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Superfund Records Center
SITE: Elizabeth Mine
BREAK: 16.2
OTHER: 462867

MEMORANDUM OF AGREEMENT
AMONG THE US ENVIRONMENTAL PROTECTION AGENCY,
THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, and
THE VERMONT STATE HISTORIC PRESERVATION OFFICE
FOR CLEANUP OF THE ELIZABETH MINE,
IN STRAFFORD AND THETFORD, VERMONT
March 2010

WHEREAS, the United States Environmental Protection Agency (EPA) has listed the Elizabeth Mine in east central Vermont (the "Site") on the National Priorities List pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9601 et seq. (CERCLA); and

WHEREAS, EPA, pursuant to 36 CFR § 800.4 (c), has determined the Elizabeth Mine, its associated features and landscapes including, but not limited to, Sargent Brook Smelter, Tailing Piles 1 and 2 (TP-1, TP-2), waste rock piles (TP-3 and TP-4), the North Open Cut, the South Open Cut, the Old South Mine, Furnace Flat, the World War II (WWII) structures, the Copperas works, the Lower Copperas Factory, stone foundations, adits and air vents to be eligible for inclusion in the National Register of Historic Places (NR) under Criteria A, B, C, and D (see Figure 1); and

WHEREAS, the Elizabeth Mine is one component of the Orange County Mining District, encompassing also Ely Mine in Vershire, VT, and Pike Hill Mine in Corinth, VT, a district that has been determined to be eligible for the NR; and

WHEREAS, EPA completed a Time-Critical Removal Action (TCRA) to respond to an imminent and substantial endangerment to public health and the environment resulting from the instability of the tailing dam at Tailing Pile 1. Failure of the tailing dam would threaten the life of those residents downstream and potentially impact 20 miles of surface water; and

WHEREAS, EPA determined and the Vermont State Historic Preservation Officer (Vermont SHPO) agreed that additional mitigation was not required as a result of the TCRA since the actions within the TCRA were originally contemplated as part of the Non-Time Critical Removal Action (NTCRA); and

WHEREAS, EPA selected a NTCRA to clean up the source of acid mine drainage at Elizabeth Mine in an Action Memorandum on September 3, 2002. The proposed remediation was presented to the public in an Engineering Evaluation and Cost Analysis for the Elizabeth Mine and was subject to a 30-day public comment period; and

WHEREAS, EPA selected a Remedial Action (RA) to clean up those portions of the Site that were not included within the scope of the NTCRA selected in September 2002. The RA was documented in a Record of Decision (ROD) signed September 28, 2006. The RA was presented to the public in a Feasibility Study and Proposed Plan that was subject to a 30-day public comment period; and

WHEREAS, the NTCRA and TCRA will involve activities that will disturb the historic industrial landscape including, but not limited to: the diversion of surface water and shallow groundwater around TP-1 and TP-2; stabilization of the side slopes of TP-1 and TP-2 and placement of a soil buttress along the slopes; removal of the waste rock and heap leach piles of TP-3, including the material in the lower TP-3 area between the Copperas Factories and the waste material adjacent to Mine Road; installation of a cover system over all or portions of TP-1 and TP-2; installation of collection and treatment systems for storm water run-off during construction and the flow from the seeps from any remaining waste rock or tailing, particularly the seeps along the toe of TP-1; clearing and grubbing areas within and adjacent to tailing, waste rock and heap leach piles; hauling of source rock, soil, construction equipment, and fill, installation and maintenance of access roads, and off-site and on-site borrow areas; construction staging areas; and increased truck traffic; and

WHEREAS, the RA will involve activities that will disturb the historic industrial landscape including, but not limited to: removal of the waste rock area known as Tailing Pile 4 (TP-4); partial filling of the South Open Cut; collection and possible treatment of water discharging from the South Open Cut; grading, shaping, and relocation of a portion of the waste material at the Old South Mine; reduction and reshaping of the pit lake at the Old South Mine and South Open Cut; clearing, grading and covering of lead contaminated soil at the Copperas Factories; reshaping of a portion of the mine infrastructure area containing the WWII structures which includes removal of the former trestle to access exposed waste rock, removal of the chimney of one structure, and grading/covering of certain areas; hauling of source rock, soil, construction equipment, and fill, installation and maintenance of access roads, and off-site and on-site borrow areas; construction staging areas; and increased truck traffic; and

WHEREAS, contractors for EPA have performed large-scale trench excavations with heavy equipment to facilitate final design plans. Exploratory trenches were located within TP-3 and were subject to monitoring by a qualified professional to recover any data that may elicit additional information. A letter report describing the trenching operations and presence of historic industrial features was produced to document this activity; and

WHEREAS, a qualified professional is a person meeting the requirements identified in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 Federal Register 44716, 1983); and

