



# Spire STL Pipeline Project

Resource Report 4  
Cultural Resources

FERC Docket No. CP17-40-\_\_\_\_

Amendment to FERC Application  
April 2017

Public



<b>RESOURCE REPORT 4 - CULTURAL RESOURCES</b>	
<b>SUMMARY OF FILING INFORMATION</b>	
<b>Information</b>	<b>Found in</b>
1. Initial cultural resources consultation and documentation, and documentation of consultation with Native Americans - Title 18 Code of Federal Regulations (CFR) part (§) 380.12(f)(1)(i) & (2)	Section 4.2.
2. Overview/Survey Report(s) - 18 CFR § 380.12(f)(1)(ii) & (2)	Section 4.3.
<b>INFORMATION RECOMMENDED OR OFTEN MISSING</b>	
1. Identify the project area and the project's impacts in terms of direct and indirect effects on cultural resources.	Section 4.3.
2. Provide a project map with mileposts clearly showing boundaries of all survey areas (right-of-way, extra work areas, access roads, etc.). Ensure mileposts are marked, and survey corridor widths are clearly specified, and clearly indicate where survey has not yet been completed.	Appendices 4-A and 4-B.
3. Provide documentation of consultation with applicable State Historic Preservation Offices (SHPO), Tribal Historic Preservation Offices (THPO), and land-managing agencies regarding the need for and required extent of cultural resource surveys.	Section 4.2.
4. Provide a narrative summary of overview results, cultural resource surveys completed, identified cultural resources and any cultural resource issues.	Section 4.3.
5. Provide a project specific Ethnographic Analysis (can be part of Overview/Survey Report).	Appendices 4-A and 4-B.
6. Identify by mileposts any areas requiring survey for which the landowner denied access.	Section 4.3.



<b>RESOURCE REPORT 4 - CULTURAL RESOURCES</b>	
<b>INFORMATION RECOMMENDED OR OFTEN MISSING</b>	
<b>Information</b>	<b>Found in</b>
7. Provide written comments on the Overview and Survey Reports, if available, from the applicable SHPOs, THPOs, and land-managing agencies.	Section 4.3.
8. Provide a Summary Table of completion status of cultural resource surveys, and applicable SHPO or THPO and land-managing agency comments on the reports.	Section 4.2.
9. Provide a Summary Table of identified cultural resources, and applicable SHPO or THPO and land-managing agency comments on the eligibility recommendations for those resources.	Section 4.3.
10. Provide a brief summary of the status of federally recognized Indian tribe contact, including copies of all related correspondence and records of verbal communications.	Section 4.2.
11. Provide a brief summary of comments received from stakeholders regarding cultural resources.	Section 4.2.
12. Provide a schedule for completing any outstanding cultural resource studies.	Section 4.3.
13. Provide an Unanticipated Discoveries Plan for the project area, referencing appropriate state statutes.	Section 4.4 and Appendix 4-C.



# Table of Contents

Cultural Resources ..... 4-1

    4.1 Introduction ..... 4-1

    4.2 Initial Cultural Resources Consultation ..... 4-1

        4.2.1 Consultation with the SHPOs ..... 4-2

        4.2.2 Consultation with Native American Tribes ..... 4-3

        4.2.3 Consultation with Other Consulting Parties or Agencies ..... 4-16

    4.3 Cultural Resources Investigations ..... 4-16

        4.3.1 Previously Identified Cultural Resources ..... 4-19

        4.3.2 Archaeological Survey Results ..... 4-21

        4.3.3 Historic Architectural Survey Results ..... 4-30

    4.4 Unanticipated Discoveries Plan for Cultural Resources ..... 4-33

    4.5 References ..... 4-33

Tables

    4.2-1 Summary of Tribal Consultation ..... 4-3

    4.3-1 Incomplete Cultural Resource Survey Status ..... 4-18

    4.3-2 Previously Identified Cultural Resources within the APE ..... 4-20

    4.3-3 Archaeological Resources Identified within the APE ..... 4-22

    4.3-4 Historic Architectural Resources Identified within the APE ..... 4-30

Appendices

    4-A Illinois Cultural Resources Report  
CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE

    4-B Missouri Cultural Resources Report  
CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE

    4-C Unanticipated Discoveries Plans for Illinois and Missouri

    4-D Missouri Phase II Report: Site 23SC2219  
CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE



## Acronyms and Abbreviations

APE	Area of Potential Effect
CFR	Code of Federal Regulations
FERC	Federal Energy Regulatory Commission
IHPA	Illinois Historic Preservation Agency
M&R	Metering and Regulating
MO SHPO	Missouri State Historic Preservation Office
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
Project	Spire STL Pipeline Project
SHPO	State Historic Preservation Office
Spire	Spire STL Pipeline LLC
STPs	shovel test pits
USGS	United States Geological Survey



## Cultural Resources

Spire STL Pipeline LLC (“Spire”) proposes to construct and operate the Spire STL Pipeline Project (“Project”) to be located in Scott, Greene, and Jersey Counties, Illinois, and St. Charles and St. Louis Counties, Missouri. Resource Report 4 addresses the nature and significance of cultural resources, including archaeological sites and historic properties within the Area of Potential Effect (“APE”) for the Project. It also summarizes agency and Native American consultations, methods and results of investigations, newly identified resources, and plans for addressing the potential for unanticipated discoveries of cultural resources and/or human remains during Project-related activities.

### 4.1 Introduction

Cultural resource investigations for the Project were conducted in compliance with Section 106 [36 Code of Federal Regulations (“CFR”) 800] of the National Historic Preservation Act (“NHPA”) requiring all federal agencies, including the Federal Energy Regulatory Commission (“FERC”), to take into account, prior to authorizing an undertaking (e.g., the issuance of a FERC Certificate), the effect of that undertaking on cultural resources listed in or eligible for listing in the National Register of Historic Places (“NRHP”) (NRHP; 36 CFR 60). The NHPA and federal regulations also require federal agencies to consult with the appropriate State Historic Preservation Office (“SHPO”) and federally recognized Native American tribal organizations for undertakings with potential to affect NRHP-listed or NRHP-eligible properties. Spire has initiated consultation with the Illinois Historic Preservation Agency (“IHPA”), Missouri SHPO (“MO SHPO”), and federally recognized tribes. A summary of correspondence to date is described in Section 4.2. Copies of correspondence are included in Resource Report 1, Appendix 1-C. Further correspondence received from the IHPA, MO SHPO, or Native American tribes is provided in Appendix 1-C.

Spire coordinated with landowners for access to the Project areas for the completion of cultural resource surveys. As the Project crosses a primarily agricultural landscape, cultural resource surveys were generally completed after harvest where access was granted. A summary of the methodologies and results of the cultural resource surveys performed to date is provided in Section 4.3, along with the results of preliminary background research of previously identified cultural resources. Phase I Cultural Resources Reports for each state are contained in Volume IV-Privileged, Appendices 4-A and 4-B.

### 4.2 Initial Cultural Resources Consultation

This section contains a summary of the cultural resources consultations with the IHPA, MO SHPO, federally recognized tribes, and other consulting parties and agencies that have occurred for the Project. A complete record of agency and tribal correspondence is provided in Resource Report 1, Appendix 1-C.



#### 4.2.1 Consultation with the SHPOs

Spire met with the IHPA to introduce the Project on June 21, 2016. The IHPA confirmed that surveys would be required and provided guidance for the survey methods. Spire also provided the agency with a notice commencing the initiation of the FERC pre-filing process and an invitation to attend the Project's open houses on July 29 and August 5, 2016, respectively. On August 4, 2016, the IHPA provided a letter (IHPA Log #005080216) formally requesting a Phase I archaeological reconnaissance survey to locate, identify, and record archaeological resources within the Project area. The IHPA also requested photographs of structures in or adjacent to the Project area. Written initial consultation with the IHPA was submitted on August 29, 2016. Copies of the Unanticipated Discoveries Plan for Cultural Resources and Resource Report 4 were provided to the IHPA on October 28 and November 1, 2016. On November 7, 2016, Spire had a telephone conversation with the IHPA to discuss an approach for architectural reporting for the Illinois portion of the Project. On December 13, 2016, the IHPA attended an Illinois interagency meeting led by Spire. On January 26, 2017, a Phase I cultural resources report, an archaeological survey short report, and archaeological site forms were submitted for IHPA review and comment. Spire provided a Project Update Letter on March 28, 2017. A revised Unanticipated Discoveries Plan was submitted to IHPA on April 10, 2017. The Addendum I-Phase I Archaeological Survey Report was submitted to the IHPA on April 21, 2017.

