UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

IN THE MATTER OF:

St. Joe Minerals Corp. - Viburnum Site
Iron County, Missouri

Docket No. CERCLA-07-2007-0013

THE DOE RUN RESOURCES CORPORATION,

Respondent,

ADMINISTRATIVE ORDER ON CONSENT
FOR TIME-CRITICAL REMOVAL ACTION

Proceeding under Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622.

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order on Consent (Order) is entered into voluntarily by the United States Environmental Protection Agency (EPA) and The Doe Run Resources Corporation (Respondent). This Order provides for the performance of a time-critical removal action and the reimbursement of certain response costs incurred by the United States at or in connection with the St. Joe Minerals Corp. - Viburnum Site (the Site) located in Iron County, Missouri.

2. This Order is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended (CERCLA).

3. The EPA has notified the state of Missouri (the State) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

4. The EPA and Respondent recognize that this Order has been negotiated in good faith and that the actions undertaken by Respondent in accordance with this Order do not constitute an admission of any liability. Respondent does not admit, and retains the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Order, the validity of the findings of facts, conclusions of law, and determinations in Sections IV and V of this Order. Respondent agrees to comply with and be bound by the terms of this Order and further agrees that it will not contest the basis or validity of this Order or its terms.

II. PARTIES BOUND

5. This Order applies to and is binding upon EPA and upon Respondent and its successors and assigns. Any change in ownership or corporate status of Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter Respondent's responsibilities under this Order.

6. Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Order and comply with this Order. Respondent shall be responsible for any noncompliance with this Order.

III. DEFINITIONS

7. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "Action Memorandum" or "Action Memo" shall mean the EPA Action Memorandum for the St. Joe Minerals Corp. – Viburnum Site, Iron County, Missouri, signed by the Superfund Division Director, EPA, Region VII, and all appendices thereto. The "Action Memorandum" is set forth in Appendix C.

b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

c. "Day" shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.

d. "Effective Date" shall be the effective date of this Order as provided in Section XXX. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

e. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

f. "MDNR" shall mean the Missouri Department of Natural Resources and any successor departments or agencies of the state.

g. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

h. "Order" shall mean this Administrative Order on Consent and all appendices hereto. In the event of conflict between this Order and any attachment, this Order shall control.

i. "Oversight Costs" shall mean all direct and indirect costs incurred by EPA in connection with this Order, including, but not limited to, time and travel costs of EPA personnel and associated indirect costs; contractor costs; interagency agreement costs; compliance monitoring, including the collection and analysis of split samples, Site visits, discussions regarding disputes that may arise as a result of this Order, review and approval or disapproval of reports, and costs of performing any of Respondent's tasks; costs incurred by EPA in the process of assisting Respondent to gain access as described in Section IX (Site Access); other costs incurred in implementing, overseeing, or enforcing this Order; and enforcement costs.

j. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

k. "Parties" shall mean EPA and Respondent.

l. "Removal Action" shall mean those activities to be undertaken by the Respondent to implement this Order and other plans approved by EPA.

m. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, *et seq.* (also known as the Resource Conservation and Recovery Act).

n. "Respondent" shall mean The Doe Run Resources Corporation.

o. "Section" shall mean a portion of this Order identified by a Roman numeral.

p. "Site" means any residence or child high-use area (1) within the City of Viburnum, adjacent to the City of Viburnum or within the cross-hatched area on the map attached as Appendix A to this Order; (2) adjacent to and within 200 feet of either edge of the haul roads from the City of Viburnum to the Viburnum No. 27, No. 29, and Casteel mines; (3) within 1,000 feet of the head frames of Viburnum No. 27, No. 29 and Casteel mines; and (4) within the area within 1,000 feet from the edge of all Doe Run and St. Joe Minerals-Viburnum mine waste disposal areas (e.g. tailings piles). The areas are denoted by the shaded areas or cross-hatched area on the map attached as Appendix A. Should this written definition conflict with the Appendix A then Appendix A shall prevail.

q. "State" shall mean the state of Missouri.

r. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the time-critical removal action, as set forth in Appendix B to this Order, and any modifications made thereto in accordance with this Order.

s. "Waste Material" shall mean 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and 4) any "hazardous waste" under Section 1004(5) of RCRA, 42 U.S.C. § 6903(5).

t. "Work" shall mean all activities Respondent is required to perform under this Order.

IV. FINDINGS OF FACT

8. The Site is located in Iron County, in the southeastern region of Missouri. It is part of what is commonly known as the New Lead Belt, which began producing lead around 1960 and continues production to this day.

9. The Doe Run Company - Viburnum Division (formerly St. Joe Minerals Corp - Viburnum) is located in and near the city of Viburnum, Missouri, at the northern end of the Viburnum Trend Lead Mining District. The Viburnum Division includes four mines where ore was brought to the surface: Viburnum Mine 27 in Crawford County; Viburnum Mine 29 in Washington County; Viburnum Mine 28 in Iron County; and Casteel Mine in Iron County. The mined ore was previously transported over privately owned haul roads to the Viburnum Central Mill which was located at Viburnum Mine 28 in Iron County and is currently inactive. From the Viburnum Central Mill, the processed lead, called lead concentrate, was hauled to various smelters or shipped overseas. Currently, only Viburnum Mine 29 and the Casteel Mine are operating. Viburnum Mine 27 was closed in 1983 and Viburnum Mine 28 was closed in 2004. Ore from the Viburnum Mine 29 is currently brought to the Viburnum Central mill complex where it is crushed and then hauled over public roads to the Buick mill for concentrating. The lead ore from the Casteel mine is also hauled over public roadways to other mine ore concentrators within the Viburnum Trend Mining District for further processing.

10. From October 2002 to October 2003, the Missouri Department of Natural Resources (MDNR) conducted a large-scale removal site evaluation along 12 previously identified haul route segments in Iron, Reynolds, and Dent Counties, Missouri. During this evaluation homes were identified where lead concentrations in the yards were as high as 6,534 ppm with cadmium levels as high as 8.19 ppm and zinc as high as 3,570 ppm.

11. On September 30, 2005, EPA and Respondent entered into an Administrative Order on Consent wherein Respondent agreed to perform a removal Preliminary Assessment/Site Inspection at the Site. Pursuant to the Order, Respondent sampled approximately 300 residences. The sampling efforts identified approximately 60 residences or child high-use areas that exceeded health-based time-critical lead contamination action levels. Based on these samples, EPA issued an Action Memorandum that made the determination that there has been a release of hazardous substances, pollutants and/or contaminants into the environment in quantities that present an imminent and substantial danger to human health or the environment as a result of hauling and other mining related activities that occurred in and around the city of Viburnum, Missouri.

12. Respondent is a corporate successor of St. Joe Minerals Corporation, who conducted mining operations in the vicinity of the Site.

13. Respondent is a New York Corporation registered to do business in the state of Missouri.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

14. Based on the Findings of Fact set forth above, and the Administrative Record supporting this removal action, EPA has determined that:

a. The Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. Lead has been found at the Site and is a "hazardous substance" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), because:

   i. Respondent is the "owner" and/or "operator" of the Site, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1);

   ii. Respondent was the "owner" and/or "operator" of the Site at the time of disposal of hazardous substances, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2); and/or

   iii. Respondents arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the facility, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

e. The presence of hazardous substances at the Site or the past, present, or potential migration of hazardous substances currently located at, or emanating from, the Site constitutes an actual or threatened "release" of hazardous substances from a facility as defined by Section 101(22) of CERCLA, 42 U.S.C.§ 9601(22).

f. The response activities required by this Order are necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Order, will be considered consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), as provided in Section 300.700(c)(3)(ii) of the NCP.

VI. ORDER

15. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for the St. Joe Minerals Corp. - Viburnum Site, it is hereby Ordered and Agreed that Respondent shall comply with all provisions of this Order, including, but not limited to, all appendices to this Order and all documents incorporated by reference into this Order.