WHEREAS, EPA established the area of potential effect (APE), as defined at 36 CFR § 800.16 (d), to include the Elizabeth Mine and its associated features, the towns of Strafford and Thetford, and any borrow areas and haul roads with the area of direct effects being approximately 300 acres of the total 800 acres mine site; and any areas of indirect effects yet to be determined; and

WHEREAS, EPA determined the Elizabeth Mine remediation will have adverse effects on historic properties pursuant to 36 CFR § 800.6; and

WHEREAS, EPA, the Vermont SHPO and Vermont Department of Environmental Conservation (VTDEC) have evaluated the required annual operation and maintenance requirements and associated costs of preserving in place the historic properties at Elizabeth Mine; and

WHEREAS, EPA, the Vermont SHPO and VTDEC after extensive deliberation and consultation with stakeholders have concluded that in-depth historic and archaeological documentation and interpretation must off-set preservation in place; and

WHEREAS, wherever possible the remedy will maximize in-place preservation of historic sites, historic features and historic landforms; and

WHEREAS, EPA produced three historic reports for identification and evaluation of historic properties: *Statement of Site Limits, National Register Eligibility and Potential Resources in the Proposed APE, Elizabeth Mine*; *Historical Context and Preliminary Resource Evaluation of the Elizabeth Mine and its Addendum*; and *Historic/Archaeological Mapping and Testing, Elizabeth Mine Site* (references provided in Appendix C); and

WHEREAS, EPA produced Historic American Engineering Record (HAER) and Historic Industrial Landscape documentation which included a historic narrative; 66 large format photographs of historic features; four standard HAER format drawings; 25 aerial photographs and 59 terrestrial photographs. These products have been distributed to the Vermont History Center Library, University of Vermont Bailey-Howe Library Special Collections, the Vermont SHPO, and the Strafford Historical Society; and

WHEREAS, EPA produced extensive geographic information system (GIS) based maps of the historical properties and the associated features; and

WHEREAS, EPA provided funding for an educational video relating to the Site and for development of a Site re-use plan, which included an evaluation of the interpretation of the historic landscape; and

WHEREAS, EPA consulted with the Vermont SHPO and has notified the Advisory Council on Historic Preservation (ACHP) in accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470f, and 36 CFR § 800.6(a)(1); and

WHEREAS, ACHP determined that Appendix A of 36 CFR Part 800 does not apply and their participation is not necessary; and

WHEREAS, the VTDEC will assume operation and maintenance of the cleanup at the Elizabeth Mine site once EPA has completed the installation of the response action; and

WHEREAS, EPA invited the VTDEC to participate in the consultation and sign this Memorandum of Agreement (MOA); and

WHEREAS, the Elizabeth Mine and its environs are on lands privately owned; and

WHEREAS, EPA consulted with the Towns of Strafford and Thetford and has invited them to concur in this MOA; and

WHEREAS, the Elizabeth Mine Community Advisory Group (EMCAG) represents ten organizations: Town of Strafford Selectboard; Town of Thetford Selectboard; Strafford Planning Commission; Thetford Conservation Commission; Elizabeth Mine Study Group; Citizens for a Sensible Solution; the Elizabeth Mine Survivors; Adjacent Landowners and Residents; Nonresidential Landowners and the Strafford Historical Society; and

WHEREAS, EPA invited the EMCAG to participate in the consultation and to concur in this MOA; and

WHEREAS, EPA consulted with representatives of non-federally recognized Native American communities; and

WHEREAS, EPA mailed several public information fact sheets summarizing the project and the historic properties to all residents of Strafford, Thetford, and numerous stakeholders, and held numerous public meetings to discuss the cleanup project and historic properties; and

NOW, THEREFORE, EPA, the VTDEC and Vermont SHPO agree that upon EPA's decision to proceed with the Elizabeth Mine Remediation Project, EPA shall ensure that the following stipulations are implemented in order to take into account the effects of the remediation on historic properties and that these stipulations shall govern the Project and all of its parts until this MOA expires or is terminated.

STIPULATIONS

EPA shall ensure that the following stipulations are implemented. A schedule for the MOA activities is included in Appendix A. The area of potential effects is depicted on Figure 1.

I. Avoidance

- A. The following historic properties will not be directly affected by construction activities associated with the remediation and will be avoided. These properties include, but are not limited to, the features found in the area known as Furnace Flat area and Sargent Brook Smelter area. Other historic properties and features that were identified as part of the site investigations or that may be identified during construction design will be avoided if possible. The final design plans for the NTCRA and RA will identify the areas to be avoided and areas where significant historic features may be encountered.
- B. If areas to be avoided are within a NTCRA or RA work area, EPA will clearly identify the areas to be avoided on the ground. The design for the NTCRA and RA will identify the procedures for the identification of the areas to be avoided, if applicable. At a minimum, the design will include visual measures or barriers (i.e., snow fencing) to alert on-site personnel of the presence of historic resources to be avoided. The on-site project

manager will review with construction personnel the procedures to avoid impacts to historic resources in the daily briefing whenever work will occur near such areas.

