



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
JACKSON DISTRICT OFFICE



STEVEN E. CHESTER  
DIRECTOR

April 18, 2006

VIA E-MAIL & US MAIL

Mr. Farsad Fotouhi  
Environmental Manager  
Pall Life Sciences, Inc.  
600 South Wagner Road  
Ann Arbor, MI 48103-9019

Mr. Alan D. Wasserman  
Williams Acosta, PLLC  
2430 First National Bank  
Building  
Detroit, MI 48226-3535

Mr. Michael L. Caldwell  
Zausmer, Kaufman,  
August & Caldwell, P.C.  
31700 Middlebelt Road,  
Suite 150  
Farmington Hills, MI 48334

Dear Sirs:

SUBJECT: Gelman Sciences, Inc. Remedial Action  
Report on Prohibition Zone Well Identification Plan, dated February 28, 2006

We have reviewed the above referenced report, submitted by Mr. Wasserman by electronic mail on February 28, 2006. We did not receive a hard copy of this report. We have also reviewed the associated survey tools, provided by Mr. Fotouhi by electronic mail on February 21, 2006. This letter provides our conditional approval of the report and survey materials.

There were two apparent omissions from the report: 1) On page 2, the paragraph under the sub-title "Western PZ", refers to Table 5. There was no Table 5 in the submittal, although two of these locations are listed in Table 1. Please submit this table. 2) On page 3, the end of the paragraph sub-titled "Westover" is not a complete sentence. Our review is based on the report as submitted. Please provide us with the complete text so we can determine if it contains information that would affect our review.

On page 2, the first paragraph under "Eastern PZ Township Islands" indicates that Sections 19, 20, 28, 29, and 30 of Ann Arbor Township were included for this review. A small part of the southeast corner of Section 21 of Ann Arbor Township is also in the Prohibition Zone (PZ). Please verify that this area has been reviewed.

As we informed PLS in an e-mail dated April 5, 2006, the preliminary result from MW-101 (north of the intersection of Maple and Dexter roads) indicates that the Prohibition Zone (PZ) in this area must be expanded. We have agreed to postpone the decision on relocating the PZ boundary until after new maps can be generated, based on data to be collected this month from new and existing monitoring wells in the area. Pall Life Sciences' (PLS) preliminary interpretation of the extent of groundwater contamination (85 parts per billion - ppb) in this area shows it to be immediately inside of the PZ. As we have explained, a buffer area is necessary between the PZ boundary and the 85 ppb isoconcentration contour line in order to ensure that the PZ is protective. The attached Figure 1 shows the PZ established by the May 17, 2005 Order Prohibiting Groundwater Use (Order) and the proposed minimum area of expansion, based on the preliminary data. This area should immediately be incorporated into the Well Identification Work Plan.

Wagner Road Connections

On page 1, the last paragraph states that the wells formerly servicing homes on Wagner Road have been converted to sampling locations. The text at the bottom of page 2 indicates that

these homes have already been connected to the municipal water supply and the wells plugged, as does Table 1. The Department of Environmental Quality (DEQ) has not requested that these wells be retained for sampling, nor has PLS requested an exception as allowed for by paragraph 5(a) of the May 17, 2005 Order. Please clarify the status of these wells. If PLS believes these wells should be added to the monitoring schedule, a request for an exception, including the basis for the request, should be provided to the DEQ by May 31, 2006.

### Reporting

PLS has indicated that it will supplement this report within 60 days to provide any additional information it has received in response to requests to local units of government. Item 5 on page 4 indicates that city ordinances previously required that the utilities department be notified of any secondary water supplies, which would have included private water supply wells. Please verify in the next report that you have requested any such records, and include any response to that request.

Tables 1 and 3 of the report indicate that well plugging records have been found for some addresses. Any well plugging records found for wells within the PZ should be submitted with the next report, to be supplemented if additional well plugging records are found as a result of the surveys or other information gathering.

As requested in our August 12, 2005 letter, any wells identified within the PZ should be sampled and analyzed for 1,4-dioxane. Please provide the results of this sampling in the next report for any wells identified thus far. Sampling results from wells identified later should be submitted in subsequent reports.

We may request copies of some of the maps PLS has located or produced as a part of this effort, if these are needed as part of our review. Please consider including pertinent maps as part of future reporting.

### Task 2

The report provides a chronology of the development of the city and the availability of municipal water. Many subdivisions are named; however, no maps were provided. The premise of the submittal is that subdivisions were provided with water at the time of development. We generally agree with that approach. Our review indicates that some areas within the PZ were not developed as part of subdivisions, and this increases the likelihood that private water supply wells may have been installed in these areas, if municipal water was not readily available. To cover this concern generally, PLS should plot the subdivisions, with names, over the PZ map. The remaining areas should then be reviewed in more detail to determine if developed areas need to be surveyed.