Spire met with the MO SHPO to introduce the Project on July 8 and August 3, 2016. The MO SHPO confirmed that surveys would be required and provided guidance for the survey methods. Spire also provided the agency with a notice commencing the initiation of the FERC pre-filing process and an invitation to attend the Project's open houses on July 29 and August 5, 2016, respectively. Written initial consultation with the MO SHPO was submitted on August 29, 2016. In a series of email discussions with the MO SHPO occurring between September 12 and October 3, 2016, the topic arose of the location and terminus of the Katy Trail (a NRHP-eligible site). Kim Dillon (Cultural Resources Management Section Chief, Missouri State Parks) sent Spire information from Melanie Robinson-Smith (Assistant District Supervisor, Katy Trail/Rock Island Trail Coordinator, Missouri State Parks, Northern Parks District) stating the trail has not been extended east beyond the Machens trailhead. The termination point is near Machens Road. At its nearest point, the Katy Trail is approximately 0.7 miles southwest of the Project's APE. The Project will therefore avoid the trail, and no impacts to the trail are anticipated from construction or operation of the Project.

In a September 20, 2016 email, the MO SHPO was provided with an updated list of correspondence with Native American Tribes for the Project. Copies of the Unanticipated Discoveries Plan for Cultural Resources and Resource Report 4 were provided to MO SHPO on October 28 and November 1, 2016.

On November 15, 2016, Spire conducted a telephone conversation with the MO SHPO to discuss an approach for architectural reporting for the Missouri portion of the Project. Additionally, on November 15, 2016, Spire conducted a telephone meeting regarding the proposed pipeline routing near Site SL64. On November 17, 2016, the MO SHPO provided Spire with comments on the Unanticipated Discoveries Plan for Cultural Resources and Resource Report 4.



On January 26, 2017, a Phase I archaeological survey report, an architectural and historical resources reconnaissance report, and a Section 106 survey memo were submitted for MO SHPO review and comment. The MO SHPO replied to this submission in a letter dated March 23, 2017, and Spire then provided a Project Update Letter to them on March 28, 2017. A revised Unanticipated Discoveries Plan was submitted to the MO SHPO on April 10, 2017. The Addendum I-Phase I Archaeological Survey Report and Site 23SC2219 Phase II report were submitted to the MO SHPO on April 21, 2017.

#### 4.2.2 Consultation with Native American Tribes

The Project does not occur within any property defined as Native American reservation or tribal lands. However, Spire coordinated with the SHPOs and other federal and state agencies to identify federally recognized Native American tribal organizations that may have an interest in the Project area. Summarized in Table 4.2-1, Spire has provided information to 31 tribes.

**Table 4.2-1. Summary of Tribal Consultation**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Absentee-Shawnee Tribe of Indians of Oklahoma	Tribal Historic Preservation Officer	Mr. Leonard Longhorn	6/30/2016	Telephone Message	Left a detailed message with assistant (Ashley Burkholder). Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/24/2017	Telephone Message	Left a message containing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Governor	Ms. Edwina Butler-Wolfe	3/31/2017	Project Update Letter	Sent Project Update Letter
Cherokee Nation	Cultural Resources	Dr. Richard Allen	10/19/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			10/27/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			3/28/2017	Attempted Telephone Call, No Response	Called to provide project update, but there was no answer and no voicemail option.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Principal Chief and Tribal Historic Preservation Officer	Chief Bill John Baker	3/31/2017	Project Update Letter	Sent Project Update Letter
	Administration Liaison	Pat Gwynn	4/12/2017	Email	Acknowledge receipt of April 4, 2017 letter.





**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Delaware Nation		Ms. Nekole Alligood	6/30/2016	Telephone Message	Left a detailed message with assistant (Leandra). Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/24/2017	Telephone Message	Left a message containing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	President	Mr. Kerry Holton	3/31/2017	Project Update Letter	Sent Project Update Letter
	Section 106 Manager	Mr. John Ross	3/31/2017	Project Update Letter	Sent Project Update Letter
Delaware Tribe of Indians	Historic Preservation Office	Dr. Brice Obermeyer	6/30/2016	Attempted Telephone Call, No Response	Called twice. First attempt was disconnected before anyone answered. Second attempt, no answer and no voicemail system available.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/24/2017	Telephone	Discussion providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Chief	Chief Chet Brooks	3/31/2017	Project Update Letter	Sent Project Update Letter
Eastern Shawnee Tribe of Oklahoma	Cultural Preservation Director	Ms. Robin Dushane	6/30/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/24/2017	Telephone Message	Left a message containing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Chief	Chief Glenna J. Wallace	3/31/2017	Project Update Letter	Sent Project Update Letter



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Ho-Chunk Nation	Tribal Historic Preservation Officer	Mr. Bill Quackenbush	10/19/2016	Telephone	Introduced the Project. Mr. Quackenbush prefers digital documents and is hoping for at least a 30-day review period.
			10/27/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			10/28/2016	Notice of Pre-filing Letter, courtesy digital copy by email	Sent Notice of Pre-filing Letter, courtesy follow up copy by email
			1/31/2017	Phase I Reports	Sent the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
			3/28/2017	Telephone	Left a message for Mr. Quackenbush containing an update to cultural resources studies with a staff member.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	4/13/2017	Email	Email regarding project update		
	President	Mr. Wilford Cleveland	3/31/2017	Project Update Letter	Sent Project Update Letter
Iowa Tribe of Kansas and Nebraska	Tribal Historic Preservation Officer	Mr. Lance M. Foster	6/30/2016	Telephone	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			7/6/2016	Telephone	Mr. Foster returned call. He is likely to accept the invitation to be a Consulting Party once he reviews mapping from formal correspondence. Wants to receive archaeological reports and notification if human burials or village sites are encountered.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			1/31/2017	Phase I Reports	Sent the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
			3/27/2017	Telephone Message	Left a message containing an update to cultural resources studies.
	3/31/2017	Project Update Letter	Sent Project Update Letter		
	Chairman	Mr. Timothy Rhodd	3/31/2017	Project Update Letter	Sent Project Update Letter
Iowa Tribe of Oklahoma	Division Director	Mr. Patrick Durham	6/30/2016	Telephone	Introduced the Project. Mr. Durham is only concerned if human remains are identified. He would like to review the initial information via a letter.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/27/2017	Telephone Message	Left a message containing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
Iowa Tribe of Oklahoma (Continued)	Chairman and Tribal Historic Preservation Officer	Mr. Bobby Walkup	3/31/2017	Project Update Letter	Sent Project Update Letter



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments	
Kaw Indian Nation of Oklahoma	Museum Director	Ms. Crystal Douglas	6/30/2016	Telephone	Introduced the Project. Initial letter should go to Jacquyn Secondine Hensley and copy Ms. Douglas. Subsequent info can go to Ms. Douglas with a copy to Ms. Hensley. All correspondence should be emailed as PDF document, if possible.	
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter	
			12/19/2016	Telephone	Informed Ms. Douglas that fieldwork has been completed, per request. Ms. Douglas has requested to receive and review the draft Phase I report.	
			1/31/2017	Phase I Reports	Sent the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.	
			3/27/2017	Telephone	Discussion to provide an update to cultural resources studies.	
			3/29/2017	Email	Sent email confirming that, to date, no human remains have been encountered during cultural resources investigations, as requested.	
			3/31/2017	Project Update Letter	Sent Project Update Letter	
	4/7/2017	Telephone	Call to begin scheduling a face to face meeting, tentatively in July.			
	Chairman	Ms. Jacquyn Secondine Hensley	8/9/2016	Notice of Pre-filing Letter, courtesy follow up copy by email	Sent Notice of Pre-filing Letter, courtesy follow up copy by email.	
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter	
			8/30/2016	Telephone	Left a voicemail regarding Ms. Hensley's request to Spire that a meeting be setup to discuss the project and consultation process.	
			9/6/2016	Email	Sent email to ask about available dates for the requested meeting with Spire and the FERC.	
			9/21/2016	Telephone	Ms. Douglas requests to participate in any tribal meetings and would like conference call after cultural surveys are completed to discuss results.	
			3/31/2017	Project Update Letter	Sent Project Update Letter	
Kickapoo Tribe in Kansas	NAGPRA Director	Ms. Nellie Cadue	6/30/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.	
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter	
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter	
			Mr. Eric Sheets	3/27/2017	Telephone	Discussion to provide an update to cultural resources studies.
	Chairman	Mr. Lester Randal	3/31/2017	Project Update Letter	Sent Project Update Letter	
Kickapoo Tribe in Kansas (Continued)	Tribal Council member	Ms. Bernadette Thomas	3/31/2017	Project Update Letter	Sent Project Update Letter	