- C. At the beginning of the construction season and at other key points of the construction season, the EPA Remedial Project Manager will brief construction personnel on the historic areas to be avoided during construction activities.

II. Assessment of Effects

- A. EPA will have a qualified professional review the NTCRA and RA design, including any associated restoration plans prior to the Vermont SHPO's review. A copy of the reviewer's comments will be forwarded to the VTDEC and Vermont SHPO.
- B. NTCRA and RA design and implementation plans will be provided to the VTDEC and Vermont SHPO for consultation, review and comment. EPA shall identify any expected adverse effects from the activities to be implemented and the measures, if any, that will be taken to minimize the adverse effect. EPA will identify any design and implementation modifications that may affect historic resources and discuss them with the Vermont SHPO. The VTDEC and Vermont SHPO will have a 30-day time period for their review.
- C. Any unforeseen or emergency direct adverse effects to historic properties within the APE will be addressed prior to EPA's approval of the work to be performed that may cause any direct adverse effects. Particular attention will be paid to any historic features on TP-3 that may need additional documentation. The Vermont SHPO will be notified within seven days of EPA's knowledge of the unforeseen or emergency direct adverse effect.
- D. EPA will consult with the Vermont SHPO regarding any indirect adverse effects that may occur to historic properties as a result of the NTCRA and RA. The construction implementation plans will identify those measures that will be taken to minimize the indirect adverse effects on historic properties. If avoidance or minimization is not possible, or if an inadvertent adverse effect occurs, EPA will consult with the Vermont SHPO to resolve any adverse effects.

III. Copperas Factories and National Register Nomination

- A. A qualified professional has developed a data recovery plan for the former Copperas Factories. The data recovery plan meets the Secretary of the Interior's Standards and Guidelines for Identification and Archeological Documentation (48 Federal Register 44716, 1983) and the Vermont SHPO's Guidelines for Conducting Archeology in Vermont (July 2002). The data recovery plan has been provided to the Vermont SHPO for review and comment. The data recovery plan will be implemented as part of the Remedial Action.

- B. EPA will prepare a National Register Multiple Property Documentation Form (MPDF) for copperas and copper extractive industries in Orange County and prepare individual historic district nominations for each mining site in Orange County. The MPDF will be developed and completed concurrently with the technical reports specified in Stipulation VI.A. EPA will submit a draft of the MPDF to the Vermont SHPO for review. The final MPDF and individual nominations will be submitted to the Vermont SHPO both in paper and digital formats.
- C. The Vermont SHPO will consult with the Towns of Strafford and Thetford, the EMCAG, or its constituent representatives if the EMCAG no longer exists, and the Strafford and Thetford historic societies on the desirability and potential benefits of formally listing the historic districts to the National Register of Historic Places.

IV. Artifact Collection, Care, and Management

- A. All artifacts collected by qualified professionals during any investigations of any phase of the cleanup belong to the specific landowner of the property where the artifacts were located. Inventories, descriptions and significance statements, where appropriate, digital photographs and maps of collected artifacts (provided as a short, stand-alone report) will be developed and given to the respective landowners, to the Vermont SHPO, and to the Strafford Historical Society within one year of collection or one year of the effective date of this MOA, whichever is later.
- B. The artifacts will be returned to the landowner, unless the landowner agrees in writing to an alternative arrangement for disposition of the artifacts, following analysis by qualified professionals within one year of collection. If the landowner does not want the artifacts, the final disposition will be determined through consultation among the Signatories of this agreement.
- C. EPA and the Vermont SHPO will encourage landowners to donate historic mining equipment and any other artifacts that may be useful for interpretive exhibits. The Vermont SHPO will designate the acceptable curatorial facilities for all donations in consultation with the donating landowner.

V. NTCRA and other Cleanup Action Activities

A. Pre-Construction Landscape Assessment

1. Prior to initiation of the TP-3 component of the NTCRA and the RA construction activities, EPA will have a qualified professional perform a site reconnaissance to determine if any additional features have been exposed or identified since the original recording on the 2003 GIS maps and the completion of the HAER documentation. This assessment does not apply to the surface water and shallow groundwater diversion system, TP-1 and TP-2 final cover system, or borrow pits adjacent to TP-1 and TP-2.

2. EPA will have the GPS site map and GIS database updated, as necessary, to reflect any newly identified features.
3. EPA will take digital photos and provide an accompanying narrative description as necessary.
4. This pre-construction assessment applies only to features exposed since the documentation performed in the HAER documentation.
5. Any additional activities that may be required to document newly-exposed features that are deemed to have historical significance will be discussed with the Vermont SHPO prior to EPA undertaking construction.