VII. DESIGNATION OF CONTRACTOR AND PROJECT COORDINATORS

16. Respondent shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) within ten (10) days of the Effective Date. Respondent shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least ten (10) days prior to commencement of such Work. The EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor, Respondent shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within fifteen (15) days of EPA's disapproval. The proposed contractor must demonstrate compliance with ANSI/ASQC E-4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP"). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B0-1/002), or equivalent documentation as required by EPA.

17. Within ten (10) days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondent required by this Order and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present at, or readily available by telephone during, on-site work. The EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within fifteen (15) days following EPA's disapproval. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by Respondent.

18. The EPA has designated Jeffrey Weatherford, P.E., as its Project Coordinator. Except as otherwise provided in this Order, Respondent shall direct all submissions required by this Order by certified or registered mail to Mr. Weatherford at the United States Environmental Protection Agency, Region VII, 212 Little Busen Drive, Fenton, Missouri, 63026, telephone (636) 326-4720.

19. The EPA and Respondent shall have the right, subject to paragraphs 16 and 17, to change their respective designated Project Coordinators and contractors. Verbal notice of such change shall be provided to the other party within twenty-four (24) hours of such change and written notice shall follow within five (5) days of such change. Such change by Respondent is subject to EPA approval as set forth in Paragraphs 16 and 17 above.

VIII. WORK TO BE PERFORMED

20. Respondent shall perform, at a minimum, all actions necessary to implement the time-critical removal action at the Site in accordance with this Order and the attached Statement of Work (SOW), Appendix B. The actions to be implemented generally include, but are not limited to, the following:

21. Work Plan and Implementation.

a. Within thirty (30) days after the Effective Date, Respondent shall submit to EPA for approval, a draft Work Plan for performing the removal action generally described in this Order and the attached SOW. The draft Work Plan shall provide a description of, and an expeditious schedule for, the actions required by this Order. The draft Work Plan shall include a Sampling and Analysis Plan that shall consist of a Field Sampling Plan ("FSP") and a Quality Assurance Project Plan ("QAPP"), as described in the Statement of Work and guidances, including, without limitation, "EPA Guidance for Quality Assurance Project Plans (QA/G-5)"(EPA/600/R-02/009, December 2002 or subsequently issued guidance), and "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA 240/B-01/003, March 2001 or subsequently issued guidance).

b. The EPA may approve, disapprove, require revisions to, or modify the draft Work Plan pursuant to the review and approval procedures established by this Order.

c. Respondent shall not commence any Work except in conformance with the terms of this Order. Respondent shall not commence implementation of the Work Plan developed hereunder until receiving written approval from EPA. Upon receipt of EPA approval the Respondent shall implement the approved Work Plan.

d. Respondent shall notify EPA at least seven (7) days prior to performing any on-site Work pursuant to the Work Plan approved by EPA.

22. Health and Safety Plan. Within thirty (30) days after the Effective Date, Respondent shall submit for EPA to review and comment, a plan that ensures the protection of the public health and safety during performance of on-site work under this Order. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and

Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Respondent shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action.

23. Quality Assurance and Sampling.

a. All sampling and analyses performed pursuant to this Order shall conform to EPA's direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures. Respondent shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondent shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990), as guidance for QA/QC and sampling. Respondent shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2) (EPA/240/B-01/002, March 2001)," or equivalent documentation as determined by EPA. The EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the Quality System requirements.

b. Upon request by EPA, Respondent shall have the laboratory that it selects analyze samples submitted by EPA for QA monitoring. Respondent shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

c. Upon request by EPA, Respondent shall allow EPA or its authorized representatives to take split and/or duplicate samples. Respondent shall notify EPA not less than ten (10) days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. The EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondent to take split or duplicate samples of any samples it takes as part of its oversight of Respondent's implementation of the Work.

d. Respondent shall submit to EPA, within twenty (20) days of receipt by Respondent of final validated sampling results from the laboratory, all analytical data collected in connection with this Order.

24. Final Report. Within ninety (90) days after completion of all Work required by this Order, Respondent shall submit for EPA to review and approve a final report summarizing the actions taken to comply with this Order. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports." The final report

shall include a good-faith estimate of total costs or a statement of actual costs incurred in complying with the Order, a listing of quantities and types of materials removed off-site or handled on site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

> Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

25. Review and Approval.

a. The following procedure will apply to all documents submitted to EPA for review and approval pursuant to the requirements of this Order. The EPA will notify Respondent in writing whether it approves or disapproves of the document that is subject to review and approval and provide comments regarding the basis for any disapproval. Within twenty (20) days of receipt of written notice of disapproval from the EPA, or such other time period as agreed to by Respondent and EPA, Respondent shall make the necessary revisions and resubmit the document to EPA. Subject to dispute resolution, EPA will make the final determination as to whether the document submitted by Respondent is in compliance with the requirements of this Order.

b. Failure of EPA to expressly approve or disapprove of Respondent's submissions within a specified time period(s) or the absence of comments shall not constitute approval by EPA. Whether or not EPA gives express approval for Respondent's deliverables, Respondent is responsible for preparing deliverables acceptable to EPA.

c. If a document that is resubmitted after EPA's disapproval continues to have a material defect, it shall be considered a violation of the Order and EPA retains the right to seek stipulated or statutory penalties, perform its own studies, complete the Work (or any portion of the Work) under CERCLA and the NCP, and to seek reimbursement from the Respondent for its costs and/or seek any other appropriate relief.

d. Approved documents shall be deemed incorporated into and made part of this Order. Prior to written approval, no work plan, report, specification, or schedule shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA representatives will not constitute an official approval, nor shall any oral approval or oral assurance of approval be considered binding.

26. Reporting.

a. Respondent shall submit a monthly written progress report to EPA concerning actions undertaken pursuant to this Order. The first report shall be due thirty (30) days after the Effective Date and subsequent reports shall be due monthly until termination of this Order, unless otherwise directed in writing by the EPA Project Coordinator. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered; analytical data received during the reporting period; and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. Respondent shall submit two (2) copies of all plans, reports, or other submissions required by this Order, the attached SOW, or any approved Work Plan. Upon request by EPA, Respondent shall submit such documents in electronic form.

c. Respondent shall, at least thirty (30) days prior to the conveyance of any interest in real property at the Site, give written notice to the transferee that the property is subject to this Order and written notice to EPA and the State of the proposed conveyance, including the name and address of the transferee.

27. Meetings. Respondent shall make presentations at, and participate in, meetings at the request of EPA during the planning for, and conduct of, the removal action, as is necessary in order to provide the community with information and opportunity for input.

IX. SITE ACCESS

28. If any property within the Viburnum Site where access is needed to implement this Order is owned or controlled by the Respondent, Respondent shall, commencing on the Effective Date, provide EPA and its representatives, including contractors, with access at all reasonable times to the property for the purpose of conducting any activity related to this Order.

29. Where any action under this Order is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements. "Best efforts" means Respondent shall send a letter, which has been reviewed and approved by EPA, to the owner of the property to which access is sought that describes the process and purpose of the removal action, the reasons access is needed, and includes a telephone contact number; and it means Respondent shall make an initial visit to each property to which access is sought and conduct at least two (2) follow-up visits if necessary in order to secure access. The follow-up visits shall be conducted during weekday evening hours between 6:00 p.m. and 8:00 p.m. Respondent shall maintain a log in which it records its efforts to obtain access, including the date the letter was mailed, the time and dates of the initial and follow-up visits, and either the date of the response by the landowner or the date EPA was notified of the

failure of Respondent to obtain a response from the property owner. Respondent shall immediately notify EPA if, after using its best efforts, it is unable to obtain an access agreement. If Respondent fails to secure necessary access agreements, EPA may assist Respondent in gaining access, to the extent necessary to effectuate the response activities described herein, using such means as EPA deems appropriate, including exercising its authority pursuant to Section 104(e) of CERCLA, 42 U.S.C. § 9604(e). Each access agreement shall permit Respondent and EPA, including its authorized representatives and representatives of the State and Iron County, access to the property to conduct the activities required under this Order. These individuals shall be permitted to enter and move freely at the property in order to conduct actions that EPA determines to be necessary. Such unrestricted access shall continue until such time as EPA has granted notice of completion as set forth in Section XXVIII (Notice of Completion) of this Order. Nothing herein shall be interpreted as limiting or affecting EPA's statutory right of entry or inspection authority under federal or state law. All costs and attorney's fees incurred by the United States in obtaining access shall be considered Oversight Costs.

