



**QUALITY ASSURANCE
PROJECT PLAN:
ASBESTOS AND LEAD-
BASED PAINT SURVEY
REVISION 1**

**Newton County Health
Unit & Nursing Home**
Jasper, Arkansas

Client:

Arkansas Department of Energy and Environment
Division of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118
Phone: 501-683-0028
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Brownfield & Site Assessment Inspector
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March 2023



ARKANSAS
ENERGY & ENVIRONMENT

Prepared by:
Harbor Environmental and Safety
5800 Evergreen Drive
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Engineering | Compliance | Sustainability

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Quality Assurance Project Plan – Revision 1
Asbestos and Lead Paint Survey
Newton County Health Unit & Nursing Home

Prepared by:
Harbor



Date: 3/13/2023

Caleb Gourley, Harbor, Project Manager



Date: 3/13/2023

Lisa Rotenberry, Quality Assurance Manager



Date: 3/13/2023

Thomas Huetter, P.G., Harbor, Senior Project Manager



Date: 3/15/2023

Jonathan Burns, DEQ, Brownfield & Site Assessment Inspector



Date: 03/15/2023

Elizabeth Reyes, Project Officer, US EPA Region 6

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1.0 Project Management

1.1 Distribution List

Harbor Environmental and Safety (Harbor) has prepared this Quality Assurance Project Plan (QAPP) to outline the procedures used to ensure that the data is collected and analyzed to meet project requirements. Table 1-1 below lists the individuals who will receive a copy of the approved QAPP, either in hard copy or electronic format, as well as any subsequent revisions:

Table 1-1 – Distribution List

Name	Title	Organization	Phone	Email
Elizabeth Reyes	Project Officer	US EPA Region 6	214-665-3163	reyes.elizabeth@epa.gov
Jonathan Burns	Brownfields & Site Assessment Inspector	DEQ	501-683-0028	jonathan.d.burns@adeq.state.ar.us
Thomas Huetter, P.G.	Senior Project Manager	Harbor	501-663-8800	thuetter@harborenv.com
Lisa Rotenberry	Quality Assurance Manager	Harbor	501-663-8800	lisa.rotenberry@harborenv.com
Caleb Gourley	Project Manager	Harbor	501-663-8800	cgourley@harborenv.com
Norma James	Analytical Laboratory	Arkansas Analytical, Inc.	501-455-3233	njames@arkansasanalytical.com

1.2 Project/Task Organization

The successful completion of the proposed activities will rely upon the efforts of the following personnel/companies (see Appendix A - Organization Chart):

- Elizabeth Reyes, Project Officer, United States Environmental Protection Agency (EPA) Region 6 will approve the QAPP.
- Jonathan Burns, Brownfields & Site Assessment Inspector, Arkansas Department of Energy and Environment Division of Environmental Quality (DEQ) will review the QAPP.
- Thomas Huetter, P.G., Harbor Senior Project Manager, will prepare and submit the QAPP and be the primary liaison with DEQ.
- Caleb Gourley, Harbor Project Manager and DEQ-certified Asbestos Inspector, will, be responsible for implementing the approved final QAPP. Mr. Gourley will also be responsible for conducting the Phase I Environmental Site Assessment and preparing the report.
- Lisa Rotenberry, Harbor Quality Assurance Manager, will conduct internal reviews of the QAPP and report and will perform quality assurance reviews on the laboratory data.

- Arkansas Analytical, Inc. (AAI), an Arkansas-certified analytical laboratory, will conduct the required analyses of the lead-based paint samples.
- EMSL Analytical, Inc., a NVLAP-certified analytical laboratory, will conduct the required analyses of the asbestos samples.

1.3 Stop-Work Authority

Safe completion of the project is a top priority. As such, all workers involved in the project have the responsibility and authority to **stop work** when an unsafe condition or act could result in an undesirable event, such as death, injury, property damage, or environmental impact. No negative retribution shall occur as a result of stopping work. Work will not be resumed until the unsafe conditions have been corrected.

1.4 Subject Property Background

Harbor has been contracted by the Arkansas Department of Energy and Environment, Division of Environmental Quality (DEQ) Brownfield Program to conduct a Phase I Environmental Site Assessment (ESA) with sampling for asbestos and lead-based paint (LBP) at the Newton County Health Unit located at 504 W. Court Street and the adjacent old nursing home located at 506 W. Court Street in Jasper, Newton County, Arkansas (subject property). An asbestos survey of the old nursing home was conducted in 2022, so this building is excluded from asbestos sampling, but will be evaluated for the presence of LBP.

The Northwest Arkansas Economic Development District (NAEDD) has applied to the DEQ Brownfield Program for funding to conduct assessment activities at the two referenced properties and buildings prior to building renovation or potential demolition.

The Newton County Health Unit was dedicated in 1991 and is currently in use for that purpose. The old nursing home was a hospital, then a nursing home, and currently is in partial use as office space. The age of the old nursing home is unknown. A current occupant of the old nursing home building indicated that an asbestos inspection was conducted around 2015 which documented asbestos in pipe insulation in the ceiling. A copy of this report was not available for review; however, DEQ did provide Harbor a copy of an asbestos survey that was conducted on the nursing home building in 2022 for review.

The asbestos and LBP survey and Phase I ESA are being funded by the DEQ Brownfields Program, which received a grant from the EPA for assessment of Brownfield sites in Arkansas.

1.5 Asbestos and LBP Survey

Harbor will conduct an asbestos and LBP survey to evaluate the presence of asbestos-containing materials (ACM) and LBP. The survey will be conducted in accordance with DEQ and National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements. Harbor is a DEQ licensed asbestos consultant (No. 000477).

1.6 Data Quality Objectives and Criteria

1.6.1 *Asbestos Sampling*

Federal and state regulatory agencies define an ACM as any building material that contains greater than 1% asbestos. The presence and percentage of asbestos can only be determined by laboratory analysis. Asbestos samples will be sent to EMSL Analytical, Inc. (EMSL) in Houston, Texas. EMSL participates in the National Institutes for Standards and Testing (NIST) National Voluntary Laboratory Accreditation Program proficiency testing program (NVLAP# 300159). Samples will be analyzed by Polarized Light Microscopy (PLM) by EPA method 600/R/R-93/116. All percentages reported for composition will be based on visual estimation or gravimetric determinations. Harbor inspectors will collect quality assurance samples for blind analysis by the laboratory. Samples will be labelled in a manner where the lab cannot differentiate the duplicated sample (i.e., QA-1).

1.6.2 *LBP Sampling*

The LBP inspection will be conducted to evaluate the presence of LBP that could expose workers during the demolition activities. Samples of chipped paint will be collected where available and placed in an appropriate laboratory supplied container, logged on a chain-of-custody, and secured for transport to AAI in Little Rock, AR for lead analysis in accordance with EPA method 6010. A diagram with room identifiers and room numbers will be included for reference.

1.7 Training and Certifications

Training and certifications required for this project are listed in Table 1-2 below. Applicable supporting documentation has been included in Appendix B.

Table 1-2 – Special Personnel Training or Certification

Specialized Training/Certification	Training/Certification Provider	Training/Certification Date	Personnel Receiving Training/Organizational Affiliation	Location of Records & Certificates
Asbestos Consultant	DEQ Certification	March 2022	Harbor	Appendix B
Asbestos Inspector	DEQ Certification	August 2022	Caleb Gourley	Appendix B
Analytical Laboratory	DEQ Certification	October 2022	Arkansas Analytical Laboratories, Inc.	Appendix B

1.8 Documents and Records

The results of the asbestos and LBP survey will be provided in a report, the first draft of which is anticipated to be made available within fifteen business days after receipt of the laboratory results for the field sampling event. Once complete, the draft version of the report will be provided to the client contact, Mr. Jonathan Burns. The package will include the report with tables, sample location map(s), photos, and laboratory data in PDF format. Subsequent iterations of the report will also be provided in PDF format, and a revision number will be clearly indicated. Laboratory data in Microsoft Excel format will be available upon request.

1.9 Site-Specific Health and Safety Plan

A site-specific Health and Safety Plan (HASP) has also been prepared to provide site workers with the specific job site health and safety hazards that might be encountered during the investigation. The HASP is included in Appendix C of this report.