B. Construction Monitoring

1. The test trench program at TP-3 acknowledges that significant data relating to the historic industrial mining process could be recovered as a result of direct observation of the construction activities. Therefore, EPA will develop a plan to have a qualified professional periodically monitor ground-disturbing construction within TP-3 and the Copperas Factories. The location and duration of the construction monitoring will be based on consultation with the Vermont SHPO.
2. A detailed plan for monitoring ground-disturbing construction within TP-3 and the Copperas Factories shall be submitted to the Vermont SHPO at least ten days prior to the initiation of the ground-disturbing activities.
3. Monitoring will not be conducted for any construction activities at any other area of the Site. Unanticipated discoveries will be handled in accordance with Stipulation VIII and Appendix B.

C. Borrow Material

1. Sole source borrow areas for the NTCRA (EPA or EPA contractor developed) will be assessed by qualified professionals to identify and evaluate any historic properties that may exist in the borrow area APE.
2. If historic properties are going to be adversely affected by borrow material removal as part of the NTCRA or RA, EPA will consult with the Vermont SHPO to determine how to address the effects prior to removing any borrow material.
3. EPA will consult with the Vermont SHPO and other appropriate parties to avoid obtaining material from a commercial borrow facility that may also contain historic properties, human remains or funerary objects.
4. EPA will continue to consult with the Vermont SHPO regarding the off-site haul routes by periodically updating the maps identifying the anticipated haul routes.

Based on feedback from the Vermont SHPO, EPA will make reasonable efforts to minimize the impact of material hauling on historic properties and will consult with the Vermont SHPO to resolve any adverse affects.

VI. Reports and Educational Products

A. Technical Reports

1. Three technical reports and detailed project maps with identified historic features and structures have been produced to date and are referenced by title in this document. The three technical reports are: *Statement of Site Limits, National Register Eligibility and Potential Resources in the Proposed APE, Elizabeth Mine; Historical Context and Preliminary Resource Evaluation of the Elizabeth Mine and its Addendum*; and *Historic/Archaeological Mapping and Testing, Elizabeth Mine Site* (references provided in Appendix C).
2. Copperas factories data recovery investigations will result in an appropriate technical report(s) and documentation.
3. EPA will have qualified professionals produce an addendum following the completion of the NTCRA, TCRA, and RA cleanup actions. The addendum will include a brief synopsis of all the work conducted by EPA to identify, record and interpret the history of the Elizabeth Mine. It will include a discussion of any additional data that may have been collected during the cleanup actions including the construction monitoring. The Vermont SHPO and VTDEC will be provided an opportunity to review and comment on the addendum.
4. EPA will submit any updated archeological spatial information to the Vermont SHPO as shape files as new site data becomes available subsequent to various cleanup actions.
5. Complete copies of the technical reports and addendum will be provided to the Vermont SHPO on DVD.

B. Popular Reports and Other Educational Products

1. EPA will develop an illustrated popular report that describes the historic developments and mining processes at the Elizabeth Mine for the general public. The report will also include a discussion of the environmental impacts associated with the Elizabeth Mine and cleanup activities, using as context the interconnections between national and state 19th century industrial history and changed 20th and 21st century environmental attitudes. Consultation will be conducted with the Vermont SHPO regarding the scope and length of the report prior to drafting it. A draft will be provided to the Vermont SHPO and VTDEC for review and comment. EPA will provide a draft of the popular report to the Strafford Historical Society for review

and comment. Upon request, the draft report will also be made available to other concurring parties for review and comment.

2. EPA will prepare content for one or more exhibits on the Internet-based Vermont Archaeology Museum that interprets historical properties associated with copperas and copper extractive industries in the Orange County Mining District with an emphasis on Elizabeth Mine. An interpretation plan, as described below in VI.B.4, will be prepared as a companion piece for the exhibit. Consultation will be conducted with the Vermont SHPO regarding the scope of the “virtual” exhibit(s) prior to development. A draft will be provided to the Vermont SHPO and VTDEC for review and comment.
3. Maintenance of the Internet-based exhibit(s) is the responsibility of the Vermont SHPO.
4. Upon completion of Stipulation VI.A.3, EPA will develop a plan and/or materials for interpreting the historical properties associated with copperas and copper extractive industries in the Orange County Mining District with an emphasis on Elizabeth Mine. The plan will provide detailed content for possible interpretive exhibits and informational material that could be used on or off the Elizabeth Mine Superfund Site such as example maps with optimal locations for site interpretation, example story boards, recommended viewing spots on site, recommended signage, etc. The interpretation plan will clearly identify that the Elizabeth Mine Superfund Site is private property and public access is not currently authorized. Interpretive materials may include a 3-D model of Elizabeth Mine showing the original site topography and key site features such as the North and South Open Cuts, and TP-3, and so forth using available contour information; historic activity areas based on the GIS maps produced for Stipulation VI.A; and distinguishing the different eras of site use. Fabrication of a 3-D model is contingent upon the Strafford Historical Society providing suitable space to house the model indefinitely. Drafts of all interpretive products will be provided to the Vermont SHPO and VTDEC for review and comment.
5. It is unlikely that EPA will be able to secure adequate funding for all of the activities specified in Stipulation VI.B.4. EPA, the Vermont SHPO, the Strafford Historical Society and other interested stakeholders, as appropriate, will engage in collaborative discussions to decide which of these products will be completed, based on the availability of funds.
6. EPA has provided funding for a Vermont Copper Mining Industry documentary video which is considered an education product under this MOA.