30. Notwithstanding any provision of this Order, EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

X. ACCESS TO INFORMATION

31. Respondent shall provide to EPA, upon request, copies of all documents and information within its possession or control or in the possession or control of its contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondent shall also make its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work available to EPA for purposes of investigation, information gathering, or testimony.

32. Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Order to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA, or if EPA has notified Respondent that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondent.

33. Respondent may assert that certain documents, records and other information provided under this Section are privileged under the attorney-client privilege or any other

privilege recognized by federal law. If Respondent asserts such a privilege in lieu of providing documents, it shall provide EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

34. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

XI. RECORD RETENTION

35. Until ten (10) years after Respondent's receipt of EPA's notification pursuant to Section XXVIII (Notice of Completion of Work), Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until ten (10) years after Respondent's receipt of EPA's notification pursuant to Section XXVIII (Notice of Completion of Work), Respondent shall also instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature, or description relating to performance of the Work.

36. At the conclusion of this document retention period, Respondent shall notify EPA at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by EPA, Respondent shall deliver any such records or documents to EPA. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, it shall provide EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

37. Respondent hereby certifies that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the State or the filing of suit

against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XII. COMPLIANCE WITH OTHER LAWS

38. Respondent shall perform all actions required pursuant to this Order in accordance with all applicable local, state, and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-site actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements ("ARARs") under federal environmental or state environmental or facility siting laws. Respondent shall identify ARARs in the Work Plan subject to EPA approval. The Work Plan shall also describe for each identified ARAR, the measures to be taken to ensure compliance with the ARAR.

XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

39. In the event of any action or occurrence during performance of the Work which causes or threatens a release of waste material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. Respondent shall take these actions in accordance with all applicable provisions of this Order, including but not limited to the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondent shall also immediately notify EPA's Project Coordinator or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Response and Removal Branch, EPA Region VII, (913) 281-0991, of the incident or on-Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondent shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XV (Payment of Response Costs).

40. In addition, in the event of any release of a hazardous substance from the Site, Respondent shall immediately notify EPA's Project Coordinator at (636) 326-4720 and the National Response Center at (800) 424-8802. Respondent shall submit a written report to EPA within seven (7) days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

XIV. AUTHORITY OF EPA'S PROJECT COORDINATOR

41. The EPA's Project Coordinator shall be responsible for overseeing Respondent's implementation of this Order. The EPA's Project Coordinator shall have the authority vested in a Remedial Project Manager ("RPM") and an On-Scene Coordinator ("OSC") by the NCP, including the authority to halt, conduct, or direct any Work required by this Order, or to direct any other removal action undertaken at the Site. Absence of EPA's Project Coordinator from the Site shall not be cause for stoppage of work unless specifically directed by EPA's Project Coordinator.

XV. PAYMENT OF RESPONSE COSTS

42. Payments for Oversight Costs.

a. Respondent shall pay EPA all Oversight Costs not inconsistent with the NCP. On a periodic basis, EPA will send Respondent a bill requiring payment, including an Itemized Cost Summary (SCORPIOS Report). Respondent shall make all payments within thirty (30) days of receipt of each bill requiring payment, except as otherwise provided in Section XVI (Dispute Resolution) of this Order.

b. Respondent shall make all payments required by this Paragraph by a certified or cashier's check made payable to "St. Joe Minerals Corp. – Viburnum Special Account, EPA Hazardous Substance Superfund," referencing the name and address of the party making payment, EPA Site/Spill ID number 07ER and the docket number of this Order. Respondent shall send the check(s) to:

Mellon Bank
Attn: Superfund Accounting
EPA Region VII
(Comptroller Branch)
P.O. Box 371099M
Pittsburgh, PA 15251

c. At the time of payment, Respondent shall send a copy of the check, as well as any transmittal letter to Jeffrey Weatherford, EPA, Region VII, 212 Little Bussen Drive, Fenton, Missouri 63026.

d. The total amount to be paid by Respondent pursuant to Paragraph 42(a) shall be deposited in the St. Joe Minerals Corp. – Viburnum Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

43. In the event that the payment for Oversight Costs is not made within thirty (30) days of Respondent's receipt of a bill, Respondent shall pay Interest on the unpaid balance. The Interest on Oversight Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XVIII (Stipulated Penalties).

44. Respondent may dispute all or part of a bill for Oversight Costs submitted under this Order if Respondent alleges that EPA has made an accounting error or if Respondent alleges that a cost item is inconsistent with the NCP. If any dispute over costs is resolved before payment is due the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondent shall pay the full amount of the uncontested costs to EPA as specified in Paragraph 42 on or before the due date. Within the same time period, Respondent shall pay the full amount of the contested costs into an interest-bearing escrow account. Respondent shall simultaneously transmit a copy of both checks to the persons listed in Paragraph 42 above. Respondent shall ensure that the prevailing party or parties in the dispute shall receive the amount upon which they prevailed from the escrow funds plus interest within ten (10) days after the dispute is resolved.

XVI. DISPUTE RESOLUTION

45. The parties to this Order shall attempt to resolve, expeditiously and informally, any disagreements concerning this Order.

46. If Respondent objects to any EPA action taken pursuant to this Order, Respondent shall notify EPA in writing of its objection(s) within twenty (20) days of such action, unless the objection(s) has/have been informally resolved.

47. Such notice shall set forth the specific points of the dispute, the position Respondent maintains should be adopted as consistent with the requirements of this Order, the factual and legal basis for Respondent's position, and all matters Respondent consider necessary for the EPA's determination. The EPA and Respondent shall then have fourteen (14) working days from EPA's receipt of Respondent's objections to attempt to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing, signed by each party, and incorporated into this Order. If the parties are unable to reach agreement within this fourteen (14) working day period, the matter shall be referred to the Regional Judicial Officer. The EPA shall provide notice in writing of its position, including the position EPA maintains should be adopted as consistent with the requirements of this Order, the factual and legal basis for EPA's position, and all matters EPA considers necessary for the Regional Judicial Officer's determination. Respondent may reply to EPA's notice of its position. The EPA may, but shall not be required to give notice, as described above, if it has already provided written notice, if it has already provided written reasons, or

already provided a written explanation pursuant to a notice of disapproval of a plan, report or other item.

48. The Regional Judicial Officer shall then decide the matter, consistent with the NCP and the terms of this Order, on the basis of those written materials described in this Section, and any meeting held with Respondent and EPA. The Regional Judicial Officer will then provide a written statement of his/her decision to both parties to the dispute, which shall be incorporated into this Order, provided that incorporation of the Judicial Officer's decision into the Order shall not deprive Respondent of the right to contest the validity of the Regional Judicial Officer's decision in any judicial action taken by the EPA to enforce this Order, or the terms thereof, as provided by Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

49. All materials submitted pursuant to this Section, shall be kept as part of any Administrative Record made pursuant to 40 C.F.R. §§ 300.415 and 300.820 for any response action resulting for this Site.

50. Notwithstanding any other provisions of this Order, no action or decision by EPA, including without limitation, decisions of the Regional Judicial Officer pursuant to this Order, shall constitute final EPA action giving rise to any rights to judicial review prior to EPA's initiation of judicial action to compel Respondent's compliance with the requirements of this Order.