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments	
Kickapoo Traditional Tribe of Texas	Director	Mr. Juan Garza, Jr.	6/30/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.	
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter. Delivery was refused.	
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter	
			3/27/2017	Telephone Message	Left a message containing an update to cultural resources studies.	
			3/31/2017	Project Update Letter	Sent Project Update Letter	
Kickapoo Tribe of Oklahoma	Attorney/ Preservation Rep	Mr. Kent Collier	6/30/2016	Attempted Telephone Message	No answer and no voicemail system available.	
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter	
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter	
			3/27/2017	Telephone	Discussion to provide an update to cultural resources studies.	
	3/31/2017	Project Update Letter	Sent Project Update Letter			
	Chairman	Mr. Gilbert Salazar	3/31/2017	Project Update Letter	Sent Project Update Letter	
Match-e-be-nash-she-wish Band of Potawatomi Indians of Michigan	Tribal Historic Preservation Officer	Mr. DJ Hoffman	10/19/2016	Telephone	Spoke with THPO staff and asked to leave a detailed message on THP Officer's voicemail. Introduced the Project and offered invitation to call back.	
			10/27/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter. Returned, unable to forward.	
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.	
			3/31/2017	Project Update Letter	Sent Project Update Letter	
		Tribal Historic Preservation Officer	Ms. Sydney Martin	3/31/2017	Project Update Letter	Sent Project Update Letter
		Chairman	Mr. Scott Srague	3/31/2017	Project Update Letter	Sent Project Update Letter



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Miami Tribe of Oklahoma	Acting Tribal Historic Preservation Officer	Ms. Diane Hunter	6/30/2016	Telephone	Introduced the Project. Ms. Hunter requests that all correspondence be emailed.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/9/2016	Notice of Pre-filing Letter, courtesy follow up copy by email	Sent Notice of Pre-filing Letter, courtesy follow up copy by email
			8/12/2016	Email	Received a request from Ms. Hunter to be a Consulting Party.
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/7/2017	Telephone	Confirmed with Ms. Hunter that the request for Consulting Party status was received and summarized the results of Phase I survey. Ms. Hunter requested reports be sent in PDF format.
			3/7/2017	Phase I Reports	Resubmittal of the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
	3/31/2017	Project Update Letter	Sent Project Update Letter		
	Chief	Chief Douglas Lankford	3/31/2017	Project Update Letter	Sent Project Update Letter
Osage Nation	Archaeologist	Mr. John Fox	6/30/2016	Telephone	Introduced the Project. Mr. Fox will review the letter before responding.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			8/16/2016	Letter to FERC	Mr. Fox sent a letter to FERC requesting to be a Consulting Party and have a meeting with Spire and FERC.
			8/18/2016	Telephone	Called Mr. Fox regarding his letter to FERC requesting to be a consulting party and for Spire and FERC to organize a tribal consultation meeting. Mr. Fox will get back to us regarding the type of meeting he is requesting.
			9/6/2016	Email	Sent a follow-up email to Mr. Fox asking if he had determined a date for the requested consultation meeting with Spire and the FERC.



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Osage Nation (Continued)	Archaeologist	Mr. John Fox	12/19/2016	Telephone	Informed Mr. Fox that fieldwork has been completed, per request. Mr. Fox has requested to receive and review the draft Phase I reports.
			1/31/2017	Phase I Reports	Sent the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
			3/3/2017	Telephone	Mr. Fox wanted to clarify a letter from Dr. Hunter regarding the consulting party status of the Osage Nation.
			3/6/2017	Telephone	A call was placed to Mr. Fox to inform him that replacement reports were being sent via overnight mail.
			3/6/2017	Phase I Reports	Resubmittal of the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
	3/31/2017	Project Update Letter	Sent Project Update Letter		
	Chief	Chief Geoffrey Standing Bear	3/31/2017	Project Update Letter	Sent Project Update Letter
	Tribal Historic Preservation Officer	Dr. Andrea A. Hunter	3/31/2017	Project Update Letter	Sent Project Update Letter
Peoria Tribe of Indians of Oklahoma		Mr. Logan Pappenfort	7/1/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/28/2017	Telephone	Discussion providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
			4/13/2017	Phase I Reports	Submission of digital copies (CD) of the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report.
	Chief	Chief John P. Froman	3/31/2017	Project Update Letter	Sent Project Update Letter
	Repatriation/NAGRA Committee, Chairperson	Mr. Jason Dollarhide	3/31/2017	Project Update Letter	Sent Project Update Letter



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Ponca Tribe of Nebraska	Tribal Historic Preservation Officer	Mr. Shannon Wright	7/1/2016	Telephone	Introduced the Project. Mr. Wright is not likely to want consulting party status, but will decide when he sees maps. May only ask to have copies of reports.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			1/31/2017	Phase I Reports	Sent the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Tribal Historic Preservation Officer	Mr. Randy Teboe	3/31/2017	Project Update Letter	Sent Project Update Letter
Chairman	Mr. Larry Wright, Jr.	3/31/2017	Project Update Letter	Sent Project Update Letter	
Ponca Tribe of Oklahoma	Tribal Historic Preservation Officer	Ms. Halona Clawson	7/1/2016	Attempted Telephone Message	Called twice. No response and no voicemail system available.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Chairman	Mr. Earl S. Howe III	3/31/2017	Project Update Letter	Sent Project Update Letter
Citizen Potawatomi Nation	Assistant Tribal Historic Preservation Officer	Mr. Andrew Gourd	7/1/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Tribal Historic Preservation Officer	Dr. Kelli Mosteller	3/31/2017	Project Update Letter	Sent Project Update Letter
	Chairman	Mr. John Barrett, Jr.	3/31/2017	Project Update Letter	Sent Project Update Letter



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Forest County Potawatomi	Tribal Historic Preservation Officer	Ms. Melissa Cook	7/1/2016	Attempted Telephone Message	Called twice. No response and no voicemail system available.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
	3/31/2017	Project Update Letter	Sent Project Update Letter		
	Chairman	Mr. Harold Frank	3/31/2017	Project Update Letter	Sent Project Update Letter
Huron Potawatomi Nation	Council/Board	Ms. Robyn Burlingham	10/19/2016	Telephone	Introduced the Project. Ms. Burlingham will review the letters with members of the Board (Tribal Council).
			10/27/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies. The voicemail also mentioned the historic Potawatomi Removal Trail and the project's avoidance of the trail.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Chairman	Mr. Jamie Stuck	3/31/2017	Project Update Letter	Sent Project Update Letter
Cultural Specialist	Ms. Mon-ee Zapata	3/31/2017	Project Update Letter	Sent Project Update Letter	
Potawatomi Nation-Hannahville Indian Community	Council/Board	Mr. Kenneth Mechigaud	7/1/2016	Attempted Telephone Message	No response and no voicemail system available.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
Hannahville Indian Community of Michigan	Council/Board	Mr. Kenneth Mechigaud	10/19/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Tribal Historic Preservation Officer	Mr. Earl Meshigaud	3/31/2017	Project Update Letter	Sent Project Update Letter





**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Pokagon Band of Potawatomi Indians	Tribal Historic Preservation Officer	Mr. Marcus Winchester	7/1/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Chairman	Mr. John Warren	3/31/2017	Project Update Letter	Sent Project Update Letter
	Tribal Historic Preservation Officer	Mr. Jason Scott Wesaw	3/31/2017	Project Update Letter	Sent Project Update Letter
Prairie Band Potawatomi Nation		Ms. Hattie Mitchell	7/1/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Chairperson	Ms. Liana Onnen	3/31/2017	Project Update Letter	Sent Project Update Letter
Quapaw Tribe of Oklahoma	Chairman	Mr. John Berrey	7/1/2016	Attempted Telephone Message	No response and no voicemail system available.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Tribal Historic Preservation Officer	Mr. Everett Bandy	8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			8/24/2016	Letter	Received letter expressing interest in St. Louis County, MO and desire to be consulting party. Also request a copy of EA document.
			1/31/2017	Phase I Reports	Sent the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Sac and Fox Tribe of the Missouri in Kansas and Nebraska	Chair	Mr. Edmore Green	7/1/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
Sac and Fox Tribe of the Mississippi in Iowa	Historic Preservation Director	Mr. Johnathan L. Buffalo	7/1/2016	Telephone	Introduced the Project. Mr. Buffalo would rather wait for official correspondence and asked that correspondence be sent digitally. He will likely choose to be a consulting party, since sensitive areas will be crossed.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/9/2016	Notice of Pre-filing Letter, courtesy follow up copy by email	Sent Notice of Pre-filing Letter, courtesy follow up copy by email.
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			1/31/2017	Phase I Reports	Sent the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
			3/28/2017	Telephone	Discussion to provide an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
			4/13/2017	Email	Providing GAI cultural resource manager contact information
	Chief	Chief Troy Wanatee	3/31/2017	Project Update Letter	Sent Project Update Letter
Sac and Fox Nation of Oklahoma	Cultural Resources	Ms. Sandra Kaye Massey	7/1/2016	Telephone Message	Left a detailed voicemail. Introduced the Project and offered invitation to call back.
			7/29/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			8/16/2016	Open House Invitation Letter	Sent Open House Invitation Letter
			3/31/2017	Project Update Letter	Sent Project Update Letter
		Ms. Carol Butler	3/28/2017	Telephone	Ms. Massey is on sick leave, so a discussion with Carol Butler (her temporary replacement) occurred providing an update to cultural resources studies.
	Chief	Chief Elizabeth Kay Rhoads	3/31/2017	Project Update Letter	Sent Project Update Letter
	Repatriation/NAGPRA Committee, Chairperson	Mr. Elvis E. Ellis	3/31/2017	Project Update Letter	Sent Project Update Letter