C. Distribution of the Popular Report and Other Educational Products

1. EPA will distribute copies of the popular report and documentary video to the Signatories and Concurring Parties of this agreement and to applicable landowners. All organizations in the EMCAG will receive their own individual copies.
2. EPA will distribute copies of the technical reports, the popular report, and documentary video to the designated public repository, the Harris Library Morrill Memorial in Strafford, the Norwich Public Library in Norwich, VT, Special Collections at the Bailey-Howe Library at the University of Vermont, the Dartmouth College Library, and the Vermont Historical Society, as well as other locations upon request.
3. EPA will provide copies of the popular report and other educational products specified in B, above, to the Vermont SHPO on a DVD(s) so it may disseminate this information to any additional parties as appropriate and post on the Internet as appropriate.

D. NTCRA and RA Design and Completion Reports

1. EPA will provide the Vermont SHPO with a copy of all reports and products identified in Section VI, including final NTCRA and RA Design and Construction Completion documents, and all documents required under this MOA or prepared to support the assessment and recordation of historic resources. The documents will be provided on a DVD and other formats as previously stated.

VII. Conservation Easements

- A. EPA, in consultation with the VTDEC and Vermont SHPO, will make reasonable efforts to develop conservation easements with private landowners in an effort to preserve intact specific portions of the historic properties.
- B. Failure to obtain any conservation easements will not affect any other sections of this agreement.

VIII. Unanticipated Discoveries

- A. EPA shall cease construction if human remains, associated funerary objects or graves are discovered.
- B. EPA will be responsible for instructing the on-site project manager in protocol for addressing unanticipated discoveries. The on-site project manager will be responsible for instructing the construction workers that need to know what the procedure will be in the event that any of the items in VIII.A are discovered.

- C. The on-site project manager will immediately notify the EPA Remedial Project Manager (RPM) if unanticipated discoveries are encountered and await further instructions. EPA will notify the appropriate authorities and the applicable landowners. The appropriate authorities are identified in the unanticipated discovery plan attached as Appendix B.
- D. Construction in the area may commence once EPA, in consultation with the appropriate authorities, has determined the unanticipated discoveries have been addressed in the appropriate manner.
- E. Any 19th or 20th century mining artifacts and features will be excluded from being considered unanticipated discoveries.

IX. Dispute Resolution

- A. EPA shall consult with any Signatory to this agreement, in accord with 36 CFR § 800.6 (c)(1), if there is an objection by a Signatory to the manner in which the terms of the agreement are implemented.
- B. If EPA determines that the objection cannot be resolved among the involved parties, the EPA shall forward all documentation relevant to the dispute to the ACHP in accordance with 36 CFR § 800.2(b)(2). After reviewing the documentation, the ACHP will either:
 - 1. Provide EPA with recommendations, which EPA can take into account in reaching a final decision regarding the dispute; or
 - 2. Notify EPA that it will comment pursuant to 36 CFR § 800.7(c), and proceed to comment. EPA will take into account any ACHP comment provided in response to such a request in accordance with 36 CFR § 800.7(c)(4) with reference to the subject of the dispute.
- C. Any recommendation or comment provided by the ACHP will pertain only to the subject of the dispute. EPA's responsibility to carry out all actions under this agreement that are not subjects of the dispute will remain unchanged.

X. Amendment

Any Signatory to this agreement, in accord with 36 CFR § 800.6 (c)(1), may request that the other Signatories consider amending it if circumstances change over time and warrant revision of the stipulations. Amendments will be executed in the same manner as the original MOA.

XI. Termination

- A. Any Signatory to this agreement, in accord with 36 CFR § 800.6 (c)(1), may initiate consultation for termination by providing 30 business days notice to the other parties of

their intent. After notification by the initiating Signatory, the remaining Signatories will have 60 business days to consult to seek agreement on amendments or any other actions that would address the issues and avoid termination.

- B. In the event of termination, EPA will seek the ACHP's comment on any remaining adverse effects to historic properties only for the project and terms of this agreement.

XII. Sunset Terms

- A. This agreement shall be null and void if its terms are not carried out within twenty years from the date of its execution, unless the Signatories agree in writing to an extension for carrying out its terms.
- B. In the event the cleanup is not funded and will not occur, EPA is not obligated to perform the mitigation tasks as identified in this agreement.

Execution of this Memorandum of Agreement and implementation of its terms is evidence that EPA has afforded the ACHP an opportunity to comment on the NTCRA and all remediation activities at the Elizabeth Mine Site.

