357  
 Page: 10 of 11  
 Date: 12/02/13

Client Identification: <b>Mannik &amp; Smith Group, Inc. - Canton</b>	Sample Description: <b>SB-5 (4'-5')</b>	Chain of Custody: <b>107337</b>
Client Project Name: <b>Brokaw</b>	Sample No: <b>5</b>	Collect Date: <b>11/20/13</b>
Client Project No: <b>ANNA0026</b>	Sample Matrix: <b>Soil/Solid</b>	Collect Time: <b>12:20</b>

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Dry Weight Determination (ASTM D 2974-87)**

Aliquot ID: 59357-005A Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	<b>8.2</b>		%	0.1	1.0	11/25/13	MC131125	11/26/13	MC131125	BMG

**Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

Aliquot ID: 59357-005A Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	<b>4400</b>		µg/kg	100	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
2. Barium	<b>13000</b>		µg/kg	1000	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
3. Cadmium	<b>100</b>		µg/kg	50	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
4. Chromium	<b>6100</b>		µg/kg	500	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
5. Copper	<b>6900</b>		µg/kg	1000	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
6. Lead	<b>7000</b>		µg/kg	1000	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
7. Selenium	U		µg/kg	200	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
8. Silver	U		µg/kg	100	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP
9. Zinc	<b>21000</b>		µg/kg	1000	20	11/27/13	PT13K27E	11/27/13	T213K27A	JLP

**Mercury by CVAAS (EPA 7471B)**

Aliquot ID: 59357-005A Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		µg/kg	50	8.4	11/26/13	PM13K26A	11/26/13	M613K26A	JLP

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.
- B:** The analyte was detected in the associated method blank.
- E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J:** The concentration is an estimated value.
- M:** Modified Method
- U:** The analyte was not detected at or above the reporting limit.
- X:** Matrix Interference has resulted in a raised reporting limit or distorted result.
- W:** Results reported on a wet-weight basis.
- \*:** Value reported is outside QA limits

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**Exception Summary:**

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Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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 email: lab@fibertec.us

**Industrial Hygiene Services, Inc.**  
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 Phone: 517 699 0345  
 Fax: 517 699 0382  
 email: asbestos@fibertec.us

**Geoprobe**  
 11766 E. Grand River  
 Brighton, MI 48116  
 Phone: 810 220 3300  
 Fax: 810 220 3311

Chain of Custody #  
**107337**  
 PAGE L of 1

Client Name: <u>The Minnik &amp; Smith Group</u>				MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS										Turnaround		Matrix Code			
Contact Person: <u>Ryan Minto &amp; Walter Bolt</u>							VOC	PVA	10 MI Metals											24 hour RUSH (surcharge applies)	<input type="checkbox"/> Soil	<input type="checkbox"/> GW Ground Water
Project Name/ Number: <u>Brokaw ANNA0026</u>																				48 hour RUSH (surcharge applies)	<input type="checkbox"/> Water	<input type="checkbox"/> SW Surface Water
Purchase Order#																				72 hour RUSH (surcharge applies)	<input type="checkbox"/> Air	<input type="checkbox"/> WW Waste Water
Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor													<input checked="" type="checkbox"/> Standard (5-7 bus. days)	<input type="checkbox"/> Oil	<input type="checkbox"/> X Other: Specify			
	<u>11/20/13</u>	<u>0940</u>		<u>S3-1 (4'-5')</u>	<u>S</u>	<u>2</u>	<u>Y</u>	<u>X</u>	<u>X</u>								Other: Specify	<input type="checkbox"/> Wipe				
		<u>1030</u>		<u>S3-2 (4'-5')</u>	<u>S</u>	<u>2</u>	<u>Y</u>	<u>X</u>	<u>X</u>													
		<u>1115</u>		<u>S3-3 (0'-1')</u>	<u>S</u>	<u>2</u>	<u>Y</u>															
		<u>1145</u>		<u>S3-4 (4'-5')</u>	<u>S</u>	<u>2</u>	<u>Y</u>															
		<u>1220</u>		<u>S3-5 (4'-5')</u>	<u>S</u>	<u>2</u>	<u>Y</u>															
Comments:																						
Relinquished By: <u>Ryan Minto</u>				Date/Time: <u>11/22/13 1600</u>	Received By: <u>M. S. Fridge</u>																	
Relinquished By: <u>Ryan</u>				Date/Time: <u>11/23/13 1025</u>	Received By: <u>[Signature]</u> 11/22/13 10:55																	
Relinquished By: <u>[Signature]</u>				Date/Time: <u>11/22/13 2:58</u>	Received By: <u>[Signature]</u>																	
LAB USE ONLY: Fibertec project number: <b>RCV'D ON ICE</b> Laboratory Tracking: Temperature at Receipt:																						

TERMS & CONDITIONS ON BACK

COC Revision: April, 2006

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59357

**APPENDIX III**  
**FORMS**

**FORM 02080A**

**CERTIFICATE OF WORKER'S ACKNOWLEDGMENT**

I \_\_\_\_\_, **HEREBY ACKNOWLEDGE** that I have voluntarily chosen to participate in work that involves the removal and/or transportation of asbestos-containing materials from the Westinghouse, Boiler House, Plant A, and East Office Buildings located at 1510 East Front Street in Monroe, Monroe County, Michigan.