**Table 4.2-1. Summary of Tribal Consultation (Continued)**

Agency	Title	Contact Name	Date	Correspondence Type	Additional Comments
Shawnee Tribe	Cultural Resources	Ms. Jodi Hayes	10/19/2016	Telephone Message	Spoke with receptionist and asked to leave a detailed message on Ms. Hayes' voicemail. Introduced the Project and offered invitation to call back.
			10/27/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
			3/31/2017	Project Update Letter	Sent Project Update Letter
	Chief	Chief Ron Sparkman	3/31/2017	Project Update Letter	Sent Project Update Letter
United Keetoowah Band of Cherokee Indians of Oklahoma	Tribal Historic Preservation Officer	Mr. Eric Oosahwee-Voss	10/19/2016	Telephone Message	Spoke with THPO staff and asked to leave a detailed message on THP Officer's voicemail. Introduced the Project and offered invitation to call back.
			10/27/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			1/31/2017	Phase I Reports	Sent the Illinois Phase I cultural resources report and the Missouri Phase I archaeological survey report for review and comment.
			3/28/2017	Telephone Message	Left a voicemail providing an update to cultural resources studies.
	Chief	Chief Joe Bunch	3/31/2017	Project Update Letter	Sent Project Update Letter
	Acting Tribal Historic Preservation Officer	Mr. Eric Oosahwee-Voss	3/31/2017	Project Update Letter	Sent Project Update Letter
Winnebago Tribe of Nebraska	Tribal Historic Preservation Officer	Mr. John Blackhawk	10/19/2016	Telephone Message	Spoke with THPO staff and asked to leave a detailed message on THP Officer's voicemail. Introduced the Project and offered invitation to call back.
			10/27/2016	Notice of Pre-filing Letter	Sent Notice of Pre-filing Letter
			3/28/2017	Telephone Message	Left a message for Mr. Blackhawk containing an update to cultural resources studies with a staff member.
			3/31/2017	Project Update Letter	Sent Project Update Letter
			4/10/2017	Telephone Message	Left a detailed message to offer a status of what was identified during the cultural resources studies, reiterate the offer to send copies of the survey reports, provided contact information, and to acknowledge receipt of the March 31, 2017 letter and offered to discuss.
	Tribal Historic Preservation Officer	Mr. Henry Payer	3/31/2017	Project Update Letter	Sent Project Update Letter
			4/10/2017	Telephone Message	Left a detailed message to offer a status of what was identified during the cultural resources studies, reiterate the offer to send copies of the survey reports, provided contact information, and to acknowledge receipt of the March 31, 2017 letter and offered to discuss.



Spire attempted to contact each tribe by telephone to introduce the Project in June 2016 and October 2016. A letter providing information on the Project and a notice of the initiation of the FERC pre-filing process was submitted to each Tribe. Copies of these letters were provided by email when requested. Invitations to the open houses and FERC scoping sessions were submitted in August and October 2016.

On August 12, 2016, the Miami Tribe of Oklahoma notified Spire of their intent to serve as a consulting party. The Miami Tribe of Oklahoma also submitted a comment to FERC in a letter on September 14, 2016. The Miami Tribe does not have an objection to the Project at this time, as they are not currently aware of specific sites in the Project area, and request immediate consultation should a discovery under the Native American Graves Protection and Repatriation Act occur. On August 9, 2016, a digital copy of the July 29, 2016 correspondence was emailed to the Miami Tribe of Oklahoma, per request.

In an August 16, 2016 email, the Osage Nation notified Spire of their intent to serve as a consulting party and requested a consultation meeting. On the same date, this was also submitted as a comment letter to FERC. Spire contacted the tribe via telephone and email, and is awaiting further coordination on the request for a meeting.

The Quapaw Tribe of Oklahoma sent a letter on August 24, 2016, requesting consulting party status for portions of the Project in St. Louis County, Missouri.

On August 9, 2016, a digital copy of the July 29, 2016 correspondence was emailed to the Kaw Indian Nation of Oklahoma, per request. On September 22, 2016, Spire received a telephone call from the Kaw Indian Nation of Oklahoma requesting to be included in any tribal meetings related to the Project and requested a conference call to discuss the results of the cultural resource investigations. Spire discussed the results of the cultural resource investigations with the Kaw Indian Nation of Oklahoma on December 19, 2016.

On August 9, 2016, a digital copy of the July 29, 2016 correspondence was delivered to the Sac and Fox Tribe of the Mississippi in Iowa of Oklahoma, per request.

Spire submitted its initial Phase I Cultural Resources Reports in January 2017 to the tribes who have requested copies. Supplemental information will also be provided upon the completion of additional cultural resource investigation. Spire will continue to coordinate with the tribes. Further correspondence with the Native American tribes is provided in Appendix 1-C. Spire has conducted field surveys in additional Project areas and where landowner permission has been obtained. The Addendum I-Phase I Archaeological Survey Reports are provided in Volume IV – Privileged, Appendices 4-A and 4-B. Copies of these reports will be provided to the tribes who have requested copies in April 2017.

In consultation with FERC, the Huron Potawatomi Nation discussed the location of the historic Potawatomi Removal Trail in proximity of the Project area. Records show that the trail is located between four and eight miles to the north of the Spire pipeline's northern terminus and will therefore not be impacted by the proposed Project (Algonkian Church History 2009; Legends of America 2011; Miami County Historical Museum 2017; Potawatomi Trail of Death 2017). On March 28, 2017, this information was provided to the Huron Potawatomi Nation for further confirmation. To date, no response has been received.



### **4.2.3 Consultation with Other Consulting Parties or Agencies**

In a letter dated March 10, 2017, Spire provided a letter to the National Park Service addressing concerns of the Project's impact to the Lewis and Clark National Historic Trail ("the Trail") and Auto Tour route. Spire reviewed the Trail route (essentially the Missouri River), as well as Lewis and Clark historic destinations in the vicinity of the Project area. The trail will be avoided by the horizontal directional drill proposed at the Missouri River crossing.

## **4.3 Cultural Resources Investigations**

Background research and investigations were completed for all accessible portions of the 24-inch pipeline and the North County Extension. The APE for the Project consists of a 300-foot-wide study corridor centered on the proposed pipeline route, a 100-foot-wide study corridor for each access road, the footprint of three new Project metering and regulating ("M&R") facilities, mainline valve locations, cathodic protection systems, and the proposed staging areas.

A systematic Phase I archaeological survey was conducted in those portions of the proposed APE determined to contain moderate-to-high potential for yielding archaeological sites. Per the current accepted guidelines for Illinois and Missouri, previously plowed areas exhibiting at least 25 percent ground surface visibility were surface collected by walking five-meter intervals to look for exposed artifacts. This was supplemented by excavating shovel test pits ("STPs") in small areas where surface visibility drops below the accepted visibility threshold, and to define archaeological sites and site boundaries, as well as to obtain representative soil profile data for recovered sites. In areas that have not been plowed, or in large areas where surface visibility was below the 25 percent visibility threshold at the time of the study, subsurface testing was conducted by excavating STPs at 15-meter intervals along transects spaced 15 meters apart. This methodology was extended to all areas of the Project interpreted to have a moderate/high potential for site discovery. Per the state guidelines, each STP measured at least 40 centimeters in diameter in Illinois, and at least 25 centimeters in diameter in Missouri. STPs were excavated until culturally sterile subsoil was reached, or to an average depth of 60 centimeters below the existing ground surface. Where culturally sterile subsoil was not reached, initial geomorphological assessments were conducted. Excavated soil was screened through one-quarter-inch mesh to allow for systematic artifact recovery. If artifacts were recovered in STPs, radial STPs placed at five-meter intervals were excavated around the perimeter of the cluster of positive STPs to more accurately define archaeological site boundaries, per state guidelines.

Portions of the 24-inch pipeline were located on floodplains that may have potential to contain buried soils. The soil geomorphology evaluation took place across floodplains at Apple and Macoupin Creeks, and between the Mississippi River and the Missouri River. The purpose of the field visit was to evaluate the valley floor landscapes at the crossings for the potential of deeply buried cultural resources and to provide a geoarchaeological context for any artifacts found at the crossing. The field visit included a reconnaissance walkover followed by examination of hand-auger soundings collected with a three-inch-diameter bucket auger at 11 selected locations. Auger locations were mapped with a handheld GPS device. Soil/sediment samples were collected and interpreted in the field by a geomorphologist. Descriptions included Munsell color, field texture, soil horizonation, and structure, as



well as the presence of artifacts or organics. According to the results of the Phase I geoarchaeological study, the potential for deeply buried cultural resources in the Project area is not anticipated, and further soil assessment is therefore not recommended.