Appendix A: Schedule of Activities
 Memorandum of Agreement - Elizabeth Mine
 January 2010

Activity	Planned Completion Date	Comments
Stipulations I and II	Will be included in design plans developed by EPA for the NTCRA	EPA will not approve NTCRA or RA work for the areas subject to Stipulations I and II prior to review of the NTCRA or RA design plans by a qualified professional and opportunity for review and comment has been provided to the VTDEC and Vermont SHPO.
Stipulation III.A	Prior to the implementation of any NTCRA intrusive field work at the Copperas Factories	
Stipulation III.B	National Register Nomination	If EPA is unable to secure adequate funding for this activity, re-negotiations with the Vermont SHPO will be necessary.
Stipulation V.A	Pre-Construction Landscape Assessment	Prior to any work at TP-3 or for the RA.
Stipulations V.B and V.C	Construction monitoring and borrow pit evaluations will be performed as required by the MOA	
Stipulations VI.A	Final Technical Addendum Report will be completed within 18 months of the NTCRA or RA substantial completion inspection, whichever is later.	Substantial completion inspection is the joint inspection of the NTCRA or RA that identifies the list of activities that EPA must perform to accomplish the transfer of the NTCRA or RA from the construction implementation phase (performed and funded by EPA) to the maintenance phase (performed and funded by VTDEC).
Stipulations VI.B.1 and VI.C	EPA will make best efforts to complete these activities within 18 months of the NTCRA or RA substantial completion inspection, whichever is later.	Delays in receiving feedback from expected reviewers may impact completion of these deliverables.
Stipulations VI.B.4 and VI.B.5	EPA will make best efforts to conclude, within 18 months of the NTCRA or RA substantial completion inspection, whichever is later, discussions with Vermont SHPO, Strafford Historical Society, etc, to determine which of the activities under consideration will be completed.	If EPA is unable to secure adequate funding, stakeholder input will be needed to set priorities. Delays in receiving necessary feedback from interested parties may impact completion of these activities.
Stipulation VII	EPA will make reasonable efforts to secure conservation/preservation easements for the historic resources prior to the NTCRA or RA substantial completion inspection.	

Appendix B: Unanticipated Discoveries
Memorandum of Agreement – Elizabeth Mine
January 2010

Procedures for Unanticipated Discoveries

I. Definitions

- A. Unanticipated discoveries will include only the human remains and associated funerary objects for the EPA Elizabeth Mine NTCRA project.
- B. Associated funerary objects include those objects placed intentionally with human remains and are physically associated in space with such remains. The location of objects within the grave fill or in immediate proximity to human remains shall be understood to evidence intentional placement with human remains.
- C. Native American means of, or relating to, a tribe, people or culture that is indigenous to the United States.
- D. Cultural affiliation means that there is a relationship of shared group identity which can be reasonably traced historically or prehistorically between a present day Native American group and an identifiable earlier group.

II. Plan of Action

- A. If an unanticipated discovery occurs, the on-site project manager will contact immediately the EPA Remedial Project Manager (RPM). The on-site project manager will ensure that all activity is stopped in the immediate area of the discovery. Protective measures such as barriers or fencing will be erected until the plan for treatment is completed.
- B. The EPA RPM will notify the medical examiner or appropriate law enforcement official of Orange County, VT and the VT State Archaeologist. Pending determination of jurisdiction by the medical examiner or law enforcement official, EPA will have a qualified professional determine the cultural affiliation and approximate age of the remains, if appropriate.
- C. If the human remains are determined to be of Native American cultural affiliation, EPA shall immediately notify the Native American representatives of those Native American groups with an expressed interest in this geographical region.

- D. EPA will consult with Native Americans to develop a specific plan for treatment of the human remains and any associated funerary objects. The treatment plan may include any analysis that may be necessary for identification, method of transporting the remains and objects, temporary storage if necessary, curation if appropriate and repatriation.
- E. Construction and other activities may resume when the treatment plan has been implemented.