2.0 Data Generation and Acquisition

2.1 Sampling Process Design

2.1.1 Asbestos Sampling

The asbestos inspection procedures will follow the USEPA Asbestos Hazard Emergency Response Act (AHERA) or 40 Code of Federal Regulations (CFR) Part 763. Homogeneous areas will be identified based on date of installation or renovation and functional use. Suspect materials within each area will be categorized as surfacing, thermal system insulation, and miscellaneous. Each material will be sampled according to the AHERA protocol based on type of material and size of homogeneous area. Homogeneous materials are those building materials that, by visual and manual inspection, are similar in texture, color, composition, and use in the building. The condition of each suspect material will be assessed in the field by the inspector, and classified as good, damaged, or significantly damaged. After assessing type, friability and condition, asbestos samples will be collected based on material type and in accordance with the following:

Friable Surfacing Material	Thermal System Insulation	Miscellaneous
≤ 1,000 square feet – three samples minimum per homogeneous area	Minimum of three samples per homogeneous area	Minimum of two per homogeneous area
1,000 - 5,000 square feet – five samples minimum per homogeneous area	Patch or area <6 linear feet – at least one sample	As many samples as deemed necessary
> 5,000 square feet – seven samples minimum per homogeneous area		

The client will be informed of any inaccessible areas in the report. Samples will be labeled with an appropriate prefix relative to the type of sample, i.e., FT for floor tile, RC for roof core, etc. and sequential numbering. Asbestos samples will be sent to EMSL Analytical, Inc. in Houston, Texas.

2.1.1 LBP Sampling

The buildings on the subject property are not considered a child-occupied facility. As such, the LBP inspection will not be in accordance with Chapter 7 of the U.S. Department of Housing and Urban Development (HUD) Guidelines for a child-occupied facility. Samples of suspect LBP will be collected from peeled paint areas and will be submitted to AAI for laboratory analysis of lead in accordance with EPA method 6010. Samples will be labeled with a "P" prefix and sequential numbering and other appropriate descriptors such as paint color.

2.2 Instrument/Equipment Testing, Inspection, and Maintenance

All sampling and surveying equipment will be inspected and tested at the beginning and end of each workday. Malfunctioning equipment will be returned to the manufacturer or supplier for repair or replacement as necessary. Maintenance will be conducted according to the equipment manufacturer's instructions.

2.3 Inspection/Acceptance of Supplies and Consumables

Only new manufacturer-certified supplies and sample containers will be used. Sampling supplies and containers will be inspected prior to sampling activities for any obvious defects before use.

2.4 Non-Direct Measurements

No outside data will be used from other external sources for this project.

2.5 Data Management

2.5.1 Field Logbook Completion

Data collection procedures and instructions in this QAPP provide the guidance necessary to record information and data in field logbooks and chain-of-custody forms involved with data collection activities. Upon completion, field data and analytical sampling paperwork will be reviewed for accuracy, completeness, and legibility. Technical personnel will document and review their own work and are accountable for its correctness. The purpose of the review is to ensure that all forms are complete and legible. The Field Project Manager will ensure that the following has been done:

- All forms were completed using a ball point pen. All sample labels were completed with an indelible marker.
- If an error was made on any form, it was struck with a single line, the correct information was written above or beside the error, and the correction was initialed and dated. The incorrect information was not written over or obliterated in any way.
- If any sample documentation errors occur, they were documented in the field logbook.

In addition, the Field Project Manager or designated reviewer will also ensure that:

- The correct sample numbers were used.
- Chain-of-custody forms were relinquished by the sampler with the correct date and time noted.

2.5.2 Electronic Data Management

A systematic approach to data management that saves time, reduces transcription errors, and decreases hard copy analytical data to a more manageable level will be used. Analytical data will be provided to the users of the data before actual hard copies are produced.

2.5.3 Error Detection and Correction

The Field Project Manager or designee will review all field logbooks and forms. If any document completion errors are found during the review, then the incorrect form will be sent to the individual best suited to make corrections. After the form has been corrected, it will become the final version of the document, suitable for report usage.

3.0 Assessment and Oversight

3.1 Assessments and Response Actions

This section defines requirements and responsibilities for identifying quality-related deficiencies and non-conformances and for generating corrective action to prevent their recurrence. These requirements apply to deficiencies regardless of fault or cause and to procedural non-conformances identified through assessments, audits, or any other means. The following performance systems audits will be used.

3.1.1 *Field Audits*

If a systems audit is needed to assess field activities during this project, the Senior Project Manager may visit the site to evaluate the performance of field personnel and general field operations and progress. The audit will review sampling methodology and sample chain-of-custody forms, field data and reporting. The Senior Project Manager, Leslie Davis, will observe the performance of the field operations personnel during each kind of activity.

Field audits include examination of field sampling records, sample collection, handling and packaging in compliance with the established procedures, maintenance of Quality Assurance (QA) procedures and chain-of-custody procedures. Follow-up audits may be conducted to correct deficiencies, and to verify that QA procedures are maintained throughout the project. Field audits involve review of field measurement records, instrumentation calibration records and sample documentation.

3.1.2 *Laboratory Audits*

Due to the limited nature of this project, laboratory audits are not planned.

3.1.3 *Corrective Action*

Corrective action is the process of identifying, recommending, approving and implementing measures to counter unacceptable procedures or out-of-quality control performance which can affect data quality. Corrective action can occur during field activities, sample analysis and data assessment.

3.1.4 *Sample Collection/Field Measurements*

Corrective action may be needed in the field when the sample network is changed (i.e., more/fewer samples, sample locations other than those specified, etc.) or when sampling procedures and/or field analytical procedures require modification due to unexpected conditions. The Field Project Manager will be responsible for reporting all suspected technical or QA non-conformances or deficiencies to the Senior Project Manager. The Senior Project Manager will be responsible for assessing the suspected problems with the Client based on the potential for the situation to impact the quality of the data. If it is determined

that the situation warrants a reportable non-conformance requiring corrective action, then a non-conformance report will be initiated by the Senior Project Manager.

The Senior Project Manager will be responsible for ensuring that corrective action for non-conformances is initiated by:

- Evaluating all reported non-conformances.
- Controlling additional work on non-conforming items.
- Determining disposition or action to be taken.
- Maintaining a log of non-conformances.
- Reviewing non-conformance reports and corrective actions taken.
- Ensuring non-conformance reports are included in the final project documentation files.

Corrective action resulting from field audits will be implemented immediately if data may be adversely affected due to unapproved or improper use of approved methods. The Senior Project Manager will identify deficiencies and recommend corrective action to the Client. Corrective actions will be implemented by the Senior Project Manager, the Client and field team. Corrective actions will be implemented and documented in the field logbook.

3.1.5 *Laboratory Corrective Actions*

Corrective action in the laboratory may occur prior to, during, or after initial analyses. A number of conditions such as broken sample containers, multiple phases, or potentially high concentration samples may be identified during sample log-in or just prior to analysis. Following consultation with laboratory analysts and laboratory managers, it may be necessary for the laboratory Quality Control Coordinator to approve the implementation of corrective action. The analytical methods and/or laboratory's standard operating procedures specify some conditions during or after analysis that may automatically trigger corrective action or optional procedures. These conditions may include dilution of samples, additional sample extraction or automatic rejection/reanalysis when certain quality control criteria are not met. Laboratory personnel are alerted that corrective actions may be necessary if:

- QC data are outside the warning or acceptable windows for precision and accuracy.
- Blanks contain target analytes above acceptable levels (lead only).
- Undesirable trends are detected in spike recoveries or relative percent difference (RPD) between duplicates.
- There are unusual changes in detection limits.
- Deficiencies are detected by QA personnel during internal or external audits or from the results of performance evaluation samples.
- Inquiries concerning data quality are received.

Corrective action procedures are often handled at the bench level by the analyst, who reviews the preparation or extraction procedure for possible errors, checks the instrument calibration, spike and calibration mixes, instrument sensitivity, etc.

If the problem persists or cannot be identified, the matter is referred to the laboratory supervisor and/or QA personnel for further investigation. Once resolved, full documentation of corrective action procedures is required.