Based on guidance from the IHPA, Spire completed a historic architectural survey within one-eighth mile of the 24-inch pipeline in Illinois. Based on guidance from the MO SHPO, Spire completed a historic and architectural survey within the APEs for the proposed North County Extension and the 24-inch pipeline in Missouri, and resources directly adjacent to the proposed limits of disturbance. Architectural survey will serve to document the current conditions of previously recorded architectural resources and identify previously unrecorded architectural resources, including buildings, objects, structures, sites, or districts within the APE that are 50 years old or older. These resources were photographed with a digital camera and recorded from the public right-of-way or project APE, noting architectural style, condition, and important features. Architectural historians also noted major changes or alterations as visible from the right-of-way, and individually mapped each property on United States Geological Survey (“USGS”) maps. Photographs towards the proposed Project from each resource were also obtained.

Following field surveys, identified architectural properties were assessed for integrity and potential significance according to the NRHP Criteria of Evaluation, the historic context developed for this Project, and *National Register Bulletin 15-How to Apply the National Register Criteria of Evaluation* and *National Register Bulletin 30-Guidelines for Criteria for Evaluation and Documenting Rural Historic Landscapes*. Boundaries for potentially eligible historic resources and/or historic districts are developed in accordance with *National Register Bulletin 21-Defining Boundaries for National Register Properties*. Potential effects of the proposed Project on potential NRHP-eligible resources were also assessed.

Phase I archaeological surveys and reconnaissance for historic architectural resources were conducted generally following crop harvest. Field studies were conducted of the 24-inch pipeline between October 5 and December 10, 2016, while surveys were conducted on the North County Extension between February 1 and March 3, 2017. Those areas where cultural resources investigations are incomplete are provided in Table 4.3-1. Areas where Cultural Resource surveys have not been completed will be conducted once landowner permission has been obtained, Spire will then supplement that information to the respective agencies and Native American Tribes. Mapping of these locations are provided in the initial Phase I technical reports (submitted in January 2017) and the Addendum I-Phase I Archaeological Survey Reports (provided in Volume IV – Privileged, Appendices 4-A and 4-B). Results of the additional cultural resource investigations conducted in 2017 are also provided in the Addendum I-Phase I Archaeological Survey Reports. Follow-up surveys on currently inaccessible properties will be conducted once landowner permission has been obtained. Results of future cultural resource investigations will be provided as supplemental information to FERC and each SHPO upon completion.

Methods and results of the Phase I survey of accessible Project areas, including Project maps, graphics, and photographs, in accordance with SHPO’s guidelines, have been developed within and are provided in Volume IV – Privileged, Appendices 4-A and 4-B . The initial Phase I reports were submitted to the IHPA and the MO SHPO in



January 2017, while the Addendum I-Phase I Archaeological Survey Reports of alternatives and reroutes were submitted in April 2017.

**Table 4.3-1. Incomplete Cultural Resource Survey Status**

Facility/County, State	Approximate Milepost ("MP") In	Approximate MP Out	Reason for Incomplete Survey <sup>1</sup>	Survey Need
<b>24-Inch Pipeline</b>				
Greene County, Illinois	9.1	9.2	Pending Survey (crop restrictions; survey after harvest)	New ATWS
Greene County, Illinois	9.7	10.3	Pending Survey Data	Centerline
Greene County, Illinois	19.6	19.6	Pending Survey Data	New ATWS
Greene County, Illinois	25.7R	25.8R	Pending Survey Data	Centerline
Greene County, Illinois	25.8R	25.8R	Pending Survey Data	Access Road
Greene County, Illinois	26.1	26.1	Pending Survey Data	Access Road
Greene County, Illinois	29.2	29.3	Pending Survey Data	Centerline
Jersey County, Illinois	32.4	32.9	Pending Survey Permission	Centerline
Jersey County, Illinois	34.2	34.2	Pending Survey Data	New ATWS
Jersey County, Illinois	36.6R	36.9R	Pending Survey Data	Centerline
Jersey County, Illinois	40.2R	40.3	Pending Survey Permission	Centerline
Jersey County, Illinois	40.3	41.1	Pending Survey Data	Centerline and Access Road
Jersey County, Illinois	41.8	43.7R	Pending Survey Data	Centerline
Jersey County, Illinois	43.1	43.5	Pending Survey Data	Centerline
Jersey County, Illinois	43.9	45.1	Pending Survey Permission	Centerline, New ATWS, and Access Road
St. Charles County, Missouri	48.6	48.7	Pending Survey Permission	Centerline
St. Charles County, Missouri	54.1	54.5	Pending Survey Data	Centerline



**Table 4.3-1. Incomplete Cultural Resource Survey Status (Continued)**

Facility/County, State	Approximate MP In	Approximate MP Out	Reason for Incomplete Survey <sup>1</sup>	Survey Need
<b>North County Extension</b>				
St. Louis County, Missouri	0.3	0.3	Pending Survey Data	Centerline
St. Louis County, Missouri	1.3	1.4	Pending Survey Data	Centerline
St. Louis County, Missouri	1.9	2.0	Pending Survey Data	Centerline
St. Louis County, Missouri	2.0	2.3	Pending Survey Permission	Centerline
St. Louis County, Missouri	2.3	2.5	Pending Survey Data	Centerline and Access Road
St. Louis County, Missouri	2.5	2.5	Pending Survey Permission	Centerline (north centerline and workspaces)
St. Louis County, Missouri	2.5	2.7	Pending Survey Data	Centerline
St. Louis County, Missouri	2.7	3.9	Pending Survey Permission	Centerline (sporadic testing between MP 3.0 and 3.2), Centerline (outside construction ROW), and ATWS
St. Louis County, Missouri	3.9	4.9	Pending Survey Data	Centerline, Access Road, and Cathodic Protection
St. Louis County, Missouri	5.2	5.3	Pending Survey Data	Centerline
<b>Total Survey Remaining</b>	<b>3.5 Miles (approximate)<sup>2</sup></b>		-	-

Notes

- <sup>1</sup> Pending Survey Permission - landowners at parcels have not granted cultural resources survey permission at this time; Pending Survey Data – area has been surveyed recently and survey data is currently being processed; Pending Survey – landowner permission granted but inaccessible due to crop restrictions.
- <sup>2</sup> Total survey miles remaining includes areas "pending survey permission" and "pending survey"; the total does not include "pending survey data" mileage for which survey is already complete.

### 4.3.1 Previously Identified Cultural Resources

Background research was completed on the APE for the Project to gather information from previous cultural resource investigations and on known archaeological sites and historic architectural properties. Background research was acquired through an inventory search at the IHPA and MO SHPO offices. Additional online inventories were accessed by the use of the Inventory of Illinois Archaeological Sites Flex Archaeology Viewer, Illinois CRM Report Archive Database, and MO SHPO’s Historic Districts and Sites viewer and Archaeology Viewer. Cultural resources previously identified within the APE are described in Table 4.3-2.





**Table 4.3-2. Previously Identified Cultural Resources within the APE**

Site # <sup>1</sup>	Site Name	County	Topography	Temporal Period	Site Type	NRHP Status	Avoided (Y or N)	Treatment
<b>Illinois</b>								
11ST499	-	Scott	Upland Ridge	Unknown Precontact	Habitation	Not Eligible	N	No further studies
11GE18	Charles Eby Site	Greene	Terrace	Unknown Precontact	Habitation	Not Eligible	N	No further studies
11GE307 <sup>2</sup>	One Ceramic Site	Greene	Terrace	Late Woodland	Habitation	Previously recommended for Phase II	N	No artifacts recovered; No adverse effect; No further study
<b>Missouri</b>								
23SC5	-	St. Charles	-	-	Indian Trail	Destroyed	N	No evidence during Phase I study; No adverse effect; No further study
23SC1057	-	St. Charles	Floodplain Ridge	Early Industrial; Urban Industrial	Habitation	Portion Recommended Not Eligible	Y	No artifacts recovered; No adverse effect; No further study
23SL522 <sup>3</sup>	-	St. Louis	Hill	Unknown Precontact; Unknown Historic	Lithic Scatter; Habitation	Unevaluated	N	No artifacts recovered; No adverse effect; No further study
23SL523 <sup>3</sup>	-	St. Louis	Hill	Unknown Precontact; Early Industrial	Habitation	Unevaluated	Y	No artifacts recovered; No adverse effect; No further study
23SL524 <sup>3</sup>	-	St. Louis	Hill	Unknown Precontact	Habitation	Unevaluated	Y	Archaeological study identified one small cluster of artifacts; No adverse effect; No further studies.
23SL157 <sup>3</sup>	Lavien Site	St. Louis	Ridge	Archaic	Habitation	Unevaluated	N	No artifacts recovered; No adverse effect; No further study
23SL158 <sup>3</sup>	Tuco Site	St. Louis	Ridge	Archaic	Habitation	Unevaluated	N	No artifacts recovered; No adverse effect; No further study

Notes:

- <sup>1</sup> No remains of previously recorded sites were identified at the M&R station locations.
- <sup>2</sup> Within access road APE.
- <sup>3</sup> Site occurs along the North County Extension.