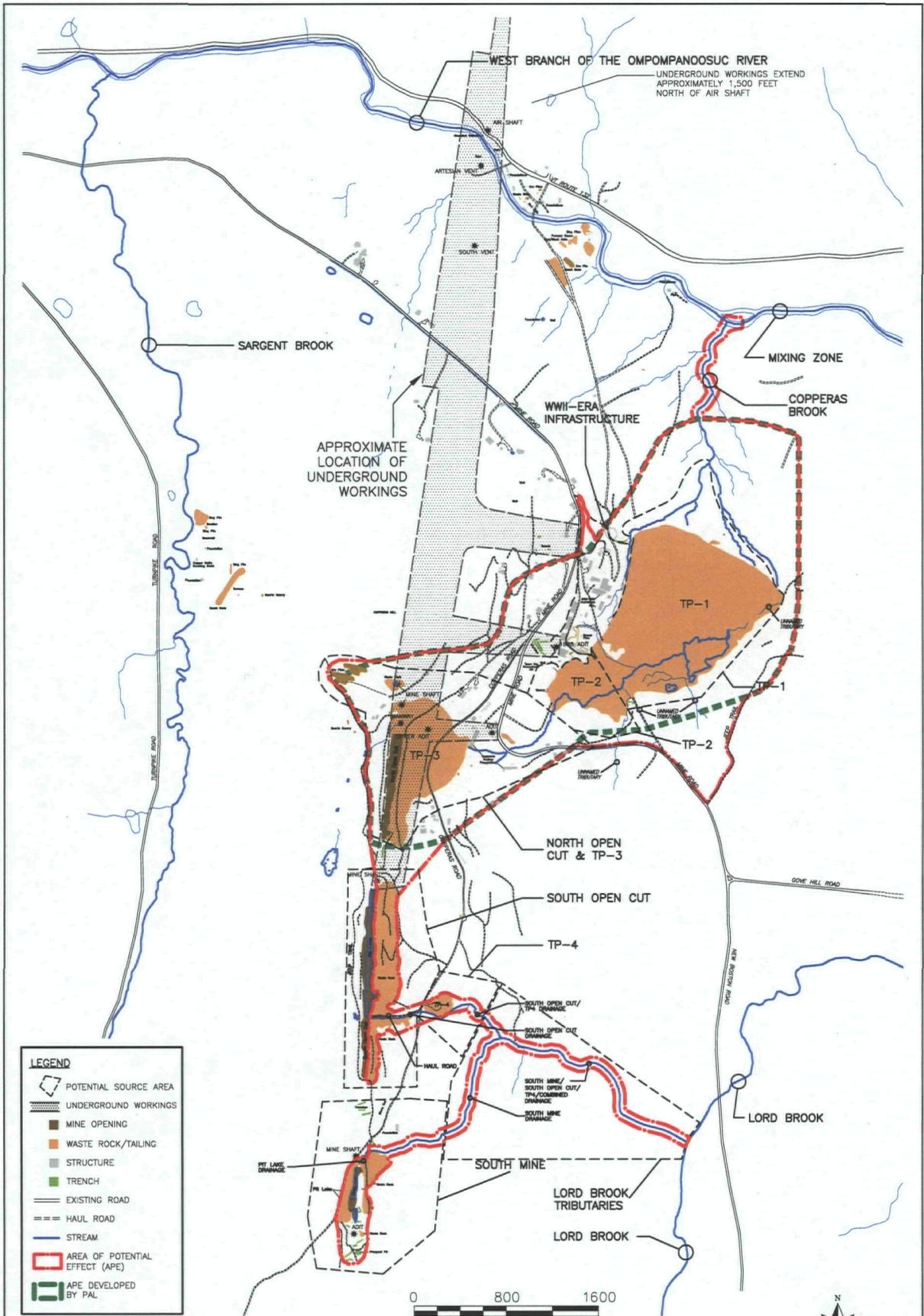
Appendix C: References

Memorandum of Agreement – Elizabeth Mine
January 2010

Hartgen Archaeological Associates, 2000. *Statement of Site Limits, National Register Eligibility and Potential Resources in the Proposed APE: Elizabeth Mine, South Strafford, Orange County, VT*. Submitted to Arthur D. Little, Inc, Cambridge, MA. October.

Public Archaeology Laboratory, 2001. *Historical Context and Preliminary Resource Evaluation of the Elizabeth Mine, South Strafford, Orange County, VT*. Prepared for Arthur D. Little, Inc, Cambridge, MA and U.S. Army Corps of Engineers, New England District, Concord, MA. May.

Public Archaeology Laboratory, 2003. *Historic/Archaeological Mapping and Testing, Elizabeth Mine Site, Strafford and Thetford, VT*. Prepared for U.S. Army Corps of Engineers, New England District, Concord, MA. January.



Source:
 USGS 7.5-minute topographic quadrangles of South Strafford, VT (1981); Sharon, VT (1981); Chelsea, VT (1981); Hanover, NH (1988); and Lyme, NH (1983) obtained from Vermont Center for Geographic Information, Inc. Waterbury, VT in digital format (Liff files) projected in the Vermont State Plane coordinate system (NAD83) from Digital Raster Graphic Image files.
 Historic site features and 1-meter interval contour base map obtained from Public Archaeology Lab (PAL), Pawtucket, Rhode Island, Report No. 1237.03, September 2002.
 Water course data obtained from the Vermont Center for Geographic Information, Inc. Waterbury, VT and PAL, Report No. 1237.03, September 2002, modified based on site reconnaissance.