These corrective actions are generally performed prior to release of data from the laboratory. The corrective actions are documented by the laboratory, and if the data were affected, they should be identified in the laboratory narrative accompanying the data report. If corrective action does not rectify the situation, the laboratory will contact the Field Project Manager who will inform the Senior Project Manager.

The Senior Project Manager may request corrective action for any contractual non-conformance identified during data review. Corrective action may include:

- Reanalyzing samples, if holding times permit.
- Re-sampling and analyzing.
- Evaluating and amending sampling procedures.
- Evaluating and amending analytical procedures.
- Accepting the data and acknowledging the level of uncertainty.

The Senior Project Manager will be responsible for approving implementation of corrective action involving re-sampling or amending analytical procedures.

3.2 Reports to Management

A final report will be completed by Harbor that summarizes all analytical data, remedial actions taken, confirmation sampling, and deviations from original plans and procedures for the work. In addition, the final report will include the following items:

1. Current insurance certifications.
2. Copies of any correspondence with authorities and permits.
3. Daily project logs and supervisor reports.
4. All laboratory analytical data for the project.
5. Sign in/Sign out Sheets

Upon receipt, the Client will review the final report for completeness and accuracy, and then provide a written summary of the final report.

4.0 Data Validation and Usability

4.1 Data Review, Verification, and Validation

Data measured by the laboratory will be reviewed in-house (as appropriate by each laboratory's quality control procedures) prior to submittal to Harbor. This will include checking for appropriate data entry, along with transcription, calculation, reduction, and transformation errors. The analytical laboratory will provide reports of the analytical data, which will include copies of the chain-of-custody prepared in the field. The chain-of-custody will include a complete list of sample information available, such as sample dates, sample times, sample matrixes, blanks, duplicates, shipping dates, preservatives, and holding times, etc.

4.2 Verification and Validation Methods

Mr. Caleb Gourley will review all analytical data upon receipt from the laboratory. The data will be tabulated into Microsoft Excel for the report. The tables will then be compared to each analytical report to verify proper transcription. Harbor will also review the data for completeness to determine if there are any deficiencies, such as data missing or lost integrity.

Ms. Lisa Rotenberry will conduct data validation to determine the quality of the data set relative to the end use. It will focus on the project's specifications or needs and is designed to meet the needs of the decision makers/data users. The data validation will note potentially unacceptable departures from the QAPP. The potential effects of the deviation will be evaluated during the data quality assessment.

4.3 Reconciliation with User Requirements

In general, the primary Data Quality Objectives (DQO) for this investigation include collection of data of sufficient quality for use in assessing the presence of asbestos and LBP at the subject property. Quality criteria are set herein to assure suitability for intended use of the data. The following sections discuss data quality assurance criteria specific to this project and its goals.

4.3.1 Precision

Precision is a measure or estimate of the reproducibility of measurements and methods. It is defined for quantitative data as the variability of a group of values compared with their average value. Duplication of activities is generally the method by which precision is assessed. For purposes of assessing precision of the measurement systems (sampling events and analysis) to be used in this project, blind (i.e., sampling location not disclosed) duplicate samples and Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples will be obtained and analyzed along with the primary investigative samples. Precision will be calculated as RPD in analytical outcome between a given sample and corresponding duplicate samples.

4.3.2 Accuracy

Accuracy is the degree of agreement of a measurement or the average of several measurements with an accepted reference or true value; it measures bias in a system. Accuracy in the field is assessed through the use of field, rinsate, and trip blanks and through the adherence to all sample handling/preservation procedures and holding times. Field blanks and rinsate blanks are planned for this investigation.

Laboratory accuracy is assessed through the analysis of matrix spikes or standard reference materials and the determination of percent recoveries. This is normally expressed as the difference between measured and reference (true) values or the difference as a percentage of the reference or true value. If recoveries do not meet the required criteria, then the analytical data are considered to be potentially inaccurate. However, accuracy will vary from analysis to analysis because of individual sample and matrix effects. In an individual analysis, accuracy can be measured and expressed in terms of the recovery of surrogate compounds. This gives an indication of expressed recovery for analytes tending to behave chemically like the spiked or surrogate compounds.

4.3.3 Representativeness

Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Representativeness is a qualitative parameter, which is dependent upon the proper design of the sampling program and proper laboratory protocol. The sampling approach was designed to provide data representative of the site conditions. During development of this approach, consideration was given to current and past site activities, existing data, and physical setting. Representativeness will be satisfied by ensuring that the QAPP is followed, proper sampling techniques are used, proper analytical procedures are followed, and holding times of the samples are not exceeded.

4.3.4 Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under normal conditions. The completeness of field measurements must be greater than 90 percent. Laboratory analysis for this project will have a completeness goal of greater than 95 percent. Completeness will be calculated by dividing the number of valid results by the number of possible individual analyte results, expressed as a percentage.

4.3.5 Comparability

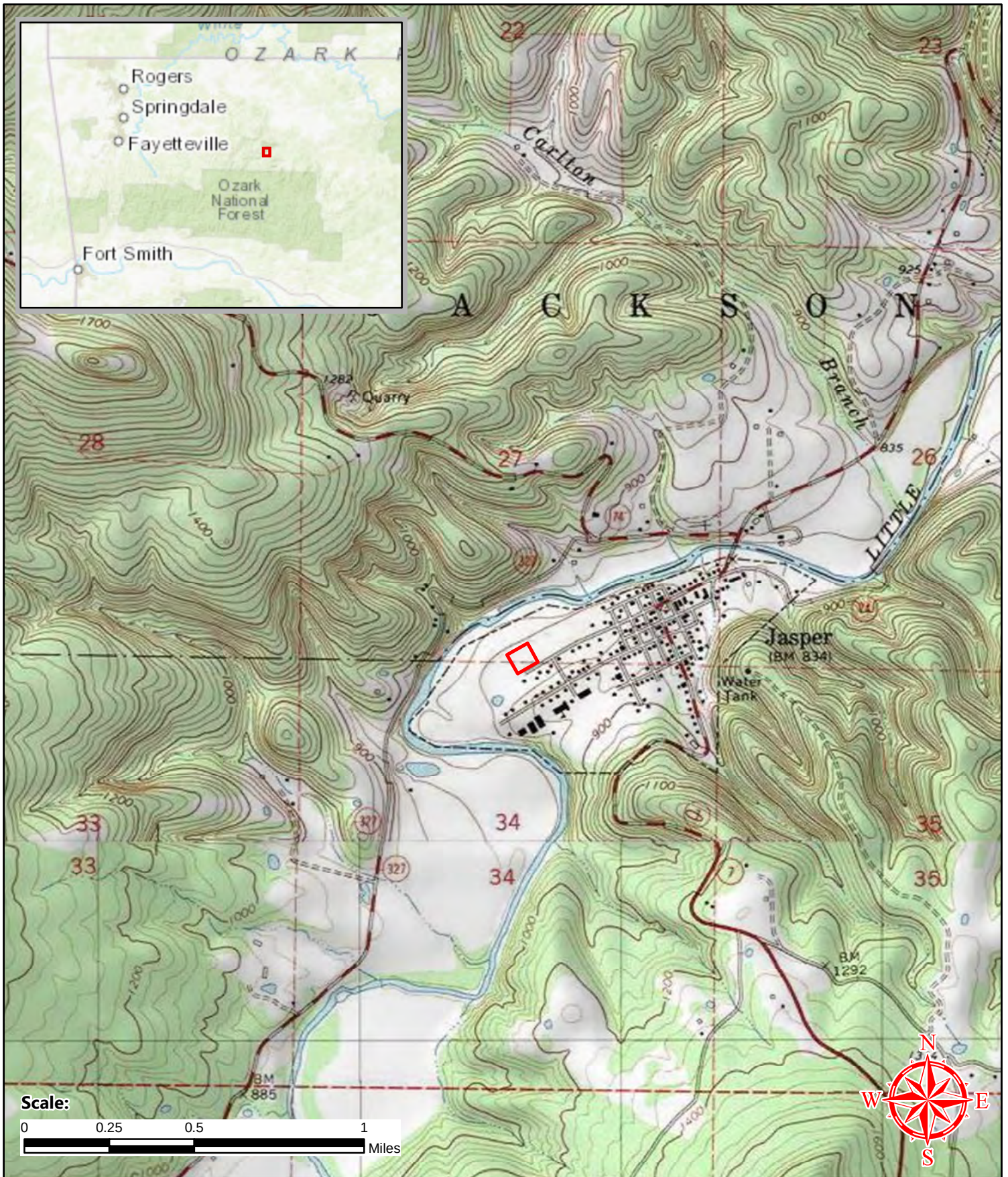
Comparability is the degree to which one data set can be compared to another. The objective of this QAPP is to produce a high level of comparability between data sets. Heterogeneous investigative samples make it difficult to obtain consistently high comparability values. However, the use of standard methods for sampling and analysis (EPA

protocols), reporting data in standard units, and using standard and comprehensive reporting formats will optimize the potential for high levels of data comparability.