Ten previously identified archaeological sites extend into the defined APE. No historic or architectural resources are located within the Project's direct APE. Three of these archaeological resources are located in Scott and Greene Counties, Illinois, while the remaining seven resources are within St. Charles and St. Louis Counties, Missouri. One of these archaeological sites has been recommended for Phase II archaeological testing, two have been previously determined as Not Eligible for listing in the NRHP, portions of one site were previously recommended not eligible, one site is recorded as being destroyed, and the remaining five sites have not been evaluated for NRHP eligibility. Spire conducted Phase I archaeological studies at each of these 10 previously recorded site locations. One small cluster of artifacts was identified along one site (23SL524). The remaining nine previously recorded sites were unidentified within the Project APE during Phase I survey.

Site 11GE307 is situated on a terrace in a cultivated field. A portion of the site is crossed by a proposed access road for the current Project. This site was identified in 1995 during a survey by the Center for American Archeology for a proposed four lane highway. The site is a small artifact scatter of lithic flakes and one precontact ceramic, dating the site from the Late Woodland. Site 11GE307 was previously recommended for Phase II archaeological testing. However, since no artifacts were encountered during the surveys conducted on the Project, no additional study is recommended.

Two previously recorded archaeological sites (11GE18 and 11ST499) in Illinois were determined to be Not Eligible for listing in the NRHP. One of these resources (11ST499) was identified as a result of previous archaeological surveys. Both sites have an unknown precontact temporal affiliation.

Site 23SC1057 was identified in Missouri during a Phase I survey for the Keystone Pipeline Project in 2016. The portions of the site located within the study corridor of the Keystone Pipeline Project were determined to be Not Eligible for listing in the NRHP. This recorded site's boundaries will be avoided by the Project construction right-of-way.

Site 23SC5 in Missouri is a Sioux Indian trail that is recorded as being destroyed. Systematic Phase I archaeological studies did not find evidence of an existing trail in the recorded location. This area is currently an active agricultural field.

The remaining five previously recorded archaeological sites (23SL157, 23SL158, 23SL522, 23SL523, and 23SL524) are located in Missouri and remain unevaluated for NRHP eligibility.

Three historic districts are located within a one-mile radius of the proposed Project. The Principia College Historic District is a National Historic Landmark and is situated approximately 0.8 mile from the APE. The Elsay Historic District is listed in the NRHP and is situated approximately 0.16 mile from the APE. The Chautauqua Historic District is also listed in the NRHP and located approximately 0.4 mile from the APE.

### **4.3.2 Archaeological Survey Results**

Spire conducted archaeological field surveys of the 24-inch pipeline between October 5 and December 10, 2016, and conducted surveys along the North County Extension between February 1 and March 3, 2017. Archaeological



resources identified within the APE are provided as Table 4.3-3. The initial Phase I survey reports and Addendum I survey reports are provided in Volume IV – Privileged, Appendices 4-A and 4-B.

**Table 4.3-3. Archaeological Resources Identified within the APE**

Facility, County, and Resource ID	Site ID #	Resource Type	Temporal Affiliation	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline</b>							
<i>Scott County, Illinois</i>							
FD#203	11ST622	Site	Precontact	Not Eligible	N	No further study	TBD
FD#202	11ST621	Site	Precontact	Not Eligible	N	No further study	TBD
FD#201	11ST620	Site	Precontact	Not Eligible	N	No further study	TBD
FD#200	11ST619	Site	Precontact	Not Eligible	N	No further study	TBD
FD#199	11ST618	Site	Precontact	Not Eligible	N	No further study	TBD
FD#204	11ST623	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#198	11ST617	Site	Precontact	Not Eligible	N	No further study	TBD
FD#1	11ST603	Site	Precontact	Not Eligible	N	No further study	TBD
FD#2	11ST604	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#5	11ST612	Site	Precontact	Not Eligible	N	No further study	TBD
FD#6	11ST614	Site	Precontact	Not Eligible	N	No further study	TBD
FD#7	11ST616	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#8	11ST606	Site	Precontact	Not Eligible	N	No further study	TBD
FD#9	11ST608	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#10	11ST609	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#11	11ST607	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#12	11ST611	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#13	11ST610	Site	Precontact	Not Eligible	N	No further study	TBD
FD#14	11ST605	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#205	11ST624	Site	Precontact	Not Eligible	N	No further study	TBD
FD#206	11ST625	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#207	11ST626	Site	Precontact	Not Eligible	N	No further study	TBD
FD#208	11ST627	Site	Precontact	Not Eligible	N	No further study	TBD
<i>Greene County, Illinois</i>							
FD#209	11ST628	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#210	11GE822	Site	Precontact	Not Eligible	N	No further study	TBD
FD#211	11GE812	Site	Precontact	Not Eligible	N	No further study	TBD



**Table 4.3-3. Archaeological Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Site ID#	Resource Type	Temporal Affiliation	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline (continued)</b>							
<i>Greene County, Illinois (continued)</i>							
FD#15	11GE752	Site	Precontact	Not Eligible	N	No further study	TBD
FD#16	11GE728	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#17	11GE727	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#19	11GE804	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#18	11GE729	Site	Precontact	Not Eligible	N	No further study	TBD
FD#20	11GE808	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#21	11GE719	Site	Precontact	Not Eligible	N	No further study	TBD
FD#22	11GE726	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#24	11GE807	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#23	11GE725	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#25	11GE806	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#26	11GE805	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#27	11GE720	Site	Precontact	Not Eligible	N	No further study	TBD
FD#28	11GE721	Site	Precontact	Not Eligible	N	No further study	TBD
FD#29	11GE722	Site	Precontact	Not Eligible	N	No further study	TBD
FD#30	11GE730	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#31	11GE734	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#32	11GE733	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#33	11GE736	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#34	11GE735	Site	Precontact and Historic	Not Eligible	N	No further study	TBD
FD#35	11GE803	Site	Precontact	Not Eligible	N	No further study	TBD
FD#36	11GE759	Site	Precontact	Not Eligible	N	No further study	TBD
FD#37	11GE781	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#38	11GE783	Site	Precontact	Not Eligible	N	No further study	TBD
FD#39	11GE784	Site	Precontact	Not Eligible	N	No further study	TBD
FD#40	11GE786	Site	Precontact	Not Eligible	N	No further study	TBD
FD#41	11GE785	Site	Precontact	Not Eligible	N	No further study	TBD
FD#42	11GE787	Site	Precontact and Historic	Not Eligible	Y	No further study	TBD



**Table 4.3-3. Archaeological Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Site ID#	Resource Type	Temporal Affiliation	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline (continued)</b>							
<i>Greene County, Illinois (continued)</i>							
FD#43	11GE782	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#44	11GE788	Site	Precontact	Not Eligible	N	No further study	TBD
FD#45	11GE789	Site	Precontact	Potentially Eligible	Y	No effect; avoided by construction right-of-way; No further study	TBD
FD#46	11GE790	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#47	11GE765	Site	Precontact	Not Eligible	N	No further study	TBD
FD#48	11GE763	Site	Historic	Not Eligible	Y	No further study	TBD
FD#49	11GE760	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#50	11GE762	Site	Precontact	Not Eligible	N	No further study	TBD
FD#53	11GE791	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#54	11GE794	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#55	11GE802	Site	Precontact	Not Eligible	N	No further study	TBD
FD#56	11GE795	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#57	11GE796	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#58	11GE797	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#59	11GE798	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#60	11GE799	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#61	11GE800	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#62	11GE801	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#63	11GE793	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#64	11GE792	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#65	11GE764	Site	Precontact	Not Eligible	N	No further study	TBD
FD#66	11GE775	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#212	11GE819	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#213	11GE820	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#214	11GE747	Site	Precontact and Historic	Not Eligible	N	No further study	TBD
FD#67	11GE746	Site	Precontact and Historic	Not Eligible	Y	No further study	TBD
FD#68	11GE744	Site	Precontact	Not Eligible	N	No further study	TBD
FD#69	11GE743	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#70	11GE741	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#71	11GE742	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD



**Table 4.3-3. Archaeological Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Site ID#	Resource Type	Temporal Affiliation	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline (continued)</b>							
<i>Greene County, Illinois (continued)</i>							
FD#72	11GE740	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#73	11GE739	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#74	11GE745	Site	Precontact	Not Eligible	N	No further study	TBD
FD#75	11GE737	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#215	11GE821	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#76	11GE738	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#77	11GE768	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#78	11GE766	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#79	11GE767	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#80	11GE769	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#81	11GE731	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#82	11GE751	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#83	11GE748	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#84	11GE749	Site	Precontact	Not Eligible	N	No further study	TBD
FD#85	11GE750	Site	Precontact	Not Eligible	N	No further study	TBD
FD#86	11GE723	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#87	11GE732	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#89	11GE773	Site	Precontact and Historic	Potentially Eligible	Y	No effect; avoided by construction right-of-way; No further study	TBD
FD#91	11GE753	Site	Precontact	Not Eligible	N	No further study	TBD
FD#92	11GE754	Site	Precontact	Not Eligible	N	No further study	TBD
FD#95	11GE757	Site	Precontact	Potentially Eligible	Y	No effect; avoided by construction right-of-way; No further study	TBD
FD#216	11GE810	Site	Precontact	Not Eligible	N	No further study	TBD
FD#96	11GE758	Site	Precontact	Potentially Eligible	Y	No effect; avoided by construction right-of-way; No further study	TBD
FD#217	11GE813	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#218	11GE818	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#100	11GE779	Site	Precontact	Not Eligible	N	No further study	TBD