Please project/USE ELIZABETH MINE STRAFFORD, VT map/APE.dwg, APE, 1/16/2010 12:11:08 PM

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PROJECT NO:	39459945
DESIGN:	FS AS SHOWN
APPROVED:	JCC DATE JAN 2010
DRAWN:	FS FILE NO. APE.DWG

U.S. ARMY CORPS OF ENGINEERS
 PROJECT: ELIZABETH MINE FEASIBILITY STUDY STRAFFORD, VERMONT

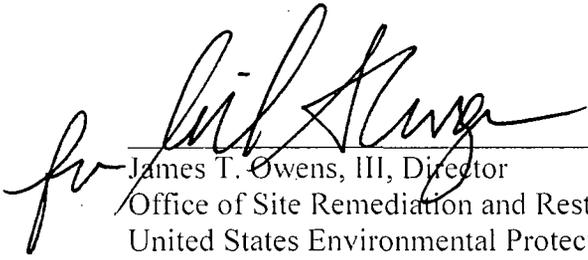
U.S. Army Corps of Engineers
 New England District

FILE: AREA OF POTENTIAL EFFECTS TO HISTORIC RESOURCES

FIGURE NO: 1

MEMORANDUM OF AGREEMENT
AMONG THE US ENVIRONMENTAL PROTECTION AGENCY,
THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, and
THE VERMONT STATE HISTORIC PRESERVATION OFFICE
FOR CLEANUP OF THE ELIZABETH MINE,
IN STRAFFORD AND THETFORD, VERMONT

Signatory

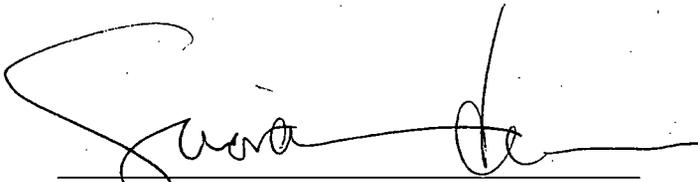


James T. Owens, III, Director
Office of Site Remediation and Restoration
United States Environmental Protection Agency

Mar 12, 2010
Date

MEMORANDUM OF AGREEMENT
AMONG THE US ENVIRONMENTAL PROTECTION AGENCY,
THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, and
THE VERMONT STATE HISTORIC PRESERVATION OFFICE
FOR CLEANUP OF THE ELIZABETH MINE,
IN STRAFFORD AND THETFORD, VERMONT

Signatory

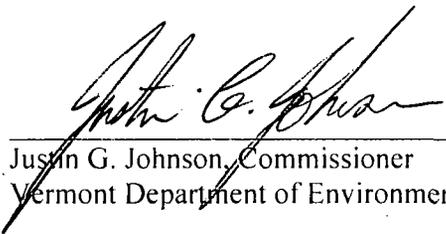


Giovanna Peebles
Vermont State Historic Preservation Officer

2/5/2010
Date

MEMORANDUM OF AGREEMENT
AMONG THE US ENVIRONMENTAL PROTECTION AGENCY,
THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, and
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FOR CLEANUP OF THE ELIZABETH MINE,
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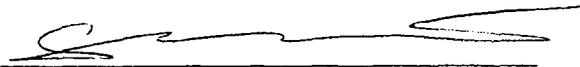
Signatory


Justin G. Johnson, Commissioner
Vermont Department of Environmental Conservation

2/11/2010
Date

MEMORANDUM OF AGREEMENT
AMONG THE US ENVIRONMENTAL PROTECTION AGENCY,
THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, and
THE VERMONT STATE HISTORIC PRESERVATION OFFICE
FOR CLEANUP OF THE ELIZABETH MINE,
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Concurring Party

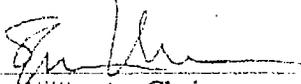


Tig Tillinghast, Chair
Town of Thetford Selectboard

1/26/10
Date

MEMORANDUM OF AGREEMENT
AMONG THE US ENVIRONMENTAL PROTECTION AGENCY,
THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, and
THE VERMONT STATE HISTORIC PRESERVATION OFFICE
FOR CLEANUP OF THE ELIZABETH MINE,
IN STRAFFORD AND THETFORD, VERMONT

Concurring Party



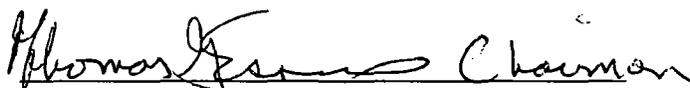
Steve Willbanks, Chair
Town of Strafford Selectboard

1/27/10

Date

MEMORANDUM OF AGREEMENT
AMONG THE US ENVIRONMENTAL PROTECTION AGENCY,
THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, and
THE VERMONT STATE HISTORIC PRESERVATION OFFICE
FOR CLEANUP OF THE ELIZABETH MINE,
IN STRAFFORD AND THETFORD, VERMONT

Concurring Party

 Thomas Essex, Chairman

Thomas Essex, Chair
Elizabeth Mine Community Advisory Group

3/15/2010
Date