I am aware that this asbestos work is a hazardous activity that will involve exposure to asbestos, and that exposure to asbestos can cause cancer, lung disease and other illness. I am aware that my employer, \_\_\_\_\_, has taken full responsibility to supply me with proper respiratory protection equipment and other personal protective equipment, training in proper asbestos abatement procedures, and annual medical examinations at no cost to myself. I am also aware that proper safety equipment and training may not prevent me from being harmed by exposure to asbestos.

Date: \_\_\_\_\_

Signature \_\_\_\_\_

Witness' name \_\_\_\_\_

Witness' signature \_\_\_\_\_ Date: \_\_\_\_\_

TRANSLATOR'S ACKNOWLEDGMENT: I certify that I translated this document to the signing employee accurately.

Translator's name: \_\_\_\_\_

Translator's signature: \_\_\_\_\_ Date: \_\_\_\_\_

**FORM 02080B**

**CERTIFICATE OF VISUAL INSPECTION**

Project Name: \_\_\_\_\_

Building Name/Number: \_\_\_\_\_

Work Area Description: \_\_\_\_\_

In accordance with Section 02080, Removal of Asbestos Containing Materials, the CONTRACTOR hereby certifies that he has visually inspected the work area (all surfaces, including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, etc.) and has found no dust, debris or residue.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Print Company Name)

**OWNER'S REPRESENTATIVE CERTIFICATION**

The OWNER'S REPRESENTATIVE hereby certifies that he/she has accompanied the CONTRACTOR on CONTRACTOR's visual inspection and verifies that this inspection has been thorough, and to the best of OWNER'S REPRESENTATIVE's knowledge and belief, the CONTRACTOR's Certification above is a true and honest one.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Print Company Name)

**FORM 02080C**

**POST-ABATEMENT FINAL INSPECTION/AIR SAMPLING FORM**

**CLIENT:** \_\_\_\_\_

**PROJECT:** \_\_\_\_\_

**LOCATION:** \_\_\_\_\_

**TYPES OF ACM:** \_\_\_\_\_

<b>INSPECTION CHECKLIST</b>						
Yes / No	The asbestos abatement Contractor was present during the visual inspection.					
Yes / No	A written detailed scope of work or written specification was provided prior to the inspection to verify all required asbestos-containing materials were removed.					
Yes / No	All materials and equipment were properly removed from the work area according to the scope of work or written specification.					
Yes / No	Plastic sheeting present in the work area was wet wiped to remove visible debris.					
Yes / No	All surfaces, materials, and equipment not covered with plastic sheeting in the work area were wet wiped to remove visible debris.					
Yes / No	Decontamination units were wet wiped to remove visible debris and waste was properly filtered or bagged.					
<b>Signature of Inspector:</b> _____			<b>Date:</b> _____			
<b>Printed Name:</b> _____			<b>Time:</b> _____			
<b>Certification State and No:</b> _____						
<b>ENCAPSULATION AND CLEARANCE AIR MONITORING CHECKLIST</b>						
Yes / No	Lock down encapsulant was applied to all specified surfaces.					
Yes / No	Clearance air sampling was specified or required for this work.					
PCM / TEM	Type of clearance air samples collected. <ul style="list-style-type: none"> <li>• If PCM, minimum of 3 samples required per work area; area clear if all samples results less than or equal to 0.01 fibers per cubic centimeter (f/cc).</li> <li>• If TEM, 5 inside work area samples required; area clear if average is less than or equal to 70 structures per square millimeter (s/mm<sup>2</sup>).</li> </ul> Other criteria? Explain _____					
<b>Sample No.:</b>	_____	_____	_____	_____	_____	_____
<b>PCM Result:</b>	1)_____	2)_____	3)_____	4)_____	5)_____	6)_____
<b>TEM Result:</b>	1)_____	2)_____	3)_____	4)_____	5)_____	6)_____
<b>Comments:</b>	_____					
<b>Signature of Inspector:</b> _____			<b>Date:</b> _____			
<b>Printed Name:</b> _____			<b>Time:</b> _____			
<b>Certification State and No:</b> _____						

**FORM 02080**

**CERTIFICATE OF COMPLETION**

Project Name: \_\_\_\_\_

Building Name/Number: \_\_\_\_\_

I, the undersigned, certify that the asbestos removal portion of the work which occurred on \_\_\_\_\_ (Date(s)) has been performed according to Federal, state and local regulations, "state-of-the-art" technologies, and in accordance with specifications and drawings for this project.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Print Company Name)

**OWNER'S REPRESENTATIVE CERTIFICATION**

The OWNER'S REPRESENTATIVE hereby certifies that he/she has inspected the CONTRACTOR's work and verifies that the work has been performed in accordance with the above-referenced documents, and to the best of OWNER'S REPRESENTATIVE's knowledge and belief, the CONTRACTOR's Certification above is a true and honest one.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name) (Print Title)

\_\_\_\_\_  
(Print Company Name)