**Table 4.3-3. Archaeological Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Site ID#	Resource Type	Temporal Affiliation	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline (continued)</b>							
<i>Greene County, Illinois (continued)</i>							
FD#101	11GE780	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#219	11GE809	Site	Precontact	Not Eligible	N	No further study	TBD
FD#102	11GE755	Site	Historic	Not Eligible	Y	No further study	TBD
FD#103	11GE771	Site	Precontact	Not Eligible	N	No further study	TBD
FD#104	11GE770	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
<i>Jersey County, Illinois</i>							
FD#105	11JY659	Site	Historic	Not Eligible	Y	No further study	TBD
FD#106	11JY653	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#107	11JY654	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#108	11JY655	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#110	11JY658	Site	Precontact	Not Eligible	N	No further study	TBD
FD#111	11JY657	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#112	11JY656	Site	Precontact	Not Eligible	N	No further study	TBD
FD#113	11JY665	Site	Precontact	Not Eligible	N	No further study	TBD
FD#114	11JY696	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#220	11JY748	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#115	11JY695	Site	Precontact	Not Eligible	N	No further study	TBD
FD#116	11JY709	Site	Precontact	Not Eligible	N	No further study	TBD
FD#117	11JY710	Site	Precontact	Not Eligible	N	No further study	TBD
FD#118	11JY711	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#221	11JY743	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#222	11JY730	Site	Precontact	Not Eligible	N	No further study	TBD
FD#223	11JY747	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#121	11JY714	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#224	11JY746	Site	Precontact	Not Eligible	N	No further study	TBD
FD#225	11JY745	Site	Precontact	Not Eligible	N	No further study	TBD
FD#226	11JY744	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#227	11JY721	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#228	11JY722	Site	Precontact	Not Eligible	N	No further study	TBD
FD#229	11JY738	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#230	11JY740	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#231	11JY739	Site	Precontact	Not Eligible	N	No further study	TBD
FD#232	11JY736	Site	Precontact	Not Eligible	Y	No further study	TBD



**Table 4.3-3. Archaeological Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Site ID#	Resource Type	Temporal Affiliation	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline (continued)</b>							
<i>Jersey County, Illinois (continued)</i>							
FD#233	11JY734	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#130	11JY705	Site	Historic	Not Eligible	N	No further study	TBD
FD#131	11JY706	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#132	11JY707	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#133	11JY708	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#134	11JY663	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#135	11JY681	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#136	11JY679	Site	Precontact	Not Eligible	N	No further study	TBD
FD#137	11JY674	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#138	11JY675	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#139	11JY676	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#140	11JY677	Site	Precontact	Not Eligible	N	No further study	TBD
FD#141	11JY678	Site	Precontact	Not Eligible	N	No further study	TBD
FD#142	11JY702	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#143	11JY703	Site	Precontact	Not Eligible	N	No further study	TBD
FD#144	11JY701	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#145	11JY704	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#146	11JY683	Site	Precontact	Not Eligible	N	No further study	TBD
FD#148	11JY684	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#149	11JY688	Site	Precontact	Not Eligible	N	No further study	TBD
FD#150	11JY685	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#151	11JY693	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#152	11JY694	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#153	11JY686	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#154	11JY689	Site	Precontact	Not Eligible	N	No further study	TBD
FD#155	11JY690	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#156	11JY691	Site	Precontact	Not Eligible	N	No further study	TBD
FD#157	11JY692	Site	Precontact	Not Eligible	N	No further study	TBD
FD#158	11JY687	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#159	11JY669	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#160	11JY667	Site	Precontact	Not Eligible	N	No further study	TBD
FD#161	11JY668	Site	Precontact	Not Eligible	N	No further study	TBD
FD#162	11JY664	Site	Precontact	Not Eligible	N	No further study	TBD





**Table 4.3-3. Archaeological Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Site ID#	Resource Type	Temporal Affiliation	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline (continued)</b>							
<i>Jersey County, Illinois (continued)</i>							
FD#163	11JY718	Site	Precontact	Not Eligible	N	No further study	TBD
FD#164	11JY717	Site	Precontact	Not Eligible	N	No further study	TBD
FD#165	11JY670	Site	Precontact	Not Eligible	N	No further study	TBD
FD#166	11JY660	Site	Precontact	Not Eligible	N	No further study	TBD
FD#167	11JY671	Site	Precontact and Historic	Not Eligible	N	No further study	TBD
FD#168	11JY673	Site	Precontact	Not Eligible	N	No further study	TBD
FD#169	11JY672	Site	Precontact	Not Eligible	N	No further study	TBD
FD#170	11JY666	Site	Precontact and Historic	Not Eligible	N	No further study	TBD
<i>St. Charles County, Missouri</i>							
FD#171	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#234	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#172	23SC2219	Site	Precontact	Potentially Eligible; Portion with APE Not Eligible	N	No further testing Phase II tested portion of the site.	TBD
FD#235	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#173	23SC2218	Site	Precontact	Potentially Eligible	Y	No effect; avoided by construction right-of-way; No further study	TBD
FD#174	23SC2213	Site	Precontact	Not Eligible	N	No further study	TBD
FD#176	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#177	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#178	23SC2214	Site	Precontact	Not Eligible	N	No further study	TBD
FD#179	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#180	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#181	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#182	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#183	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#236	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#184	23SC2220	Site	Historic	Not Eligible	Y	No further study	TBD
FD#237	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#185	NA	Isolated Find	Historic	Not Eligible	N	No further study	TBD



**Table 4.3-3. Archaeological Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Site ID#	Resource Type	Temporal Affiliation	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline (continued)</b>							
<i>St. Charles County, Missouri (continued)</i>							
FD#186	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#187	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#188	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#189	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#190	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#191	23SC2217	Site	Precontact	Not Eligible	N	No further study	TBD
FD#192	23SC2216	Site	Historic	Potentially Eligible	Y	No effect; avoided by construction right-of-way; No further study	TBD
<b>North County Extension</b>							
<i>St. Louis County, Missouri</i>							
FD#238	23SL2403	Site	Historic	Not Eligible	N	No further study	TBD
FD#239	23SL524	Site	Precontact	Not Eligible	Y	No further study	TBD
FD#240	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#241	NA	Isolated Find	Precontact	Not Eligible	Y	No further study	TBD
FD#242	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#243	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#244	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#195	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#196	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD
FD#197	NA	Isolated Find	Precontact	Not Eligible	N	No further study	TBD

The Phase I cultural resources survey for the Project identified 135 archaeological sites (121 precontact, seven historic-period, and seven multi component) and 83 precontact isolated artifacts within the Project APE. One of these sites (23SL524) was previously recorded, while the remaining sites are newly identified.

All but one historic-period archaeological site (23SC2216) consist of low density artifact scatters and/or later period artifact assemblages. These historic-period archaeological sites have low research potential and are recommended not eligible for the NRHP. Site 23SC2216 may represent a short-term residential location that can be associated with the two structures mapped on the 1905 atlas.

Of the precontact sites, all but five consist of sparse lithic scatters with no evidence of features or diagnostic artifacts that do not warrant further study and are recommended not eligible for the NRHP. These five more extensive sites are: 11GE757, 11GE758, 11GE789, 23SC2219, and 23SC2218. One of these sites (23SC2219)



consists of higher density lithic scatters and contains tools and/or diagnostic artifacts. Four sites (11GE757, 11GE758, 11GE789, and 23SC2218) consist of moderate-density lithic scatters and contain precontact ceramics.

For the multi-component sites, all but one (11GE773) consist of low density artifact scatters and/or later period artifact assemblages that do not warrant further study and are recommended not eligible for the NRHP. Site 11GE773 consists of a higher density historic surface scatter containing residential and construction materials, and a low density lithic scatter with no evidence of precontact features, diagnostic precontact artifacts, or artifact concentrations.

In total, seven sites within the APE are recommended potentially eligible for the NRHP: 11GE757, 11GE758, 11GE773, 11GE789, 23SC2219, 23SC2218, and 23SC2216. Six of these sites, 11GE757, 11GE758, 11GE773, 11GE789, 23SC2218, and 23SC2216, will be avoided by the proposed alignment. The 24-inch pipeline does not avoid Site 23SC2219. As such, Spire conducted Phase II testing at this site in March 2017. Results of this survey is provided in a Phase II report provided in Volume IV-Privileged, Appendix 4-D. Due to pipeline reroutes, seven additional sites (11ST613, 11JY700, 11JY698, 11JY699, 11JY661, 11JY680, and 23SC2215) that were identified and previously recommended potential eligible for the NRHP are now located outside the project APE and will be avoided by the proposed alignment.