XVII. FORCE MAJEURE

51. Respondent agrees to perform all requirements of this Order within the time limits established under this Order, unless the performance is delayed by a *force majeure*. For purposes of this Order, a *force majeure* is defined as any event arising from causes beyond the control of Respondent, or of any entity controlled by Respondent, including but not limited to its contractors and subcontractors, which delays or prevents performance of any obligation under this Order despite Respondent's best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

52. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a *force majeure* event, Respondent shall immediately notify EPA orally when Respondent first knew that the event might cause a delay. Within five (5) days thereafter, Respondent shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude

Respondent from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

53. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Order that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Respondent in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XVIII. STIPULATED PENALTIES

54. Respondent shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 55 and 56 for failure to comply with the requirements of this Order specified below, unless excused under Section XVII (*Force Majeure*). "Compliance" by Respondent shall include completion of the activities under this Order or any Work Plan or other plan approved under this Order identified below in a manner acceptable to EPA and in accordance with all applicable requirements of law, this Order, the SOW, and any plans or other documents approved by EPA pursuant to this Order and within the specified time schedules established by and approved under this Order. The EPA shall take Respondent's good faith efforts to comply with the requirements of this Order into consideration when making a determination to seek stipulated penalties.

55. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 55.b.:

Penalty Per Violation Per Day	Period of Noncompliance
$ 1,000	1st through 14th day
$ 2,000	15th through 30th day
$ 3,000	31st day and beyond

b. Compliance Milestones:

(1) Failure to submit the Work Plan in a timely or adequate manner.
(2) Failure to submit Health and Safety Plan in a timely or adequate manner.
(3) Failure to follow quality assurance and sampling guidance and procedures.
(4) Failure to timely submit the QAPP in a timely or adequate manner.
(5) Failure to submit Final Report in a timely or adequate manner.
(6) Failure to meet deadlines established by the Work Plan.

56. Stipulated Penalty Amounts - Other Deliverables or Violations.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 56.b.:

Penalty Per Violation Per Day	Period of Noncompliance
$ 500	1st through 14th day
$ 1,000	15th through 30th day
$ 2,000	31st day and beyond

b. Compliance Milestones:

(1) Any other violation of this Order, other than those milestones identified in Paragraph 55.b.

57. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order.

58. Following EPA's determination that Respondent has failed to comply with a requirement of this Order, EPA may give Respondent written notification of the failure and describe the noncompliance. The EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in this Section regardless of whether EPA has notified Respondent of a violation.

59. All penalties accruing under this Section shall be due and payable to EPA within thirty (30) days of Respondent's receipt from EPA of a demand for payment of the penalties, unless

Respondent invokes the dispute resolution procedures under Section XVI (Dispute Resolution). All payments to EPA under this Section shall be paid by certified or cashier's check made payable to "EPA Hazardous Substances Superfund," shall be mailed to Mellon Bank, Attn: Superfund Accounting, EPA Region VII (Comptroller Branch), P.O. Box 371099M, Pittsburgh, PA 15251, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID Number 07ER , the EPA Docket Number which appears on the face of this Order, and the name and address of the party making payment. Copies of the check paid pursuant to this Section, and any accompanying transmittal letter, shall be sent to EPA as provided in Paragraph 42.

60. The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Order.

61. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until fifteen (15) days after the dispute is resolved by agreement or by receipt of EPA's decision. The Regional Judicial Officer shall have the discretion to reduce any amount of stipulated penalties, initially demanded by EPA, as indicated in his/her decision.

62. If Respondent fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 59. Nothing in this Order shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Order or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(*l*) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(*l*), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(*l*) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Order or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by EPA). Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Order.

XIX. COVENANT NOT TO SUE BY EPA

63. In consideration of the actions that will be performed and the payments that will be made by Respondent under the terms of this Order, and except as otherwise specifically provided in this Order, EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for performance of the Work and for recovery of Oversight Costs. This covenant not to sue shall take effect upon receipt by EPA of the Oversight Costs due under Section XV of this Order and any

Interest or Stipulated Penalties due for failure to pay Oversight Costs as required by Sections XV and XVIII of this Order. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondent of their obligations under this Order, including, but not limited to, payment of Oversight Costs pursuant to Section XV. This covenant not to sue extends only to Respondent and does not extend to any other person.

XX. RESERVATIONS OF RIGHTS BY EPA

64. Except as specifically provided in this Order, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

65. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. The EPA reserves and this Order is without prejudice to all rights against Respondent with respect to all other matters, including, but not limited to:

a. Claims based on a failure by Respondent to meet a requirement of this Order;

b. Liability for costs not included within the definition of Oversight Costs;

c. Liability for performance of response action other than the Work;

d. Criminal liability;

e. Liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

f. Liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and

g. Liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

66. Work Takeover. In the event EPA determines that Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an

endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondent may invoke the procedures set forth in Section XVI (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Notwithstanding any other provision of this Order, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXI. COVENANT NOT TO SUE BY RESPONDENT

67. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Oversights Costs, or this Order, including, but not limited to:

a. Any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. Any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Missouri Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. Any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Site.

Except as provided in Paragraph 70 (Waiver of Claims) these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 65(b), (c), and (e) - (g), but only to the extent that Respondent's claim arises from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

68. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XXII. OTHER CLAIMS

69. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

70. Except as expressly provided in Section XIX (Covenant Not to Sue by EPA), nothing in this Order constitutes a satisfaction of, or release from, any claim or cause of action against Respondent, or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

71. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIII. CONTRIBUTION PROTECTION

72. The Parties agree that Respondent is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Order. The "matters addressed" in this Order are the Work and Oversight Costs paid by Respondent. Nothing in this Order precludes the United States or Respondent from asserting any claims, causes of action, or demands against any persons not parties to this Order for indemnification, contribution, or cost recovery.

XXIV. INDEMNIFICATION

73. Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees, and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Order. In addition, Respondent agrees to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under its control, in carrying out activities pursuant to this Order. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Order. Neither Respondent nor any such contractor shall be considered an agent of the United States.

74. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

75. Respondent waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance

of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXV. INSURANCE

76. At least seven (7) days prior to commencing any on-site work under this Order, Respondent shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit. Within the same time period, Respondent shall provide EPA with certificates of such insurance and, if requested, a copy of each insurance policy. In addition, for the duration of the Order, Respondent shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondent in furtherance of this Order. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVI. MODIFICATIONS

77. This Consent Order may be modified by mutual agreement of Respondent and EPA. Except as provided in Paragraph 80 below, any such amendment shall be in writing and shall be signed by an authorized representative of Respondent and EPA. Unless otherwise provided for in the amendment, the effective date of any such modification shall be the date on which the written agreement or modification is signed by EPA after signature by Respondent. All modifications shall be incorporated into and become a part of this Consent Order.

78. If Respondent seeks permission to deviate from any approved work plan, schedule, or the SOW, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from the Project Coordinator pursuant to Paragraph 77.

79. No informal advice, guidance, suggestion, or comment by EPA's Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

XXVII. ADDITIONAL WORK

80. If EPA determines that additional work not included in an approved plan is necessary to satisfy the scope and substance of this Order, EPA will notify Respondent of that determination. The scope and substance of the Removal Action to be performed by Respondent is set forth in Section VIII of this Order and the SOW incorporated herein as Appendix A to this Consent Order. Respondent shall confirm its willingness to perform the additional work in writing to EPA within thirty (30) days of receipt of the EPA notice or Respondent shall invoke the dispute resolution provisions of Section XVI of this Order. Subject to resolution of any dispute, Respondent shall implement the additional tasks which EPA determines are necessary. Unless otherwise stated by EPA, or unless Respondent invokes dispute resolution, within thirty (30) days of receipt of notice from EPA that additional work is necessary, Respondent shall submit for approval by EPA a work plan for the additional work. This work plan shall conform to the applicable requirements of Section VIII (Work to be Performed) of this Order. Upon EPA's approval of the plan pursuant to Section VIII, Respondent shall implement the plan for additional work in accordance with the provisions and schedules contained therein.

XXVIII. NOTICE OF COMPLETION OF WORK

81. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order (e.g., record retention, etc.), EPA will provide written notice to Respondent. If EPA determines that any such Work has not been completed in accordance with this Order, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified Work Plan shall be a violation of this Order.

XXIX. SEVERABILITY/INTEGRATION/APPENDICES

82. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

83. This Order and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Order. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Order.