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Figures

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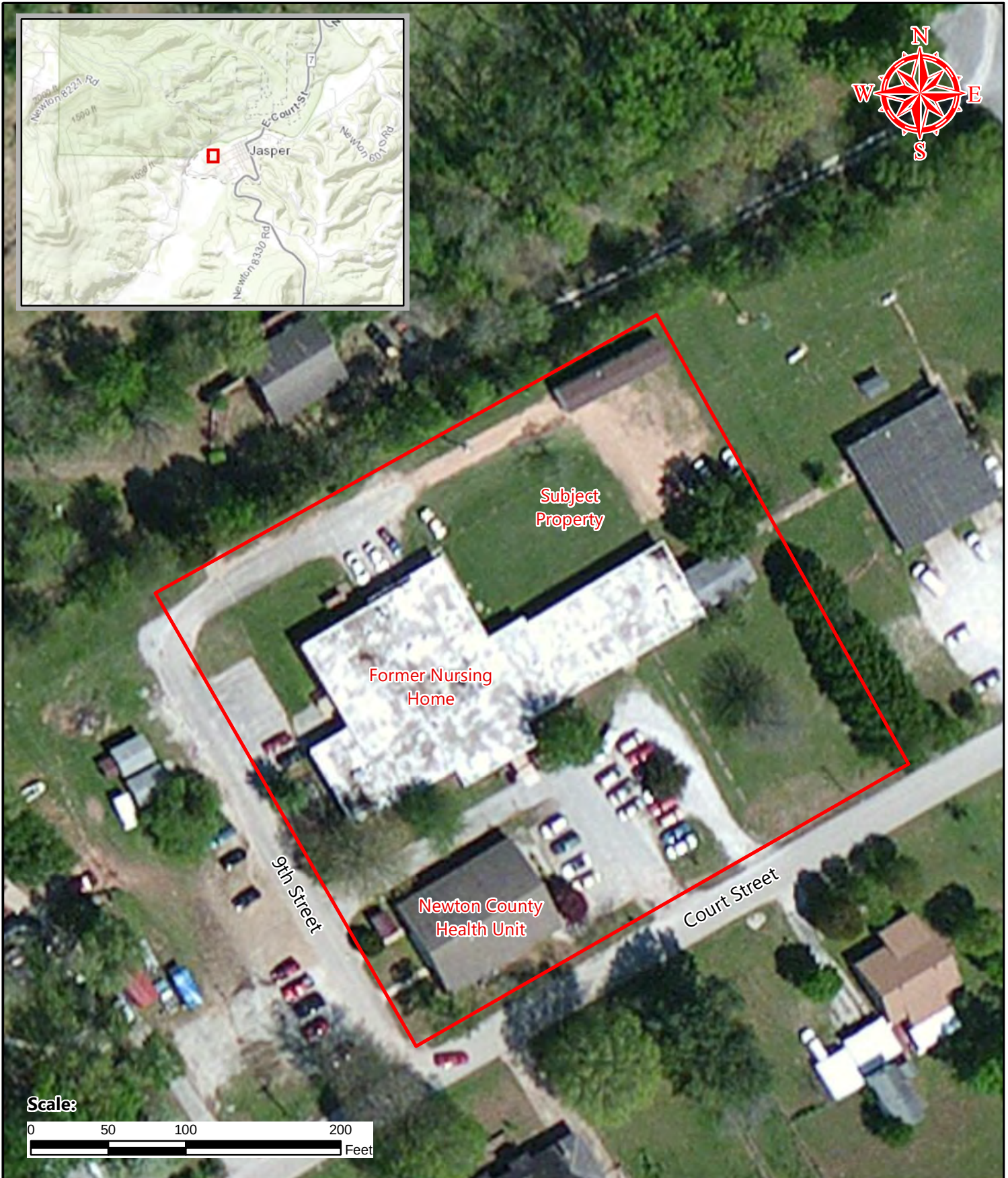
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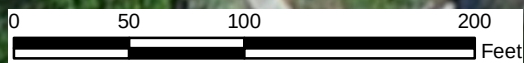
Legend

Approximate Property Boundary

Figure 1 - Site Location Map
Newton County Health Unit
Former Nursing Home
Jasper, Newton County, AR
Date: 1/23/2023
Drawn by: TH
Checked by: LR



Scale:



Harbor
5800 Evergreen Drive
Little Rock, AR 72205
P: 501.663.8800
www.HarborEnv.com

Client:



Legend

 Approximate Property Boundary

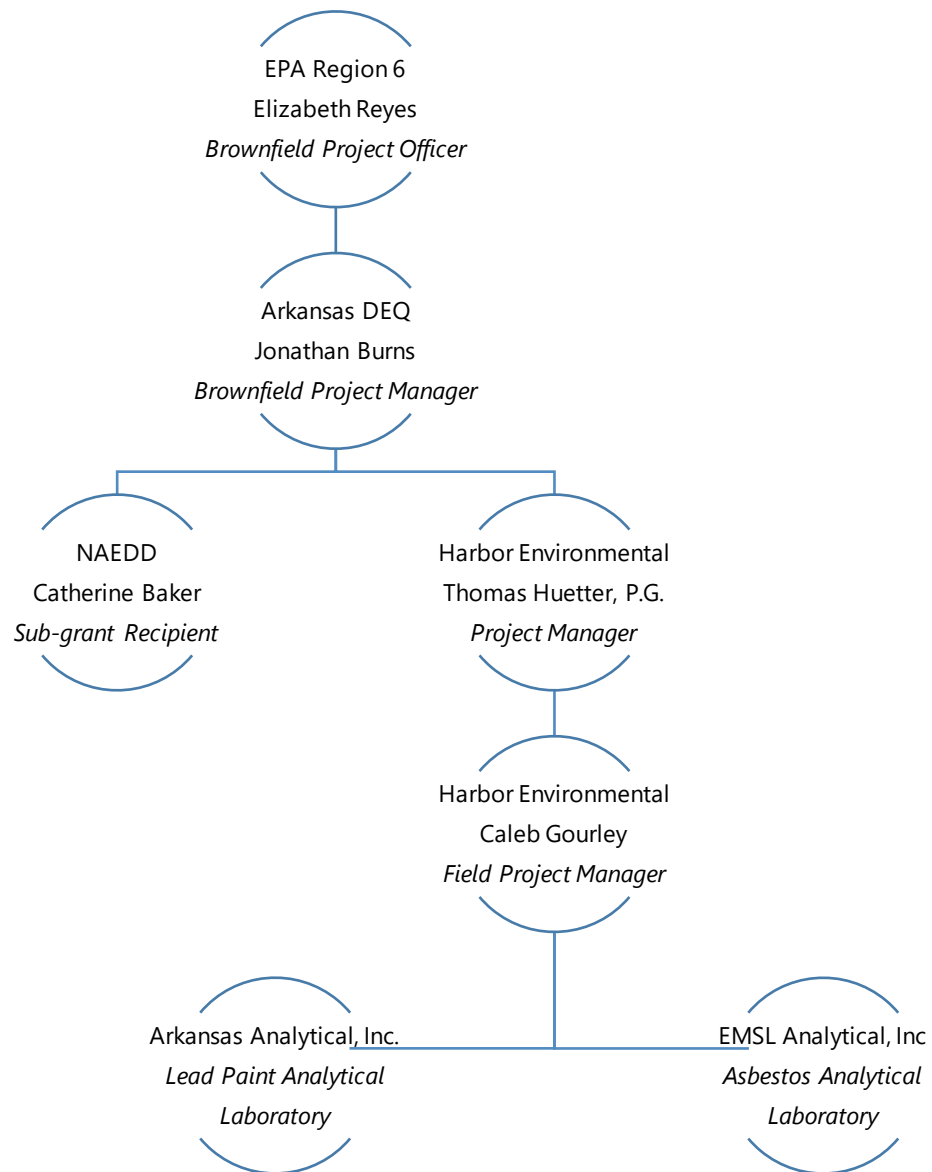
Figure 2 - Site Aerial Map
Newton County Health Unit
Former Nursing Home
Jasper, Newton County, AR
Date: 1/23/2023
Drawn by: TH
Checked by: LR

Appendix A

Organizational Chart

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PROJECT TEAM



Appendix B

Training/Certification Documentation

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Arkansas Department of Environmental Quality

CALEB GOURLEY

having satisfied the requirements necessary to meet the provisions of AHERA/ASHARA under TSCA Title II and the Arkansas Pollution Control and Ecology Commission's Regulation 21 and is hereby certified in the State of Arkansas in the discipline(s) of Asbestos

Discipline	Issue Date	Effective Date	Expiration Date
Inspector	05/12/2022	06/14/2022	05/31/2023



Certification Number: **018257**

Becky W. Keogh
Becky W. Keogh
ADEQ Director

Arkansas Department of Environmental Quality

HARBOR ENVIRONMENTAL, INC.

is a licensed

Asbestos Abatement Consultant

having qualified as required by law in accordance with the regulations adopted by the Arkansas Pollution Control and Ecology Commission's Regulation 21 pursuant to Arkansas Code Annotated §20-27-1001 et seq., relative to abatement of asbestos-containing material within the state of Arkansas.



License Number: 000477

Issue Date: 03/26/2022

Expire Date: 03/26/2023

A handwritten signature in blue ink that reads "Becky W. Keogh".

Becky W. Keogh
ADEQ Director

THE ARKANSAS DEPARTMENT OF ENERGY AND ENVIRONMENT

LABORATORY ACCREDITATION PROGRAM

Arkansas Analytical, Inc.

8100 National Drive
Little Rock, AR 72209

has earned accreditation in accordance with the State Environmental Laboratory Accreditation Program Act (Ark. Code Ann. § 8-2-201 et seq.).

The laboratory's scope of accreditation includes the fields of accreditation that accompany this certificate.

Accreditation does not imply that a product, process, system or person is approved by the Arkansas Department of Energy and Environment. Continued accreditation depends upon successful ongoing participation in the program.

The Arkansas Department of Energy and Environment urges customers to verify the laboratory's current location(s) and accreditation status for particular methods and analyses (www.adeq.state.ar.us/techsvs/lab_cert/labcert.aspx).



Laboratory ID: 60-01754

Issued Date: October 28, 2022

Expiration Date: October 28, 2023

Becky W. Keogh

Cabinet Secretary

Arkansas Department of Energy and Environment



THE ARKANSAS DEPARTMENT OF ENERGY AND ENVIRONMENT

LABORATORY SCOPE OF ACCREDITATION

Laboratory: Arkansas Analytical, Inc.

Laboratory ID: 60-01754

Location: 8100 National Drive
Little Rock, AR 72209

Expiration Date: 10/28/2023

List of Approved Analytes: (Page 1 of 1)

Alkalinity	Perchlorate
BOD	Pesticides
Bromide	pH
Cadmium	Phenol
Calcium	Potassium
CBOD	Selenium
Chloride	Semi-volatiles
Chlorine	Silver
Chromium	Sodium
Chronic Toxicity	Strontium
Cobalt	Sulfate
COD	Sulfide
Color	Surfactants
Conductivity	TDS
Copper	Thallium
Corrosivity	Tin
Cyanide	Titanium
DRO	TKN
E. coli	TOC
Explosives	Total Coliform
Fecal Coliform	Total Phosphorous
Fluoride	Total Solids
GRO	TPH
Hardness	TSS
Herbicides	Turbidity
Hex. Chromium	Vanadium
Ignitability	Vol Solids
Iron	Volatile Organics
Lead	Zinc
Magnesium	Aluminium
Manganese	Antimony
Mercury	Arsenic
Molybdenum	Barium
Nickel	Beryllium
Nitrate	Boron
Nitrite	Acute Toxicity
Oil & Grease	Ammonia
PCBs	

Appendix C

Site-Specific HASP

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HEALTH AND SAFETY PLAN – ASBESTOS AND LEAD-BASED PAINT SURVEY

Newton County Health Unit & Nursing Home

Jasper, Arkansas

Client:

Arkansas Department of Energy and Environment
Division of Environmental Quality

5301 Northshore Drive

North Little Rock, AR 72118

Phone: 501-683-0028

Contact: Jonathan Burns
Brownfield & Site Assessment Inspector
jonathan.d.burns@adeq.state.ar.us

January 2023



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Health and Safety Plan

This Health and Safety Plan (HASP or Plan) has been prepared by Harbor Environmental and Safety (Harbor) to protect workers conducting asbestos and lead-based paint (LBP) sampling operations at the Newton County Health Unit & Nursing Home property in Jasper, Newton County, Arkansas. It is based on the best available information regarding the physical and chemical hazards known or suspected to be present on the site. While it is not possible to discover, evaluate, and protect in advance against all possible hazards that may be encountered during the completion of this project, adherence to the requirements of the HASP will significantly reduce the potential for occupational injury.

By signing below, I acknowledge that I have reviewed and hereby approve the HASP for the Newton County Health Unit & Nursing Home property. This HASP has been written for the exclusive use of Harbor, its employees, and subcontractors. The Plan is written for specified site conditions, dates, and personnel, and must be amended if these conditions change.

Prepared by:



Caleb Gourley
Project Manager



Lisa Rotenberry
Senior Director of EHS Compliance

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Figure 1: Topographic Site Location Map

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Attachment A: Map and Directions to the Hospital

Attachment B: Asbestos and Lead-Based Paint Health Information

Acronyms and Abbreviations

ADE&E	Arkansas Department of Energy & Environment
CFR	Code of Federal Regulations
DEQ	Division of Environmental Quality
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
Harbor	Harbor Environmental and Safety
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
QAPP	Quality Assurance Project Plan
QA/QC	Quality assurance/quality control
SDS	Safety Data Sheet

1.0 General Information

This HASP was developed by Harbor to be used during asbestos and LBP sampling operations at the Newton County Health Unit & Nursing Home property in Jasper, Arkansas. General information for the project site is summarized below.

Site Name:	Newton County Health Unit & Nursing Home Property
Site Address:	504 and 506 W. Court Street Jasper, AR 72641
Project Contact:	Jonathan Burns, Brownfield & Site Assessment Inspector
Contact Phone Number:	(501) 683-0028
Purpose of Work:	Asbestos and Lead-Based Paint Survey
Proposed Date of Work:	February – March 2023

1.1 Plan Applicability

The provisions of this HASP are mandatory for Harbor personnel and subcontractors performing investigative field activities that will or could be exposed to onsite hazardous substances and physical hazards. Site personnel will operate in accordance with the most current requirements of Title 29 Code of Federal regulations (CFR) 1910.120, Standards for Hazardous Waste Operations and Emergency Responders (HAZWOPER). These Occupational Safety and Health Administration (OSHA) regulations include the following provisions for employees concerning hazardous substances, health hazards, or safety hazards: training as described in §1910.120(e), medical surveillance as described in §1910.120(f), and personal protective equipment (PPE) as described in §1910.120(g).

Personnel assigned to field activities must read this HASP and sign the attached Plan acceptance form (Section 8.0) before commencement of site activities. All authorized site visitors requesting access to controlled areas will be required to read and sign the Plan acceptance form (Section 8.0) or sign a waiver for release of liability. Health and safety training certificates will be maintained for all Harbor and subcontractor employees who could be exposed to onsite hazards.