### Penncraft Court and Arborview Boulevard

One area, between Dexter Road and Arborview Boulevard, and west of the homes on Doty Street, does not appear to have been developed as part of any subdivisions. This includes six large lots on Penncraft Court (2000, 2003, 2005, 2010, 2020, and 2021), some of which are now depicted as being in the plume area. Five of these houses were built in 1941 (before the 1945 ordinance requiring hook-up to municipal water, if available) and one in 1953, according to a city web site. Immediately north are six homes on Arborview (2015, 2101, 2107, 2111, 2113, and 2115) that also do not appear to be part of a subdivision. The home at 2107 was built in 1992; the rest were built in the 1950s. PLS does plan to survey 2101 Arborview, but none of the

others are mentioned. These 11 addresses should be added to the survey unless PLS can verify that they were connected to municipal water when developed.

Comments on Specific Addresses

PLS has indicated that it will survey a few addresses where the existence of wells has already been confirmed. This is acceptable, in case there might be additional wells; however, the steps outlined in our August 12, 2005 letter should be implemented for wells identified to date. Most importantly, the process for connecting 2340 Dexter Road to municipal water must begin immediately. Our letter, dated January 10, 2006, directed PLS to begin this process, and to sample the well quarterly until the connection is completed. To our knowledge, this process has not been initiated. Further delay is unacceptable as groundwater below where this well is screened is known to be contaminated.

Our comments on specific addresses, including those that need to be added to the survey, are included in Table 1.

**Table 1**  
**DEQ Comments on Specific Addresses**

<b>Address</b>	<b>Action</b>	<b>Comment</b>
2015, 2107, 2111, 2113, and 2115 Arborview Blvd.	add to survey	possibility of former water supply wells
2340 Dexter Road	connect & plug	water supply well currently in use
3432 Ferry	add to survey	sampled by state in 1986 and by PLS in August 2001
2801 Jackson	request exception or plug well	Bethlehem Cemetery irrigation well
3050 Jackson Road	plug well	Weber's Inn irrigation and cooling well
3365 Jackson Road	request exception	PLS uses as a monitoring well
3395 Jackson Road	add to survey	sampled by state in 1986
3480 Jackson Road	plug well	Varsity Ford irrigation well
960 Newport	request exception by July 2006 or plug well	private irrigation well
2000, 2003, 2005, 2010, 2020, and 2021 Penncraft Court	add to survey	possibility of former water supply wells
597, 603, 609, and 679 S. Wagner Road	request exceptions or provide documentation of well abandonment; provide water sample results if available	already connected to municipal water by PLS
685 and 697 S. Wagner Road	continue efforts to connect to municipal water	these wells must be connected to municipal water

Itemized Steps for Well Identification

We have summarized the steps in the well identification process to incorporate all of the comments we have made to PLS submittals on this matter. If information becomes available in the future that indicates the existence of other wells, the same steps must be followed.

1. identify addresses in the PZ where municipal water may not have been provided when first developed
2. survey addresses
3. obtain consent to access property where wells are found
4. collect samples and analyze for 1,4-dioxane where wells are found
5. request exception if appropriate
6. provide connection to municipal water for any water supply wells in use
7. plug any wells identified
8. report steps taken at each survey address to DEQ and supply documentation of well abandonment for each water supply well within the PZ where such documentation exists

#### Consent form

PLS did not indicate that it intended to use a different form from the proposed example that was included with our August 12, 2005 response to the Work Plan for Well Identification. Based on our discussions with property owners along Wagner Road, it appears that PLS did use a different form. PLS should provide us with the form it presented to the property owners on Wagner Road who have been connected to municipal water, along with any significant changes made to the contracts that were executed, and the form that will be provided to other property owners where wells have been identified, if any changes have been made. Please provide us with these forms by May 1, 2006.

#### Survey Materials

Please see Attachments A, B, and C for our comments on the survey tools provided by Mr. Farsad Fotouhi on February 21, 2006. These comments should be incorporated into the survey materials. If an in-person survey is done before the cover letter is mailed, similar written materials should be provided at the time of the survey.

The survey of properties may begin, as modified by this response. Upon our review of future reporting on this subject, we may request that additional addresses be added to the survey. Please contact me if you have any questions.