XXX. EFFECTIVE DATE

84. This Order shall become effective upon receipt by Respondent of a fully executed copy of this Order, as shown by the date on the certified mail receipt.

In the Matter of St. Joe Minerals Corp. - Viburnum Site, Iron County, Missouri

IT IS SO ORDERED.

DATE: 4/30/07

Cecilia Tapia
Director
Superfund Division
U.S. Environmental Protection Agency, Region VII

DATE: 4/30/2007

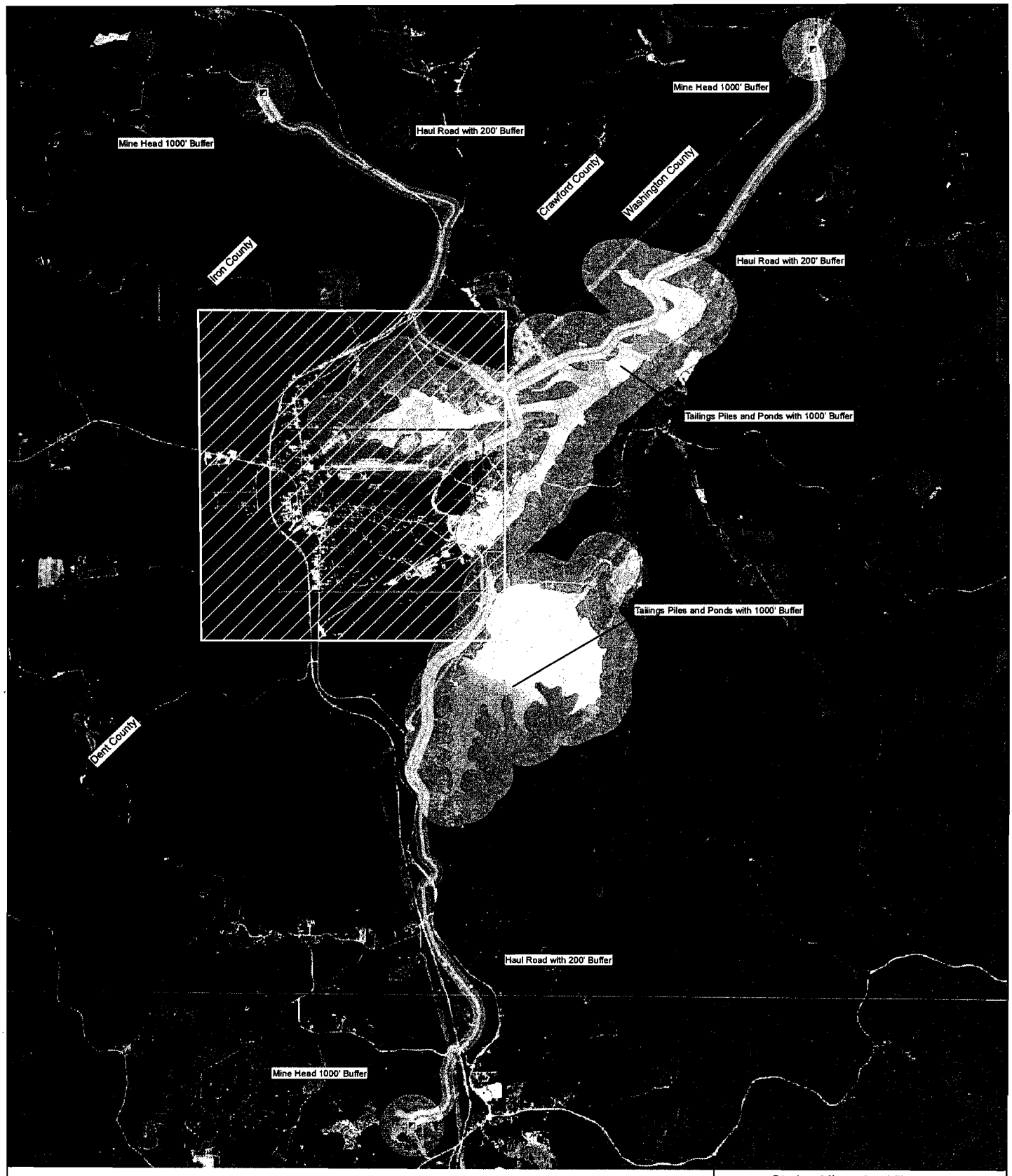
J. Daniel Breedlove
Assistant Regional Counsel
U.S. Environmental Protection Agency, Region VII

The representative of Respondent who has signed this signature page certifies that he/she is fully authorized to enter into the terms and conditions of this Order and to bind the party he/she represents to this document.

For THE DOE RUN RESOURCES CORPORATION

DATE: 24 APR 07

Louis Marucheau
Vice President Law



Legend

- Mine Head Frame
- Proposed Residential Sampling Area
- Viburnum City Limit
- County Line

N

0 2,000 4,000

Feet

Source: Crawford County, Dent County, Iron County, and Washington County, MO DOQ Tileset, 2003 FSA Imagery

St. Joe Minerals - Viburnum
Vibumum, Missouri

Appendix A

Tetra Tech EM Inc.

Date 08/16/05 Drawn By Roger Stull Project No. 03011 L 05.0259 00

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APPENDIX B
ADMINISTRATIVE ORDER ON CONSENT
STATEMENT OF WORK

Removal Action for Surface Soil Characterization and Residential Soil Replacement
St. Joe Minerals – Viburnum Site
Time-Critical Removal Action

Objective

The objectives of the removal action to be performed by the Respondent are as follows:

1. To conduct certain sampling activities at any previously unsampled residential property or child high-use area within the Site as defined by the Administrative Order on Consent (AOC) and identified on Appendix A to the AOC. This obligation to sample shall continue until final demobilization, as approved in writing by the On-scene Coordinator, of excavation equipment from the Site. The On-scene Coordinator shall provide his written approval of final demobilization in a timely manner. The sampling activities will be conducted consistent with applicable portions of EPA's *Superfund Lead-Contaminated Residential Sites Handbook, OSWER 9285.7-50, August 2003* and the approved *"Workplan for Removal Preliminary Assessment and Site Inspection, St. Joe Minerals Corp – Viburnum Site,"* Newfields, November 10, 2005.

2. To provide a surface soil replacement program for any residential property or child high use area located within the Site and contaminated as a result of mining related activities. The Respondent will also provide a surface soil replacement program for properties or areas sampled pursuant to Objective No. 1 and where lead concentrations exceed 1,200 parts per million (ppm) and such lead concentrations are the result of mining related activities. The properties or areas to be remediated are those with lead concentrations in soil exceeding 1,200 ppm or those properties greater than 400 ppm where a child with an Elevated Blood Lead (EBL) resides, as identified during the Preliminary Assessment/Site Inspection (PA/SI) conducted by Respondent or identified pursuant to Task 1 of the SOW. The surface soil replacement activities will be conducted consistent with applicable portions of EPA's *Superfund Lead-Contaminated Residential Sites Handbook, OSWER 9285.7-50, August 2003.*

3. To provide High Efficiency Particulate Air (HEPA) household vacuums to each home at the Site where the soils in any portion of the yard exceeded 1,200 ppm and removal activities are required under the Order to address the soil contamination.

4. When allowed by the landowner, to conduct indoor cleaning of home interiors at each home at the Site where the soils in any portion of the yard exceeded 1,200 ppm and removal activities are required under the Order to address the soil contamination.

Task 1 – Soil/Gravel Characterization

Respondent shall characterize the surface soils/gravels of residences within the Site that were not sampled during the PA/SI and the residents or owners have subsequently granted access. Sampling priority will be given to residences where Respondent is notified that an

Elevated Blood Level (EBL) child under seventy-two (72) months of age resides therein. The sampling will be conducted in accordance with the field sampling plan (FSP) and Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP). The EPA recognizes Respondent has conducted similar activities at this and other sites. As a result, Respondent may modify EPA-approved Field Sampling (FSP), Quality Assurance Project (QAPP), and Health and Safety (HASP) plans from other sites to meet the requirements of the Order and this SOW. The modified plans are subject to EPA review and approval procedures. Specifically, the plans should be modified to address, at a minimum, post soil-excavation sampling, sampling of contaminated soil for treatment, and sampling of clean soil backfill. Multi-aliquot soil samples will be collected from the upper one inch of soil in each quadrant of a residential property. Separate multi-aliquot soil samples will be collected from drip zones, down spout outfalls, driveways, garden areas, and child play areas.

Analysis will be performed using an X-Ray Fluorescence instrument with 5% of the samples submitted to a laboratory for analysis. The Respondent shall prove, in advance, to EPA's satisfaction that each laboratory it uses is qualified to conduct the proposed work. The laboratory shall have and follow a quality assurance program. Data shall be provided to EPA in both paper copy and in a Geographical Information System (GIS) format.

Task 2 - Health Education and Risk Reduction

For any residence where the homeowner and current resident have not already received such materials, Respondent will provide the homeowner and current resident a package of educational material provided by EPA. In addition, Respondent shall provide the homeowner or current resident with the sampling results in a "Sampling Results Letter" no later than thirty (30) days from the date Respondent receives from the laboratory final validated sampling results. Respondent shall send EPA a copy of the "Sampling Results Letter" and the sampling results, without the educational materials.

Task 3 – Soil/Gravel Replacement

Soil/Gravel replacement shall be conducted at all residential properties or any child high-use areas within the Site where sampling indicates surface soil/gravel lead concentrations exceed 1,200 ppm. In a yard that contains a quadrant that exceeds 1,200 ppm, Respondent shall also address quadrants with lead concentrations that exceed 400 ppm, in those areas of the quadrant that exceed 400 ppm, unless the only area greater than 1,200 ppm is a gravel area associated with a driveway, in which case the soil areas less than 1,200 ppm will be addressed under a non-time-critical order. Respondent shall also address soil replacement at any yard with lead levels greater than 400 ppm where Respondent is notified that a child age 72 months or younger resides or where Respondent pursuant to Task 6 becomes aware that a child aged 72 months or younger resides.

Priority for soil replacement shall be given to any residence where an EBL child under 72 months of age resides. Soil replacement in any quadrant shall be conducted within one hundred (100) feet of a residence, as measured from the furthest outside wall which gives the greatest distance from the residence. Respondent shall also remove and replace any adjacent contaminated soils which could potentially re-contaminate the property in question due to its proximity. Replacement soil shall be free of contamination and shall not contain lead in excess

of 240 ppm. During soil replacement, an area may be excavated to a depth of less than twelve (12) inches provided that confirmatory sampling indicates that remaining soils have a lead concentration of less than 400 ppm. If soils at a depth of 12 inches exceed 1,200 ppm, a barrier will be placed as a marker before backfilling. Where there is gravel that requires replacement and the gravel is deeper than one (1) foot and greater than 1,200 ppm, all of the gravel and associated fines shall be removed to prevent recontamination due to the high porosity of gravel, regardless of depth.

All areas of a residence requiring soil replacement under this SOW shall undergo such soil replacement during one mobilization event from construction crews, unless the only area exceeding 1,200 ppm is a gravel area, in which case the non-time-critical soil portions of the yard will be addressed under a non-time-critical order. Residential soil replacement shall be prioritized in accordance with the following schedule:

First priority -	Residence where EBL child under 72 months of age resides
Second priority -	Residence where child under 72 months of age resides
Third priority -	All other residences or child high use areas exceeding removal action level of 1,200 ppm.
Fourth priority -	Residence where child under 72 months of age resides and there are no quadrants above 1,200 ppm

Soil/gravel removal activities shall commence when seasonal weather conditions are conducive to excavation and soil replacement but shall not commence later than 30 days after EPA approval of the Work Plan, and all removals except for the Fourth Priority shall be completed by November 15, 2007, unless agreed to by the Respondent and EPA. Reasonable efforts will be undertaken to complete the Fourth Priority residences within the same timeframe.

Task 4: Provision of High Efficiency Particulate Arresting (HEPA) Household Vacuums

Within thirty (30) days of EPA's approval of the Work Plan, Respondent shall supply household vacuum cleaners equipped with HEPA filters to each resident at the Site where the yard soils/gravels exceed 1,200 ppm for lead and removal activities are required under the Order to address the soil contamination. The HEPA filter must be capable of removing particles of 0.3 microns or greater from air at 99.97% efficiency or greater.

Task 5: Indoor Cleanings

If the landowner agrees, within thirty (30) days of the replacement with clean soil/gravel, Respondent shall conduct interior cleanings at all residences where the soils in the yard exceeded 1,200 ppm and removal activities are required under the Order to address the lead contamination. Interior cleanings shall be thorough and in accordance with applicable protocols established by the Department of Housing and Urban Development (HUD) for interior lead-dust cleaning located at the following website: http://www.hud.gov/offices/lead/guidelines/hudguidelines/index.cfm. Respondent shall submit, as part of the Work Plan, an indoor cleaning regimen that incorporates the applicable protocols. The EPA anticipates that the cleaning regimen will be less stringent than regimens necessary to address lead paint abatement. However, the proposed cleaning regimen must be flexible enough

to address a wide range of scenarios. The EPA's On-scene Coordinator agrees to make himself available to representatives of the Respondent during the drafting of the Work Plan to discuss its requirements.

Task 6: Identification of Residences with Children Eligible for Soil/Gravel Removal

In order to identify residences with children aged 72 months or younger that would be eligible for the soil/gravel removal action under this AOC, Respondent shall post at the Viburnum City Hall notice of availability of the soil/gravel removal program for residences with children aged 72 months or younger. Respondent shall also send a mailing to all residents in the removal action area advising them that any residence with a child aged 72 months or younger may participate in the soil/gravel removal program. This mailing is to be repeated on an annual basis until non-time-critical residences in the removal action area are addressed under an EPA order.

Deliverables

1. **Work Plan** - The Respondent shall prepare a Work Plan that describes the soil characterization and replacement activities, as well as interior dust cleaning activities. The Work Plan shall include a Field Sampling Plan, a Quality Assurance Project Plan, and Health and Safety Plan in accordance with the terms of the Order.

2. **Sampling Results Letters** - This document will be a copy of the letter provided to the property owner (and, where applicable, the current resident), but shall not include copies of the attached health education materials.

3. **Monthly Status Reports** - Beginning thirty (30) days from the effective date of the Order, Respondent shall prepare a monthly status report in accordance with the Order. Each monthly reporting period will consist of a calendar month and subsequent reports shall be due monthly on or before the tenth (10^{th}) day of the month following the reporting period. The purpose of this report is to document progress, report upcoming events, and to inform EPA of problems or important issues.

4. **Removal Final Report** - The Respondent shall prepare a Removal Final Report in accordance with requirements of the Order.

DELIVERABLE	SCHEDULE
Work Plan Field Sampling Plan Quality Assurance Sampling Plan (QASP) Health and Safety Plan (HASP)	within thirty (30) days of the effective date of the Order
Notice of Sampling Activities	at least seven (7) days prior to beginning sampling activities
Sampling Results Letter to Homeowner with copy to EPA	no more than thirty (30) days from the date Respondent receives validated analytical results from the laboratory for soils sampled at the residence
Monthly Status Reports	First report due thirty (30) days after the effective date of the Order and subsequent reports due on or before the tenth (10^{th}) day of the month until the

	project is completed.
Final Report	within ninety (90) days of completion of all Work required by the Order

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

APR 11 2007

ENFORCEMENT ACTION MEMORANDUM

SUBJECT: Request for a Removal Action at the St. Joe Minerals – Viburnum Site in Iron, Crawford, and Washington Counties, Missouri
Time-Critical Removal

FROM: Jeffrey G. Weatherford, P.E.
On-Scene Coordinator (OSC)

THRU: Scott Hayes, Chief
Emergency, Response, & Removal Branch

TO: Cecilia Tapia, Director
Superfund Division

I. PURPOSE

The purpose of this Enforcement Action Memorandum is to request and document approval of the proposed removal action described herein for the St. Joe Minerals – Viburnum Site (Site). Residential properties or other areas conducive to attracting children where the soil contains lead concentrations equal to or greater than 1,200 parts per million (ppm) will be included in the removal action. The primary objective of this action is to eliminate or reduce potential ingestion exposure due to the presence of lead and other heavy metals in the soils.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Removal Site Evaluation

Mining-related activities have occurred in and around the city of Viburnum, Missouri, since about 1960. As a result of these mining-related activities, hazardous substances, pollutants and/or contaminants have been released into the environment in quantities sufficient to present an imminent and substantial danger to public health and welfare.

In September 2005, the Environmental Protection Agency (EPA) issued an Administrative Order on Consent to the Doe Run Company (corporate successor to St. Joe Minerals Corporation) to conduct a removal Preliminary Assessment/Site Inspection (PA/SI). The primary objective of the PA/SI was to identify lead contaminated properties in and around the city of Viburnum, Missouri.

In July 2006, the Doe Run Company submitted the PA/SI report to EPA that detailed the results of the sampling investigation. Out of an estimated 315 homes, Doe Run sampled 304 residential or child high-use properties. Lead levels in the soil exceeded EPA's screening level of 400 ppm at 222 properties (73 percent). Lead levels above the screening level ranged from 400 ppm to greater than 38,000 ppm. Of these 222 properties, approximately 64 exceeded the time-critical action level of 1,200 ppm.

The primary areas at this Site that require action are lead contaminated soils in yards and other child high-use areas.

2. Physical Location and Site Characteristics

The Site is mainly located in Iron County in the southeastern region of Missouri. It is part of what is commonly known as the New Lead Belt – or Viburnum Trend – which began producing lead around 1960 and continues production to this day.

The Doe Run Company - Viburnum Division (formerly St. Joe Minerals Corp - Viburnum) is located in and near the city of Viburnum, Missouri, at the northern end of the Viburnum Trend Lead Mining District. The Viburnum Division includes four mines where ore was brought to the surface: Viburnum Mine 27 in Crawford County, Viburnum Mine 29 in Washington County, Viburnum Mine 28 in Iron County, and Casteel Mine in Iron County. The mined ore was previously transported over privately owned haul roads to the Viburnum Central Mill which was located at Viburnum Mine 28 in Iron County and is currently inactive. From the Viburnum Central Mill, the processed lead (called lead concentrate) was hauled to various smelters or shipped overseas. Currently, only Viburnum Mine 29 and the Casteel Mine are operating. Viburnum Mine 27 was closed in 1983; Viburnum Mine 28 was closed in 2004. Ore from the Viburnum Mine 29 is currently brought to the Viburnum Central Mill Complex where it is crushed and then hauled over public roadways, primarily to the Buick Mill for concentrating. The lead ore from the Casteel Mine is also hauled over public roadways to other mine ore concentrators within the Viburnum Trend Mining District for further processing. In addition to the mines and mills, there are two large tailings piles that were created from processing of ore at the Viburnum Central Mill Complex.

During the construction development and early operation of these mines it was not uncommon for lead contaminated materials such as tailings and/or *poor rock* to be used for construction materials in the building of the city of Viburnum, which was built

by the St. Joe Minerals Corporation to support the mining operations. Poor rock is a term used to describe low grade ore that is removed during mine development but not purposely mined or concentrated. Poor rock commonly contains higher than one percent lead (10,000 ppm). In addition to the mine waste scenario, the Central Mill in Viburnum was a likely source of air pollution and lead fallout from hauling, crushing, and processing of ore and/or concentrate, particularly prior to requirements to reduce air emissions.

3. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant

The primary contaminant of concern at this Site is lead and lead compounds. Doe Run and EPA have documented total lead concentrations in soil in residential yards at levels exceeding 1,200 ppm. Doe Run has currently identified 64 residential yards in the city of Viburnum area that exceed 1,200 ppm and lead was detected at levels greater than 38,000 ppm in the city of Viburnum Park.

Lead and lead compounds are hazardous substances as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and are hazardous substances listed at 40 Code of Federal Regulations (CFR) § 302.4. Lead and lead compounds have been detected in the soils and other areas at the Site.

4. National Priority List (NPL) Status

Site is not currently on or proposed for listing on the NPL.

5. Maps, Pictures, and Other Graphic Representations

A map depicting the Site is attached.

B. Other Actions to Date

There have been no known EPA response actions at this Site to reduce the risks posed by lead contamination. However, the Doe Run Company has conducted a limited number of voluntary removal actions at selected properties, primarily where a child resides with an elevated blood lead level.

C. State and Local Authorities' Roles

EPA is closely coordinating with the Missouri Department of Natural Resources, the Missouri Department of Health and Senior Services (MDHSS), and the Iron County Health Department. These agencies, EPA, and the Agency for Toxic Substances and Disease Registry, hold monthly conference calls to stay updated and discuss various issues with the Site.

Local health officials are assisting in health education and blood lead testing, but are hampered by a general lack of funding. EPA is assisting the local health departments in conducting health education on lead prevention via a cooperative agreement or grant. The MDHSS has agreed to waive the laboratory fee on blood lead testing to encourage more participation. Iron County has one of the highest blood lead testing participation rates in the state.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT AND STATUTORY AND REGULATORY AUTHORITIES, ENDANGERMENT DETERMINATION, PROPOSED ACTIONS, AND ESTIMATED COSTS

A. Threats to Public Health or Welfare

At any release, regardless whether the Site is included on the NPL, where the lead agency makes the determination based on factors in 40 CFR Part 300.415 (b)(2) where there is a threat to public health or welfare of the United States or the environment, the lead agency may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release. The factors in 40 CFR Part 300.415 (b)(2) that apply to this Site are:

300.415(b)(2)(i) -- Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, or pollutants, or contaminants.

Elevated concentrations (greater than 1,200 ppm) of lead have been found throughout the Site. Children playing in and around the contaminated areas have the highest potential to be exposed. In addition, sampling has determined that numerous private drinking water wells have been contaminated with lead.

Lead is a metal and can be listed as a hazardous waste in the regulations for the Resource Conservation and Recovery Act (RCRA) if the material fails the Toxicity Characteristic Leaching Procedure (TCLP). Lead is classified by EPA as a probable human carcinogen and is a cumulative toxicant. The early effects of lead poisoning are nonspecific and difficult to distinguish from the symptoms of minor seasonal illnesses. Lead poisoning causes decreased physical fitness, fatigue, sleep disturbance, headache, aching bones and muscles, digestive symptoms (particularly constipation), abdominal cramping, nausea, vomiting, and decreased appetite. With increased exposure, symptoms include anemia, pallor, a lead line on the gums, and decreased handgrip strength. Alcohol and physical exertion may precipitate these symptoms. The radial nerve is affected most severely causing weakness in the hands and wrists. Central nervous system effects include severe headaches, convulsions, coma, delirium, and possibly death. The kidneys can also be damaged after long periods of exposure to lead, resulting in loss of kidney function and progressive azotemia. Reproductive effects in women include decreased fertility, increased rates of miscarriage and stillbirth, decreased birth weight, premature rupture of membrane, and/or pre-term delivery. Reproductive effects in men include erectile dysfunction, decreased sperm count, abnormal sperm shape and size, and

reduced semen volume. Lead exposure is associated with increases in blood pressure and left ventricular hypertrophy. A significant amount of lead that enters the body is stored in the bone for many years and can be considered an irreversible health effect.

Children are more vulnerable to lead poisoning than adults. For children, lead can damage the central nervous system, kidneys, and reproductive system. At higher levels, it can cause comas, convulsions, and death. Even low levels of lead are harmful and are associated with decreased intelligence, impaired neurobehavioral development, decreased stature and growth, impaired hearing acuity, and possibly high blood pressure.

300.415(b)(2)(iv) -- High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

Lead has been detected in surface soils above EPA's screening level of 400 ppm and above the proposed action level of 1,200 ppm. Lead contaminated soils may migrate via airborne dusts, surface runoff, percolation into groundwater, construction activity, or children tracking soils/dusts into their homes after playing in the affected areas.

IV. ENDANGERMENT DETERMINATION

The actual release of a hazardous substance at this Site, if not addressed by implementing the response action selected in this Action Memorandum, presents an imminent and substantial endangerment to the health of the public that comes in contact with the Site and to public welfare and the environment.

V. PROPOSED ACTIONS AND ESTIMATED COST

A. Proposed Actions

1. Proposed Action Descriptions

SOIL/WASTE EXCAVATION, REMOVAL, AND REPLACEMENT

The Potentially Responsible Party (PRP) will excavate and remove all soils and/or wastes from properties where a composite sample exceeds a concentration of 1,200 mg/kg lead. In order to avoid unnecessary mobilization and demobilization and being intrusive to the residents, the PRP will excavate all soils exceeding 400 mg/kg in yards where at least one quadrant, cell, or zone exceeds 1,200 mg/kg.

The PRP will excavate and remove all soils and/or waste from properties where a composite sample exceeds a concentration of 400 mg/kg lead and the property is a highly used area for younger children (72 months of age or younger) or a residence where a young child has an EBL greater than 10 micrograms per deciliter (µg/dl).

Properties with soil concentrations exceeding action levels will be excavated up to a depth of 12 inches. The excavation will be conducted with excavating machinery, such as skid loaders, dozers, excavators, backhoes, and hand tools. If soils at a depth of 12 inches exceed 1,200 mg/kg excavation may continue until concentrations fall below 1,200 mg/kg. The PRP may choose to place a warning barrier if soils continue to exceed 1,200 mg/kg below 12 inches.

After removing the soils from the affected area or areas and placing the warning barriers where required, the excavated soils will be replaced with clean soils. Clean soils are soils that have been analyzed for lead and results indicate that the lead concentration is below 240 mg/kg and all other hazardous substances, pollutants, or contaminants are below residential soil screening levels determined by the EPA or by referring to the Region 9 Preliminary Remediation Goal tables found at:

http://www.epa.gov/Region9/waste/sfund/prg/index.htm.

Garden soils in any yard that exceed 400 ppm lead (based on discrete samples) will be excavated to below 400 ppm or to a minimum depth of 24 inches. If soils at a depth of 24 inches exceed 1,200 ppm, excavation may continue in 6- to 12-inch lifts until the soil concentrations fall below 1,200 ppm. In the alternative, if soils continue to exceed 400 ppm at a depth of 24 inches, the PRP may cease excavation and place a warning barrier.

SOIL TREATMENT AND DISPOSAL

The PRP shall sample soil for conducting the TCLP according to the requirements of SW-846-Chapter 9 (representative sampling for waste piles). Soils that exceed the TCLP limits for lead must be properly treated with an appropriate lead stabilization chemical and resampled until the levels are below the TCLP limits for lead. Treatment of soils will not be conducted at the residence.

Transportation, treatment, storage, and disposal of the excavated material shall be in accordance with all applicable local, state, or federal requirements.

POST REMOVAL SITE CONTROL

It is EPA policy that Post Removal Site Control (PRSC) shall be the responsibility of the state, PRP, or the remedial program. At this time it is uncertain what, if any, PRSC will be needed. When that determination is made, the OSC working through regional management will attempt to obtain PRSC agreements, as appropriate.

If the PRP decides to leave contamination above 1,200 ppm at depths of one foot or greater, then institutional controls may be necessary to reduce the potential for recontamination of the yard. EPA will work with the PRP and all appropriate local, state, and/or federal agencies to assure that the proper controls are in place to reduce such a risk.

2. Contribution to Remedial Performance

The enforcement-lead actions proposed in this Action Memorandum should not impede any future remedial plans or other response. This is consistent with any long-term remedy in that it addresses the direct-contact threat posed by lead contamination at this Site.

3. Action/Cleanup Level

Yards with soils contaminated with lead above 1,200 ppm will be excavated, treated if TCLP analysis fails, and reused as a vegetative cover on the Viburnum Tailings Pile. The contaminated soils will be disposed pursuant to a Remedial Action Permit (RAP). A RAP is a special form of permit issued under the authority of RCRA allowing owner/operators to treat, store, or dispose of hazardous remediation waste (defined by 40 CFR § 270.10) at a remediation waste management site. This RAP was issued to Doe Run under the authority of 40 CFR § 270, Subpart H.

All site-sampling activities for comparison to the action levels will be conducted in accordance with the approved Quality Assurance Project Plan.

4. Applicable Relevant and Appropriate Requirements (ARARs)

Section 300.415(j) of the National Contingency Plan (NCP) provides that fund-financed removal actions under Section 104 of and removal actions pursuant to CERCLA Section 106 shall, to the extent practicable considering the exigencies of the situation, attain ARARs under federal environmental or state environmental facility siting laws. The following specific ARARs have been identified for this action:

- Subtitle D of RCRA, Sections and 4001, et seq., 42 U.S.C. § 6941, et seq.; state or regional solid waste plans; and implementing federal and state regulations.

- Occupational Safety and Health Act, 29 CFR Part 1910 will be applicable to all actions.

- Subtitle C of RCRA, 42 U.S.C. Section 6901, et seq., 40 CFR Part 260, et seq.; and implementing federal and state regulations for contaminated soils that exhibit the characteristic of toxicity and are considered RCRA hazardous waste.

Subtitle C of RCRA is potentially applicable for the removal of soils contaminated with heavy metals from spills of lead concentrate, particularly if these soils exceed the TCLP regulatory threshold. However, soils contaminated with heavy metals from extraction, beneficiation, or processing of ores are exempt from the requirements of RCRA, Subtitle C pursuant to the Bevill amendment, Section 3001(b)(3)(A) of RCRA, 42 U.S.C. Section 6921(b)(3)(A) and implementing regulations, 40 CFR Section 261.4(b)(7).

- 40 CFR. Part 122, Section 122.26, National Pollution Discharge Elimination System storm water discharge regulations may be relevant and appropriate for management of storm water runoff from the repository.

- 49 CFR Parts 107, 171-177, Department of Transportation hazardous material transportation regulations may be relevant and appropriate for transportation of the contaminated soils to the repository.

- Subtitle H of RCRA, 42 U.S.C. Section 6901, et seq., 40 CFR Part 260, et seq.

Any lead-bearing wastes exceeding the TCLP regulatory threshold will undergo treatment in accordance with the requirements of RCRA.

5. Project Schedule

Response activities are anticipated to begin within 60 days of the signing of this Enforcement Action Memorandum. It is expected that this removal action will take several months to complete.

B. Estimated Costs

The PRP's estimated costs associated with this removal action are $2,000,000.

The costs associated with PRP oversight for this removal action are estimated as follows:

Extramural Costs

Oversight Costs	$100,000
20% Contingency	20,000
Removal Ceiling	$120,000

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Refer to the enforcement section for a breakout of these costs.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action will continue to potentially expose residents, particularly children, to the contaminated soils exceeding action levels.

VII. ENFORCEMENT

The total EPA costs for this removal action based on full cost-accounting practices are estimated to be $259,063.

Direct Extramural Costs	120,000
Direct Intramural Costs	50,000
EPA Indirect (52.39% of all costs)	89,063
Total Project Costs	$259,063

Direct costs include direct extramural and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost-accounting methodology effective October 2, 2000. These estimates do not include prejudgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

VIII. OUTSTANDING POLICY ISSUES

None.

IX. ENFORCEMENT

See attached Confidential Enforcement Addendum for this Site. For NCP consistency purposes, it is not a part of this Enforcement Action Memorandum.

X. RECOMMENDATIONS

This decision document represents the selected removal action for the contaminated soils at the Site. The removal action was developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site meet NCP Section 300.415(b) criteria for a removal action and I recommend your approval of the proposed removal action.

Approved:

Cecilia Tapia, Director
Superfund Division

4/11/07
Date

Attachments:

Site Map Showing Location of Site