2.0 Site Assessment Team

Personnel to be present onsite during asbestos/lead-based paint sampling activities may include the following:

- Caleb Gourley – Project Manager and Site Safety Officer
- Adam Smith – Certified Asbestos Inspector
- Jonathan Burns – Brownfield & Site Assessment Supervisor

Mr. Gourley will be the Project Manager and Site Safety Officer during site investigation activities. He will be responsible monitoring personnel performance to ensure that mandatory health and safety precautions are observed and that any performances not complying with the HASP are corrected. If unforeseen site conditions or an emergency occurs, Mr. Gourley will ensure that the medical surveillance program is implemented as required by 29 CFR §1910.120. Additional responsibilities include ensuring that a copy of the HASP is maintained onsite during all field activities and conducting safety briefings during field activities, as necessary. Mr. Gourley also has the primary responsibility for assuring that all onsite personnel are aware of:

- Safety, health, and onsite hazards;
- Accessibility to safety equipment, including PPE;
- Site access and control measures, decontamination procedures, and emergency responses (including necessary PPE);
- Work practices to minimize risks;
- Safe use of equipment onsite;
- Medical surveillance requirements, including recognition of symptoms possibly indicating overexposure to hazards;
- Potential contaminants present at site;
- Vehicular traffic;
- Operations zones;
- Communications;
- Operations zones; and
- Nearest medical facility.

3.0 Site Information and Scope of Work

Harbor has been contracted to conduct a Phase I Environmental Site Assessment (ESA) and asbestos and LBP sampling on the two tracts containing the Newton County Health Unit and the former Nursing Home located at 504 and 506 W. Court Street in Jasper, Newton County, Arkansas. Figure 1 in the Quality Assurance Project Plan (QAPP) is a Topographic Site Location Map. The ESA was requested by Mr. Jonathan Burns of the Arkansas Department of Energy and Environment (ADE&E), Division of Environmental Quality (DEQ) on behalf of Newton County.

3.1 Site Background

The Northwest Arkansas Economic Development District (NAEDD) has applied to the DEQ Brownfield Program for funding to conduct assessment activities at the two referenced properties and buildings prior to building renovation or potential demolition.

An asbestos survey of the old nursing home was conducted in 2022, so this building is excluded from asbestos sampling, but will be evaluated for the presence of LBP. The Newton County Health Unit was dedicated in 1991 and is currently in use for that purpose. The old nursing home was a hospital, then a nursing home, and currently is in partial use as office space. The age of the old nursing home is unknown. A current occupant of the old nursing home building indicated that an asbestos inspection was conducted around 2015 which documented asbestos in pipe insulation in the ceiling. A copy of this report was not available for review; however, DEQ did provide Harbor a copy of an asbestos survey that was conducted on the nursing home building in 2022 for review.

The asbestos and LBP survey and Phase I ESA are being funded by the DEQ Brownfields Program, which received a grant from the EPA for assessment of Brownfield sites in Arkansas.

3.2 Scope of Work

Harbor will conduct an asbestos and LBP survey to evaluate the presence of asbestos-containing materials (ACM) and LBP. The survey will be conducted in accordance with DEQ and National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements. Harbor is a DEQ licensed asbestos consultant (No. 000477).

Federal and state regulatory agencies define an ACM as any building material that contains greater than 1% asbestos. The presence and percentage of asbestos can only be determined by laboratory analysis. Asbestos samples will be sent to EMSL Analytical, Inc. (EMSL) in Houston, Texas. EMSL participates in the National Institutes for Standards and Testing (NIST) National Voluntary Laboratory Accreditation Program proficiency testing program (NVLAP# 300159). Samples will be analyzed by Polarized Light Microscopy (PLM) by EPA method 600/R/R-93/116.

The LBP inspection will be conducted to evaluate the presence of LBP that could expose workers during the demolition activities. Samples of chipped paint will be collected where available and placed in an appropriate laboratory supplied container, logged on a chain-of-custody, and secured for transport to Arkansas Analytical, Inc. in Little Rock, AR for lead analysis in accordance with EPA method 6010.

4.0 Emergency Information

The Newton County Sheriff's Office operates the 911 Operations Center at 300 N. Spring Street in Jasper. The 911 Center is responsible for answering emergency phone calls and dispatching emergency personnel. The nearest hospital is the North Arkansas Regional Medical Center (NARMC) at 620 North Main Street in Harrison, Arkansas, approximately 20 miles north of Jasper. NARMC operates an ambulance and emergency medical service (EMS) with facilities located at 4711 Highway 7 South approximately five miles south of the subject property. In the event of a fire, the subject property is located in the jurisdiction of Jasper Fire Department.

4.1 Local Resources

Hospital:	NARMC 620 North Main Street Harrison, Arkansas 72601	Phone: (870) 414-4000
Ambulance:	NARMC EMS Newton County Ambulance 4711 Highway 7 South Jasper, Arkansas 72641	Phone: (870) 446-6299 or 911
Police:	Jasper Police Department Jasper, Arkansas 72641	Phone: (870) 446-2634 or 911
Fire Department:	Jasper Fire Department 101 Elm Street Jasper Arkansas 72641	Phone: (870) 446-2633 or 911

4.2 Office Resources

Harbor Environmental and Safety	Phone: (501) 663-8800
ADE&E Division of Environmental Quality	Phone: (501) 682-0744
EPA Region 6 – Dallas, Texas	Phone: (800) 887-6063

4.3 Other Emergency Contacts

Poison Control Center	Phone: (800) 222-1222
National Response Center (Emergency Only)	Phone: (800) 424-8802

4.4 Directions to Nearest Hospital

Driving directions and a map to the NARMC hospital in Harrison, AR are presented in Attachment A of this HASP.

5.0 Potential Site Hazards

5.1 Physical Hazards

Physical hazards at the site may include moving equipment, underground and overhead utilities, biological hazards, heat or cold stress, and airborne dust. Observed site conditions indicate that portions of some of the buildings on the subject property are in a damaged state. Access to these areas will be limited. In addition, the abundant, stacked construction material and debris could cover unseen hazards.

Regardless of climatic conditions, workers will be provided adequate fluids to stay hydrated. Additionally, a canopy will be provided for shade or protection from rain. Sunscreen will be provided for additional sun protection. If airborne dust is generated during sampling, potable water may be applied to the surface within the working area to minimize dust. If airborne dust continues to be a potential hazard, the HASP will be modified and worker protection upgraded, accordingly, before work continues.

Other physical hazards include possible exposure to ACM or LBP. Health hazards for ACM include inhalation of disturbed asbestos fibers which can cause long-term health effects in the lungs. Lead is a known carcinogen that can have negative effects on workers' health if ingested or inhaled. More information on the health hazardous of ACM and LBP can be found in Attachment B.

5.2 Biological Hazards

Biological hazards (e.g., spiders, ticks, snakes) are possible during this investigation. Site personnel will be provided with appropriate insect repellent to minimize exposure to ticks and tick-borne illnesses. Workers will be instructed to evaluate areas that may contain spiders or snakes prior to reaching under equipment. Exposure to E. coli could inadvertently occur if proper personal sanitation is not ensured. All employees should use appropriate gloves when handling asbestos and LBP samples, along with sampling equipment. Employees should also wash their hands with soap and potable water prior to eating or drinking.

5.3 Hazard Evaluation

Potential hazards not identified above will be evaluated as necessary during field operations. Daily tail-gate safety meetings will be held and documented to familiarize team members of all potential hazards. Should a hazard develop or be observed, operations will cease, and the hazard will be assessed. Work will not continue until the hazard is mitigated.

6.0 Recommended Level of Protection

The primary goal of this HASP is prevention of occupational injuries and illnesses. The following practices are presented as general precautionary measures for reducing the risks associated with hazardous materials. Failure to adhere to these measures will result in removal from the site.

- Be familiar with and knowledgeable about safety standard operating procedures.
- Be familiar with, knowledgeable about, and adhere to requirements of the HASP.
- Identify and arrange for emergency medical assistance. The location and transportation capabilities of nearest emergency medical facility should be known (see Attachment A).
- Consider fatigue, cold stress, heat stress, and other environmental factors influencing personnel efficiency.

Field activities that involve handling of asbestos and lead-based paint at the site will be performed in the appropriate PPE. This protection includes hardhats (if in active clearing zone), rubber boots, disposable coveralls, safety glasses, and appropriate protective gloves. Additionally, respiratory protection may be required during sampling activities.

7.0 Site Control

The asbestos and LBP sampling activities are located on private property, and site access is somewhat limited. Each sampling location will be designated as an Exclusion Zone while sampling activities are occurring. All site personnel entering the Exclusion Zone must have read and signed the HASP and must use the required PPE as discussed in Section 6.0. Equipment decontamination will be conducted outside the Exclusion Zone.

8.0 HASP Acknowledgement

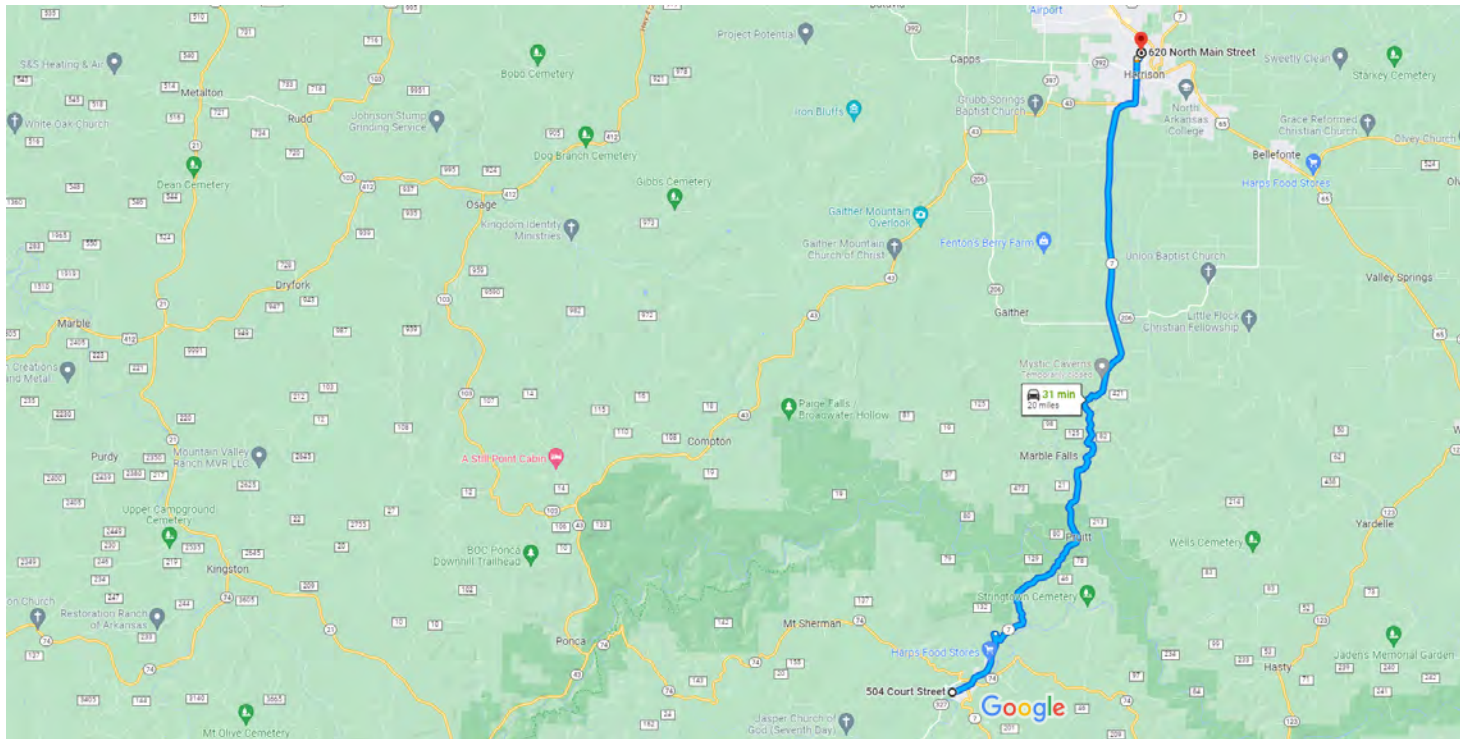
All personnel working on site must read and fully understand this HASP. By signing below, you acknowledge that you have read the HASP, fully understand it, and will abide by it while on the site.

HEALTH AND SAFETY PLAN ACKNOWLEDGMENT SHEET			
I acknowledge having received a briefing on this HASP, and that I understand the requirements of this Plan as a Harbor Environmental and Safety employee or subcontractor. Other personnel that are acknowledging this briefing do so with the understanding that all parts may not apply to them and that their company's policies supersede.			
Printed Name	Company	Signature	Date

Attachment A

Map and Directions to Hospital

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Map data ©2023 Google 2 mi

504 Court St
Jasper, AR 72641

- ↑

1. Head southeast on 9th St toward Court St

118 ft
- ↶

2. Turn left onto Court St

2.1 mi
- ↑

3. Continue onto AR-7 N

17.2 mi
- ↑

4. Continue straight past Subway onto S Pine St

0.5 mi
- ↷

5. Turn right onto W Bower Ave

338 ft
- ↶

6. Turn left at the 1st cross street onto N Spring St

📍 Destination will be on the right

0.1 mi

620 N Main St
Harrison, AR 72601

Attachment B

Asbestos and Lead-Based Paint Health Information

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OSHA[®] FactSheet

Asbestos

Asbestos is a naturally occurring mineral fiber. It was used in numerous building materials and vehicle products for its strength and ability to resist heat and corrosion before its dangerous health effects were discovered. Individual asbestos fibers cannot be seen by the naked eye, which puts workers at an increased risk. The Occupational Safety and Health Administration (OSHA) has regulations to protect workers from the hazards of asbestos.

What is the hazard?

Asbestos fibers are released into the air during activities that disturb asbestos-containing materials.

The asbestos fibers can then be inhaled without knowing and trapped in the lungs. If swallowed, they can become embedded into the digestive tract as well.

Asbestos is a known human carcinogen and can cause chronic lung disease as well as lung and other cancers. Symptoms and/or cancer may take many years to develop following exposure.

Where is the hazard?

The hazard may occur during manufacturing of asbestos-containing products; performing brake or clutch repairs; renovating or demolishing buildings or ships; or cleanup from those activities; contact with deteriorating asbestos-containing materials and during [cleanup after natural disasters](#).

Some materials are presumed to contain asbestos if installed before 1981. Examples of these materials, as well as other presumed asbestos-containing materials are:

- Thermal system insulation
- Roofing and siding shingles
- [Vinyl floor tiles](#)
- Plaster, cement, putties and caulk
- Ceiling tiles and spray-on coatings
- Industrial pipe wrapping
- Heat-resistant textiles
- Automobile brake linings and clutch pads

OSHA Standards

OSHA has three standards to protect workers from the hazards of asbestos depending on the

type of workplace. For complete information on all of the requirements, see the standard specific to your type of workplace:

General Industry: [29 CFR 1910.1001](#) covers work in general industry, such as exposure during brake and clutch repair, maintenance work, and manufacture of asbestos-containing products.

Shipyards: [29 CFR 1915.1001](#) covers construction, alteration, repair, maintenance, renovation and demolition of structures containing asbestos during work in shipyards.

Construction: [29 CFR 1926.1101](#) covers construction, alteration, repair, maintenance, or renovation and demolition of structures containing asbestos.

What protections exist in the Standards?

- **Permissible Exposure Limit (PEL)** for asbestos is 0.1 fiber per cubic centimeter of air as an eight-hour time-weighted average (TWA), with an excursion limit (EL) of 1.0 asbestos fibers per cubic centimeter over a 30-minute period. The employer must ensure that no one is exposed above these limits.
- **Assessment** of workplaces covered by the standards must be completed to determine if asbestos is present and if the work will generate airborne fibers by a specific method under each standard.
- **Monitoring** necessary to detect if asbestos exposure is at or above the PEL or EL for workers who are, or may be expected to be exposed to asbestos. Frequency depends on work classification and exposure. The construction and shipyard standards require assessment and monitoring by a competent person.

- If the exposure has the potential to be above the PEL or EL, employers must use proper **engineering controls and work practices** to the extent feasible to keep it at or below the PEL and EL. Where feasible engineering controls and work practices do not ensure worker protection at the exposure limits, employers must reduce the exposures to the lowest level achievable and then supplement with proper **respiratory protection** to meet the PEL. The construction and shipyard standards contain specific control methods depending on work classification, and the general industry standard has specific controls for brake and clutch repair work.
- **Proper hazard communication and demarcation** with warning signs containing specified language in areas that have exposures above the PEL or EL is necessary. No smoking, eating, or drinking should occur in these areas and proper PPE must be provided and used to prevent exposure.
- **Separate decontamination and lunch areas** with proper hygiene practices must be provided to workers exposed above the PEL to avoid contamination.
- **Training** requirements depend on the workplace exposure and classification. Training must be provided to all workers exposed at or above the PEL before work begins and yearly thereafter. All training must be conducted in a manner and language in which the worker is able to understand. Workers who perform housekeeping operations in buildings with presumed asbestos-containing materials but not at the PEL must also be provided asbestos awareness training.
- **Medical surveillance** requirements are different depending on the industry. Medical surveillance must be provided for workers who engage in certain classifications of work, or experience exposures at or above the PEL in construction and shipyards. In general industry, medical examinations must be

provided for workers who experience exposure at or above the PEL.

- **Records** must be kept on exposure monitoring for asbestos for at least 30 years, and worker medical surveillance records retained for the duration of employment plus 30 years. Training records must be kept for at least 1 year beyond the last date of employment.

Contact OSHA

For more information on this and other health-related issues impacting workers, to report an emergency, fatality or catastrophe, to order publications, to file a confidential complaint, or to request OSHA's free on-site consultation service, contact your nearest OSHA office, visit www.osha.gov, or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

Worker Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace.
- Review records of work-related injuries and illnesses.
- Get copies of test results that find and measure hazards.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules.
- OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation or discrimination.

For more information, see OSHA's [workers page](#).

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



**Occupational
Safety and Health
Administration**

U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

DEP FS-3507 01/2014

Lead Poisoning Prevention Fact Sheet



FACTS ABOUT LEAD-BASED PAINT

Lead is a toxic metal that was used for many years in products found in and around our homes. Over the past 30 years, the U.S. has banned lead from products such as gasoline, pipes, and paint. Even though lead is no longer used in home construction, many older homes have lead in paint that can pose a health risk to children living in them. The U.S. Department of Housing and Urban Development (HUD) estimates that 38 million homes in the U.S. still contain some lead paint on areas such as walls, woodwork, porches, siding, windows, and doors. This lead becomes dangerous as the paint wears or is disturbed by renovations, creating lead dust.

HEALTH EFFECTS OF LEAD

Lead poisoning is a preventable environmental disease which affects an estimated 250,000 children in the United States. Lead can get into your body, through breathing or swallowing lead dust particles, and by eating chips, dust, or soil containing lead based-paint.

Lead is most harmful to children six-years-old or younger because children often put their hands and other objects in to their mouth which may have lead dust on them. Growing bodies absorb more lead, and **children's brains and nervous systems are more sensitive to the damaging effects of lead.**

Health effects of lead in children can include:

- Behavioral and learning problems (hyperactivity)
- Delayed growth
- Hearing problems
- Headaches
- Damage to the brain and central nervous system

Health effects of lead in adults can include:

- Reproductive problems
- High blood pressure
- Digestive disorders
- Muscle and joint pain
- Memory and concentration problems
- Nerve disorders

SOURCES OF LEAD

Contaminated dust is the major source of lead for most children. While lead paint that is intact is generally not a concern, paint that is peeling or chipping can create a hazard. Lead-based paint was used heavily in homes built before 1960, but was phased out of paint in 1978. **In general, the older the home or structure, the more likely it is to have lead-based paint.** It is most commonly found on windows, trim, doors, railings, columns, porches and exterior walls.

Other sources of lead exposure include:

- **Drinking water** - older homes may have lead plumbing pipes or lead solder. If you think your home plumbing has lead, use only cold water for drinking and cooking and run the water for 30 seconds before drinking it.
- **Occupations** - Some jobs may leave lead dust on clothing such as construction, demolition, painting, working with batteries or in a radiator repair shop. If you work with lead in your job, change your clothes before going home. Wash your hands well before eating, drinking, or smoking.
- **Hobbies** - some hobbies use lead such as making pottery, stained glass, sinkers, bullets, or refinishing furniture. If you have hobbies involving lead, change your clothes before going home. Wash your hands well before eating, drinking, or smoking.
- **Soil** - Lead from paint can peel off the outside of the house and get into the soil. Encourage your children to play in sand or grassy areas and try to keep them from eating dirt. Make sure they wash their hands when they come inside.
- **Pottery** - avoid eating or storing foods in lead crystal or lead-glazed pottery or porcelain.
- **Lead smelters** - release lead into the air.
- **Folk remedies** - some remedies contain lead, such as "greta" and "azarcon," which are used to treat an upset stomach.

For more information on lead visit EPA's website at www.epa.gov/lead or call 1-800-424-LEAD

REDUCING THE RISKS OF LEAD

If you live in a home built before 1978 and the paint is in poor condition, or you have been or are remodeling, you should talk to your physician about having your children tested. A simple blood test is the only way to know if a child has lead poisoning. Blood lead tests are especially important for babies and toddlers since their blood levels tend to increase rapidly from 6 to 12 months and peak at 18 to 24 months of age. Children older than one year should have a blood test every couple of years or every year if the house or apartment contains lead paint or if you use lead in your job or hobby.

[A paint inspection will determine if there is lead content in the paint.](#) A risk assessment will determine if there are any sources of lead exposure which may be hazardous and what actions you need to take. Lead inspections and assessments should be done by qualified individuals who are certified lead-based paint professionals. For a list of certified professionals, visit EPA's website at www.epa.gov/lead/pubs/locate.htm or call the Idaho Indoor Environment Program at 1-800-445-8647.

[Certain renovations can release lead from paint and dust into the air.](#) Take the following precautions before you or a contractor disturb painted surfaces:

- Have the area tested for lead-based paint.
- Temporarily remove your family when the remodeling is being done, especially children and pregnant women. Seal off the area from the rest of the house.
- Do not use a belt-sander, propane torch, heat gun, dry scraper or dry sander. These can produce large amounts of lead dust and fumes.
- Follow other safety measures as outlined in the EPA booklet, "Renovate Right" available by calling 1-800-424-LEAD or through their website at www.epa.gov/lead.

[Other simple steps that can be taken to reduce exposure to lead:](#)

- Keep the areas your children play in as dust-free and clean as possible.
- Ensure that your children have a nutritious diet strong in iron and calcium. This will reduce the amount of lead their body takes in.
- Keep children from chewing on window sills or other painted surfaces.
- Wash children's hands often throughout the day, especially before meals and bedtime.
- Wash bottles, pacifiers, toys, and stuffed animals regularly.
- Clean-up paint chips immediately.
- If you rent, notify your landlord of peeling or chipping paint.
- Clean floors, window frames, window sills, and other surfaces weekly using warm water and a general all-purpose cleaner. [NEVER MIX AMMONIA AND BLEACH AS THEY CAN FORM A DANGEROUS GAS.](#)
- Clean or remove shoes before entering your home to avoid tracking in lead from soil.
- Bathe pets on a regular basis to reduce the amount of dirt they bring in from the outside.

LEAD DISCLOSURE AND REMODELING LAWS

Federal law requires the following in pre-1978 housing:

- Landlords have to disclose known information on lead-based paint and lead-based paint hazards before leases are signed. Leases must include a lead-based paint disclosure form.
- Home sales contracts must include a lead-based paint disclosure form. Buyers have up to 10 days to check for lead hazards.
- Contractors doing renovation, repair, and painting projects in homes, schools, and child care centers have to be certified and trained to follow lead safe work practices.
- Renovators are required to provide occupants with a copy of the EPA booklet, "Renovate Right."

End of Document