Sincerely,

Sybil Kolon  
Environmental Quality Analyst  
Gelman Sciences Project Coordinator  
Remediation and Redevelopment Division  
517-780-7937

SK/KJ

Attachments

cc: Mr. Robert Reichel, Department of Attorney General  
Ms. Celeste Gill, Department of Attorney General  
Mr. Mitchell Adelman, DEQ/Gelman File  
Mr. James Cogger, DEQ

# Gelman Sciences Inc. Prohibition Zone Boundary

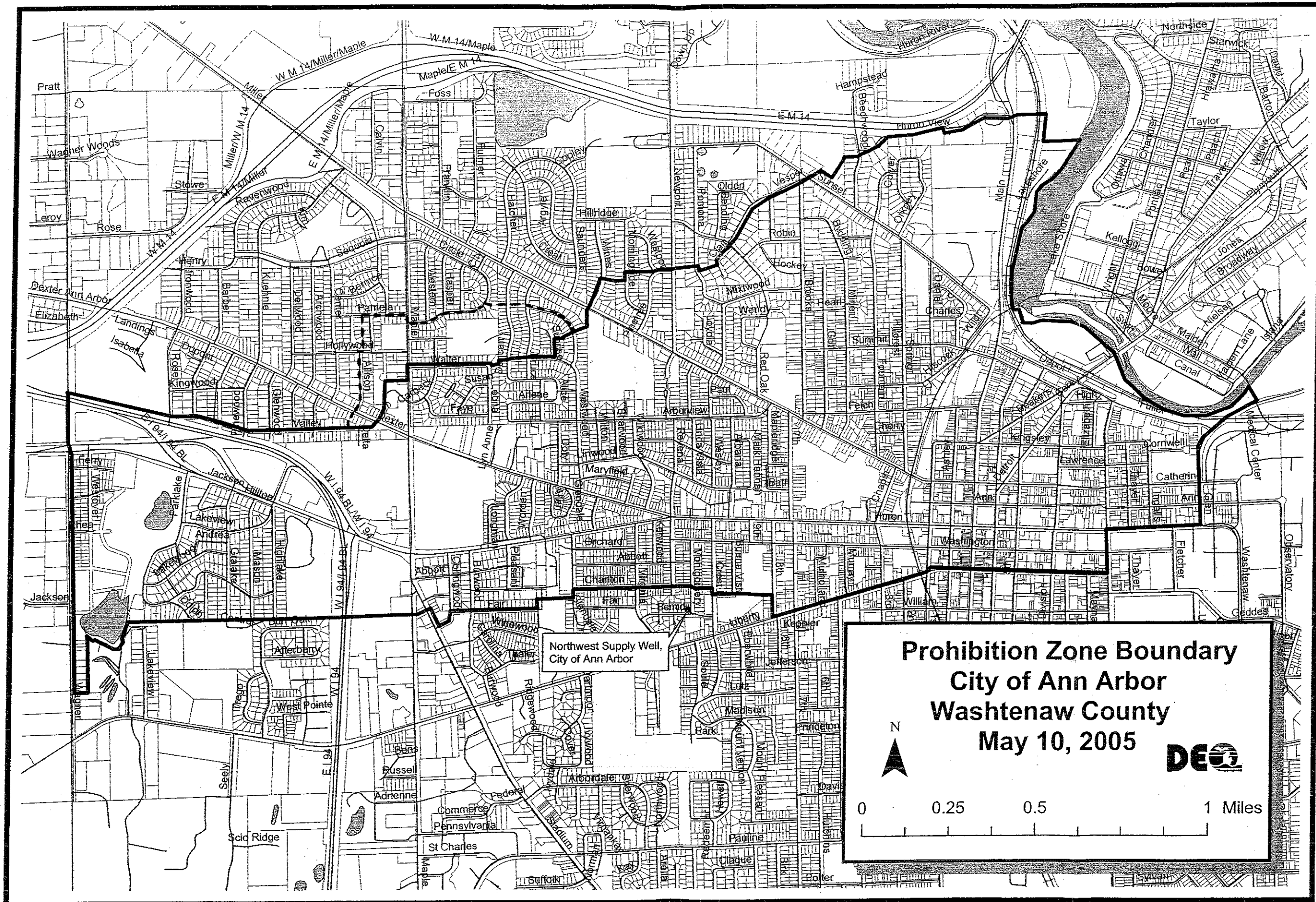


FIGURE 1  
PROPOSED EXPANSION  
4/18/06

Dear Resident:

I am writing you on behalf of Pall Life Sciences (formerly known as Gelman Sciences) (“PLS”) to ask you to participate in a survey that PLS is undertaking in connection with its groundwater cleanup project.

As you may know, the Washtenaw County Circuit Court Judge who is supervising PLS’ cleanup efforts has issued an order establishing an area within the City of Ann Arbor where it is illegal to withdraw or otherwise use the groundwater. A copy of that order and map is attached. Your property is located within the well “Prohibition Zone” established by the order. The Prohibition Zone is broad enough to include a significant buffer zone, so the fact that your property is located within this zone does not mean that there is contaminated groundwater under your property. It does mean that use of wells on your property to withdraw groundwater is prohibited.