### 4.3.3 Historic Architectural Survey Results

Spire conducted an initial architectural survey in October 2016, and a survey for alternatives, reroutes, and the North County Extension in February 2017. Historic architectural resources identified within the APE are provided in Table 4.3-4. Phase I survey reports are provided in Volume IV – Privileged, Appendices 4-A and 4-B.

**Table 4.3-4. Historic Architectural Resources Identified within the APE**

Facility, County, and Resource ID	Resource Type	Date	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>24-Inch Pipeline</b>						
<i>Scott County, Illinois</i>						
GAI-01	Farmstead	C. 1890	Not Eligible	Y	No further study	TBD
GAI-02	Farmstead	C. 1890	Potentially Eligible	Y	No effect; No further study	TBD
GAI-03	Farmstead	C. 1890	Not Eligible	N	No further study	TBD
<i>Greene County, Illinois</i>						
GAI-04	Farmstead	C. 1900	Not Eligible	N	No further study	TBD
GAI-05	Farmstead	C. 1900	Not Eligible	N	No further study	TBD
GAI-06	Railroad	C. 1921	Potentially Eligible, Criterion A	Y	No effect; avoided by boring; No further study	TBD
GAI-07	Barn Structures	C. 1900, C. 1960	Not Eligible	Y	No further study	TBD



**Table 4.3-4. Historic Architectural Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Resource Type	Date	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
GAI-08	Farmstead	C. 1900	Not Eligible	N	No further study	TBD
GAI-09	Farmstead	C. 1950	Not Eligible	Y	No further study	TBD
GAI-10	Dwelling	C. 1940	Not Eligible	Y	No further study	TBD
GAI-11	Community Cemetery	C. 1840- present	Not Eligible	Y	No further study	TBD
GAI-12	Farmstead	C. 1930	Not Eligible	N	No further study	TBD
GAI-13	Farmstead	C. 1900	Not Eligible	N	No further study	TBD
GAI-14	Farmstead	C. 1870	Not Eligible	N	No further study	TBD
GAI-15	Farmstead	C. 1900	Not Eligible	N	No further study	TBD
GAI-16	Farmstead	C. 1920	Not Eligible	N	No further study	TBD
GAI-18	Farmstead	C. 1890	Not Eligible	Y	No further study	TBD
GAI-19	Farmstead	C. 1900	Not Eligible	Y	No further study	TBD
<i>Jersey County, Illinois</i>						
GAI-17	Farmstead	C. 1860	Not Eligible	Y	No further study	TBD
GAI-20	Farmstead	C. 1920	Not Eligible	Y	No further study	TBD
GAI-21	Farmstead	C. 1910	Not Eligible	Y	No further study	TBD
GAI-22	Farmstead	C. 1900	Not Eligible	Y	No further study	TBD
GAI-23	Farmstead	C. 1890	Not Eligible	N	No further study	TBD
GAI-24	Farmstead	C. 1910	Not Eligible	Y	No further study	TBD
GAI-25	Farmstead	C. 1890	Not Eligible	Y	No further study	TBD
GAI-26	Farmstead	C. 1890	Not Eligible	N	No further study	TBD
GAI-27	Farmstead	C. 1950	Not Eligible	N	No further study	TBD
GAI-28	Farmstead	C. 1910	Not Eligible	Y	No further study	TBD
GAI-29	Farmstead	C. 1850	Not Eligible	Y	No further study	TBD
GAI-30	Farmstead	C. 1930	Not Eligible	Y	No further study	TBD
GAI-31	Dwelling	C. 1900	Not Eligible	Y	No further study	TBD
<i>St. Charles County, Missouri</i>						
GAI-01m	Farmstead	C. 1910	Not Eligible	N	No further study	TBD
GAI-02m	Railroad	C. 1849	Potentially Eligible, Criterion A	Y	No effect; avoided by boring; No further study	TBD



**Table 4.3-4. Historic Architectural Resources Identified within the APE (Continued)**

Facility, County, and Resource ID	Resource Type	Date	Applicant NRHP Assessment	Avoided (Y or N)	Applicant Recommendations	SHPO Comments
<b>North County Extension</b>						
<i>St Louis County, Missouri</i>						
GAI-03m	Farmstead	C. 1900	Not Eligible	N	No further study	TBD
GAI-58m	Dwelling	C. 1960	Not Eligible	Y	No further study	TBD
GAI-57m	Dwelling	C. 1960	Not Eligible	Y	No further study	TBD
GAI-56m	Dwelling	C. 1940	Not Eligible	Y	No further study	TBD
GAI-55m	Dwelling	C. 1960	Not Eligible	Y	No further study	TBD
GAI-61m	Dwelling	C. 1940	Not Eligible	N	No further study	TBD
GAI-59m	Dwelling	C. 1960	Not Eligible	N	No further study	TBD
GAI-60m	Dwelling	C. 1960	Not Eligible	N	No further study	TBD
GAI-63m	Dwelling	C. 1925	Not Eligible	N	No further study	TBD
GAI-11m	Dwelling	C. 1940	Not Eligible	Y	No further study	TBD
GAI-65m	Dwelling	C. 1940	Not Eligible	N	No further study	TBD
GAI-54m	Dwelling	C. 1910	Not Eligible	N	No further study	TBD
GAI-66m	Dwelling	C. 1940	Recommended Eligible, Criteria C	N	No adverse effect; No further study	TBD

This architectural survey identified 46 architectural and historical resources (28 farmsteads, 14 dwellings, one complex of barn structures, two railroads, and one community cemetery) within the Project APE. None of these resources has been previously recorded. The 14 dwellings are typically located within residential areas and date to the early- to mid-twentieth century. In rural settings, 28 farmsteads and one complex of barn structures were identified, which typically date to the late-nineteenth century and early-twentieth century. GAI-02, a late-nineteenth century farmstead, is recommended potentially eligible for listing in the NRHP under Criterion C; however, this resource will not be physically or visually impacted. GAI-66m is a mid-twentieth century farmstead that is being recommended potentially eligible for listing in the NRHP under Criterion C; however, this resource will not be physically or visually impacted by the Project. Additionally, two railroads were identified during the survey along the 24-inch pipeline; GAI-06 in Greene County, Illinois, and GAI-02m in St. Charles County, Missouri. GAI-06 (Gulf, Mobile and Ohio Railroad; now known as the Kansas City Southern Railroad) was constructed circa 1921 and GAI-02m (Chicago, Burlington, and Quincy Railroad; now known as the Burlington Northern and Santa Fe Railroad) was constructed circa 1849. Both are recommended eligible for listing in the NRHP under Criterion A. Both of these railroads will be avoided via conventional bore. The remaining structures, farmsteads, and dwellings lack sufficient integrity and/or significance to be recommended eligible for NRHP listing. The Belltown Community Cemetery (ID #3918/GAI-11) is in Greene County Illinois and is situated east of the Project right-of-way and bordered by a fence. During Phase I survey, there was no evidence of non-native species or depressions that would



indicate the Belltown Community Cemetery extends beyond the existing fence line towards the Project right-of-way, which is also supported by a review of historical maps and aerial photographs.

## 4.4 Unanticipated Discoveries Plan for Cultural Resources

Spire proposes implementation of the procedures outlined in the Unanticipated Discoveries Plan for Cultural Resources for each state, and are provided as Appendix 4-C. These plans were updated per FERC and SHPO comments and were resubmitted to the agencies. To date, no further comments to these plans have been received. Copies of this plan will be kept on-site during construction, and environmental inspectors will be trained on the procedures.

## 4.5 References

- Algonkian Church History. 2009. *The Potawatomi Trail of Death*. Accessed March 2017 from <http://algonkianchurchhistory.blogspot.com/2009/03/potawotomi-trail-of-death.html>.
- Legends of America. 2011. *Native American Legends Potawatomy Trail of Death*. Accessed March 2017 from <http://www.legendsofamerica.com/na-potawatomitraildeath.html>.
- Miami County Historical Museum. 2017. *Miami County Kansas History, Miami County Historical Museum, Trail of Death*. Accessed March 2017 from <http://www.thinkmiamicountyhistory.com/trail-of-death.html>.
- Potawatomi Trail of Death. 2017. *Potawatomi Trail of Death Assn.* Accessed March 2017 from <http://www.potawatomi-tda.org/>.



**APPENDIX 4-A**

**Illinois Cultural Resources Report**

**CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE**



**APPENDIX 4-B**

**Missouri Cultural Resources Report**

**CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE**





## **APPENDIX 4-C**

### **Unanticipated Discoveries Plans for Illinois and Missouri**



**APPENDIX 4-D**

**Missouri Phase II Report: Site 23SC2219**

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