PLS is currently undertaking an investigation to determine where the groundwater contamination will migrate, to verify that the area of the Prohibition Zone is protective of public health. Our research indicates that the entire Prohibition Zone is served by the City of Ann Arbor’s municipal water supply, and that few, if any, wells are being used for water supply. However, it is important that any wells within the Prohibition Zone be identified and properly addressed, to ensure that people will not be exposed to contaminated groundwater, now or in the future. Even old wells that are no longer in use, must be identified, so they may be properly plugged to prevent future use.

The Michigan Department of Environmental Quality (“MDEQ”) has asked PLS to conduct a survey of certain properties within the zone established by the court’s order to identify the existence of any wells that could be used to withdraw water, whether they are in operation or not. This includes not only drinking water wells, but also wells used for irrigation, heat pumps or other purposes. The properties being surveyed are those where it could not be verified that connection to the city water supply was provided at the time of construction. If you have knowledge of any other private water supplies in this area we request that you also provide us with that information, as well as the names, and contact information if available, of others who may have such knowledge.

Please return the attached survey form to PLS in the self-addressed envelope provided. If you have any questions, please feel free to contact either PLS or the MDEQ:

Sybil Kolon  
Michigan Department of Environmental Quality  
301 E. Louis Glick Hwy.  
Jackson, MI 49201  
517-780-7937

[kolons@michigan.gov](mailto:kolons@michigan.gov)

Farsad Fotouhi  
Pall Life Sciences  
600 S. Wagner Road  
Ann Arbor, MI 48106

Thank you for your assistance with this important aspect of the cleanup project.

Farsad Fotouhi

**Well Identification Survey**

Property Address: \_\_\_\_\_

Property Owner Name: \_\_\_\_\_

Property Occupant Name: \_\_\_\_\_

How long have you lived here? \_\_\_\_\_

If you know, when was the house/building built? \_\_\_\_\_

If you know, was house/building hooked to city water when built? \_\_\_\_\_

Do you know of others who may have more information about wells at this address or others in the area? \_\_\_\_\_ If so, list name(s) and any contact information

\_\_\_\_\_

To the best of your knowledge, are there any water supply wells on your property that are currently used for any of the following purposes:

- Drinking Water Supply
- Irrigation
- As part of a heat pump system
- Other

If you've checked any of the above boxes, please generally describe where each such well is located on the property and the frequency each well is used.

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

To the best of your knowledge, are there any water supply wells on your property that are no longer in use? \_\_\_\_\_ YES \_\_\_\_\_ NO

If so, please describe generally where each such well is located, whether it is still usable, and the last time the well was used.

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



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For each out-of-service groundwater extraction wells that is present on your property, please describe what steps, if any, were taken to abandon the well and provide copies of any documentation available, such as well abandonment logs.

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## Documentation of Well Search

Property Address: \_\_\_\_\_

Property Owner Name: \_\_\_\_\_

Property Occupant Name: \_\_\_\_\_

Person Doing Inspection/Interview (Inspector): \_\_\_\_\_

Date and Time of Inspection/Interview: \_\_\_\_\_

Please check the following that apply:

- Nobody at home, left contact information for inspector
- Inspector interviewed property owner/occupant regarding well(s) on the subject property
- Inspector did a physical inspection of the property looking for well(s)
- Inspector did both an interview of the property owner/occupant and a physical inspection

### Findings from Interview

How long has the person/family lived there? \_\_\_\_\_

If they know, when was the house/building built? \_\_\_\_\_

If they know, was house/building hooked to city water when built? \_\_\_\_\_

- Owner/Occupant has no knowledge of well(s) on property
- Owner/Occupant is aware of former well(s) on property, indicates wells were properly abandoned
- Owner/Occupant is aware of former well(s) on property, indicates it has not been abandoned or he/she does not know if wells were properly abandoned

- Owner/Occupant is aware of current well(s) on property, well(s) are being used for (describe well(s) use including frequency of use):\_\_\_\_\_

Are there others who may have more information about wells at this address or others in the area? \_\_\_\_\_

If so, list name(s) and any contact information \_\_\_\_\_  
\_\_\_\_\_

### Findings from Inspection

Describe areas searched:\_\_\_\_\_

- No indication of well(s) on property
- Indication of properly abandoned well(s) on property (provide documentation or other information to support this finding)
- Indication of well(s) on property, well(s) being used for:\_\_\_\_\_

Describe characteristics of well(s) (location, well diameter, accessibility, other):\_\_\_\_\_

GPS coordinates for well(s):\_\_\_\_\_

Site Sketch Map:

Photo Documentation:

Notes: