

«Title» «First_Name» «Last_Name»
«Company_Name»
«Address_Line_1»
«Address_Line_2»
«City», «State» «ZIP_Code»

Dear «Title» «Last_Name»:

I am requesting your cooperation in a scientific study the U.S. Environmental Protection Agency is conducting to gather information about the hydraulic fracturing process for natural-gas production and to assess its potential impacts on drinking-water quality and public health. Congress has asked the EPA to conduct this study to address concerns that hydraulic fracturing may be affecting the safety of drinking water. In numerous U.S. communities where fracturing is under way, citizens are voicing serious concerns. The EPA is holding four major public meetings, and thousands of Americans throughout the nation are sharing their views on the study and expressing full support for this effort.

Natural gas is a key part of our nation's energy future. My request is part of an effort to ensure that the innovative development of domestic sources of energy proceeds in a way that protects our environment and our health. The EPA's study will proceed through a transparent, peer-reviewed process with significant stakeholder input. We are committed to using the best available science. We already have conducted extensive outreach and look forward to the continuing participation of industry, independent experts and the public.

The thoroughness of our study depends on timely access to detailed information about the methods used for fracturing. Much of this information is uniquely in the possession of companies performing fracturing operations. As Administrator of the EPA, I ask that you assist our scientists by providing information on several topics, including the chemical composition of fluids, standard operating procedures and the sites at which you engage in hydraulic fracturing.

If you have any questions, please have your staff contact Fred Hauchman or Jeanne Briskin in the EPA's Office of Research and Development at (202) 564-6705 or at hauchman.fred@epa.gov and briskin.jeanne@epa.gov.

We would appreciate your cooperation in this study. Please see the enclosure for our information request and more details.

Sincerely,

Lisa P. Jackson

Enclosure

cc: «CC_name»
«cc_title»

ENCLOSURE

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
INFORMATION REQUEST**

The U.S. Environmental Protection Agency (“EPA” or “Agency”) is conducting a scientific study to investigate the potential impact that hydraulic fracturing may have on drinking water quality and public health.

EPA is undertaking the hydraulic fracturing study at the request of the U. S. Congress, specifically the Appropriations Conference Committee of the House of Representatives. In its Fiscal Year 2010 budget report, the Committee asked EPA to carry out a study on the “relationship between hydraulic fracturing and drinking water, using a credible approach that relies on the best available science, as well as independent sources of information.” EPA requests your cooperation in providing information to support the study.

To help EPA evaluate the potential impact of hydraulic fracturing on drinking water quality and public health, EPA requests that you provide full and complete information in response to the questions set forth in this enclosure. Using your response, we will be identifying follow-up information that you or other companies in the industry should be able to provide to further support our study. **Please provide the information within thirty (30) days of receipt of this request.**

All submissions should be addressed to:

Rebecca Foster
USEPA/ORD/NRMRL/GWERD
P.O. Box 1198 (mailing address)
919 Kerr Research Dr. (delivery address)
Ada, OK 74820
580-436-8750

Additionally, EPA requests that within seven (7) days of receipt of this request, you provide notice as to whether or not you will submit all of the information requested. Please notify Jeanne Briskin regarding your decision about whether or not you will submit all of the information requested at briskin.jeanne@epa.gov.

Data provided in response to this request may be claimed as Confidential Business Information (CBI) and will be handled in accordance with EPA confidentiality regulations at 40 CFR Part 2, Subpart B. All responses which contain information claimed as CBI must be clearly marked as such. Persons submitting information, any portion of which they believe is entitled to treatment as CBI by EPA, must assert a business confidentiality claim in accordance with 40 CFR 2.203(b) for each such portion. This claim must be made at the time that the information is submitted to EPA. If a submitter does not assert a confidentiality claim at the time of submission, EPA will consider this as a waiver of any confidentiality claim and the information may be made available to the public by EPA without further notice to the submitter.

EPA is requesting that you provide this information voluntarily; however, to the extent that EPA does not receive sufficient data in response to this letter, EPA will be exploring legal alternatives to compel submission of the needed information. Since EPA will be considering using its legal authorities to require submission if necessary, the standard for any determination of eligibility for confidential treatment will be that which applies to information that has been submitted pursuant to a requirement by EPA. By submitting information in response to this letter, you are agreeing to this standard.

Please read this enclosure carefully and follow the directions provided. Your response is requested within thirty (30) days of receipt of this letter. Directions for properly submitting information responsive to this request and for claiming CBI are included in the enclosure. Depending on the information you may provide in response to this request, EPA may follow up with a request for your voluntary submittal of additional information.

The information requested herein is separate from information requests that have been issued by the U.S. House of Representatives Committee on Energy and Commerce in furtherance of the Committee's investigation into the potential impacts of hydraulic fracturing. EPA asks that you submit the information requested, even if the identical information was, or will be, provided to the Committee in furtherance of its investigation.

EPA requests that the information you submit be verified by, and submitted under an authorized signature by, a responsible corporate officer,¹ with the following certification:

I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and

¹ The term "responsible corporate officer," as used herein, means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.

complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

As referenced above, requests for confidential treatment of documents must be made when information or access to records is provided and in accordance with the instructions provided below.

INSTRUCTIONS

EPA requests that you follow the instructions below in developing and submitting responses to this information request:

- A. Respond to Each Request Completely. Each request is numbered and may contain subparts identified by lowercase letters. A separate response should be made to each request and subpart. Provide a separate narrative response to each request and subpart and clearly identify your responses with the number, subpart, and text of the request to which it corresponds. Each question posed should be answered. If the appropriate response is “none” or “not applicable,” that information should be so stated. You should also submit any documents you relied on in preparing your response.
- B. Source(s) of Response. Include with each narrative response, the name, position, and title of each person(s) who provided information responsive to the request.
- C. Electronic Submittal. You should submit your responses as one or more electronic files on a CD or similar media storage device in a form that allows EPA to readily retrieve and utilize the information using commercially available software. To that end, EPA requests that your responses be provided on the CD enclosed with this request and that you use the Excel spreadsheet format contained on the CD. Your electronic files should be accompanied by a letter that identifies the file software and version, file name(s), size(s), date(s), and time(s) of creation. Your electronic files should include any documents you relied on in preparing your responses.
- D. Submitting Maps. When submitting maps, identify the scale of the map, the map title and an explanation of what the map depicts. When identifying features on the map, either label the feature at its location on the map or include in the map’s legend the symbol used for identifying the feature.
- E. Submission of Documents. Label each document submitted with the request number and subpart (if applicable) to which it corresponds. Date stamp each document you submit. If anything is deleted from a document produced in response to this request, state the reason for and the subject matter of the deletion.
- F. Documents Responsive to More than One Request. If a document you submit is responsive to more than one request, please provide one copy of the document and identify all the requests, by number and subpart, to which it corresponds.
- G. Do Not Substitute Derivative or Summary Documents. Where a document is requested, please provide the responsive document. You may, if you wish, provide additional or explanatory documents to accompany the responsive document(s).

- H. Provide the Best Information Available. Unless otherwise specified, we are not requesting that you create new data or information. However, you should provide responses to the best of your ability, even if the information sought was never put down in writing or if the written documents are no longer available. You should seek responsive information from current and former employees and/or agents. If you cannot provide a precise answer to any questions, please approximate and state the reason for your inability to be specific.
- I. Unavailability of Records. If you are unable to respond to a request in a detailed and complete manner, or if you are unable to provide any of the information requested, indicate the reason for your inability to do so. If a record(s) responsive to a request is not in your possession, custody, or control and you have reason to believe that another person may be able to provide it, state the reasons for your belief and provide the person's name, address, telephone number, and any information available (i.e., author, date, or subject matter) about the record(s).
- J. Documents That Have Been Transferred. If any records responsive to a request have been transferred or otherwise disposed of, identify the document, identify the person to whom it was transferred, describe the circumstances surrounding such transfer or other disposition, and state the date or approximate date of such transfer or other disposition.
- K. Provide and/or Correct Information on a Continuing Basis. If any records responsive to a request are not known or are not available to you at the time you submitted your response, but later become known or available to you, you should submit the new information as a supplement to your response. If at any time after submission of your response you learn that any portion is or becomes false, incomplete, or misrepresents the facts, you should notify EPA of this fact as soon as possible and provide a corrected response. If any part of the response to this information request is found to be false, the signatory to the response and the company may be subject to criminal prosecution.
- L. Identify Personal Privacy Information. Personnel and medical files, and similar files, the disclosure of which to the general public may constitute an invasion of privacy, should be segregated from your responses, included on separate sheet(s), and marked as "Personal Privacy Information." You should note, however, that unless prohibited by law, EPA may disclose this information to the general public without further notice to you.
- M. Indicate Objections to Requests. While you may indicate that you object to certain requests contained in this information request, EPA requests that you provide responsive information notwithstanding those objections.
- N. Claims of Privilege. If you claim that an entire document responsive to this information request is a communication for which you assert that a privilege exists, identify the document and provide the basis for asserting the privilege. For any document for which you assert that a privilege exists for a portion of it, provide the portion of the document for which you are not asserting a privilege; identify the portion of the document for which you are asserting the privilege; and provide the basis for such an assertion. Please note that regardless of the assertion of any privilege, any facts contained in the document which are responsive to this information request should be disclosed in your response.
- O. Confidential Business Information. You should provide the information requested even though you consider it confidential information or trade secrets. You may assert a

business confidentiality claim for part or all of the information requested, as described below and set forth in 40 C.F.R. Part 2, Subpart B. Information covered by such a claim will be disclosed by EPA only to the extent and only by the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no confidentiality claim accompanies the information when EPA receives it, the information may be made available to the public by EPA without further notice to you.

If you wish EPA to treat any information or response as “confidential,” you must advise EPA and comply with the following procedures. Place on or attach to the information at the time it is submitted to EPA a cover sheet, stamped or typed legend, or other suitable form of notice employing such language as *trade secret*, *proprietary*, or *company confidential*. You must clearly identify allegedly confidential portions of otherwise non-confidential documents, and you may want to submit these separately to facilitate identification and handling by EPA. EPA will ask you to substantiate each claim of confidential business information by separate letter in accordance with applicable EPA regulations, 40 C.F.R. Part 2, Subpart B.

DEFINITIONS

Please use the following definitions for purposes of responding to the questions set forth below:

Except as otherwise defined below, terms in this information request have the same definition used in the CWA, 33 U.S.C. §§ 1251 through 1387, RCRA, 42 U.S.C. §§ 6901 through 6992k, and TSCA, 15 U.S.C. §§ 2601 through 2695d, and the regulations promulgated thereunder.

- A. The terms “and” and “or” shall be construed either disjunctively or conjunctively as necessary to bring within the scope of this information request any information which might otherwise be construed to be outside its scope.
- B. The term “any,” as in “any documents,” for example, shall mean “any and all.”
- C. The term “Company” shall mean the entity identified as the addressee on the cover letter to this information request and all related and affiliated corporate entities (including, but not limited to, parent corporations, subsidiaries, joint ventures, partnerships, and affiliates) that perform hydraulic fracturing services.
- D. The term “correspondence” or “communications” includes, but is not limited to, all oral, written, telephonic, facsimile, and electronic correspondence and/or communications.
- E. The term “describe” means to detail, depict, or give an account of the requested information, or to report the content of any oral and/or written correspondence, communication, or conversation, or to report the contents of any document, including the title, the author, the position or title of the author, the addressee, the position or title of the addressee, indicated or blind copies, date, subject matter, number of pages, attachment or appendices, and all persons to whom the document was distributed, shown, or explained.
- F. The terms “document” and “documents” shall mean any information subject to any method of recording, storage, or transmittal, and shall include any information now or formerly in your possession, custody or control, or now or formerly in the possession, custody or control of any agent acting on your behalf. “Document” shall include, but not be limited to:
 - 1. Writings of any kind, formal or informal, whether or not wholly or partially in handwriting, typed form, or printed form, including drafts, originals, and nonconforming copies that contain deletions, insertions, handwritten notes or comments, and including (by way of illustration and not by way of limitation) any of the following:
 - a. invoices, receipts, endorsements, checks, bank drafts, canceled checks, deposit slips, withdrawal slips, orders;
 - b. letters, correspondences, faxes, telegrams, telexes, electronic communications including, but not limited to, e-mails and other correspondence using computers or other electronic communication devices;

- c. minutes, memoranda of meetings and telephone and other conversations, telephone messages;
 - d. agreements, contracts, and the like;
 - e. log books, diaries, calendars, desk pads, journals;
 - f. bulletins, circulars, forms, pamphlets, statements;
 - g. reports, notice, analysis, notebook;
 - h. graphs, charts; or
 - i. records, pamphlets, surveys, manuals, statistical compilations, pictures.
- 2. Microfilm or other film record, photograph, or sound recording on any type of device.
- 3. Any tape, disc, or other type of memory generally associated with computers and data processing, together with:
 - a. the programming instructions and other written material necessary to use such disc, disc pack, tape, or other type of memory; and
 - b. printouts of such disc, disc pack, tape, or other type of memory.
- 4. Attachments to or enclosures with any document.
- G. The term “flowback” as used in this information request refers to the water mixture produced when the hydraulic fracturing procedure is completed and pressure is released, and the direction of fluid flow reverses. The well is “cleaned up” by allowing water and excess proppant to flow up through the wellbore to the surface. Both the process and the returned water are commonly referred to as “flowback” and the term is used in both ways herein.
- H. The term “identify” or “provide the identity of” means, with respect to a person to set forth: (a) the person’s full name, (b) present or last known business and home addresses and telephone numbers; (c) present or last known employer (including the full name and address), with job title, and position or business;
- I. The term “identify” or “provide the identity of” means, with respect to a corporation, partnership, business trust, government office or division, or other entity (including a sole proprietorship), to set forth: (a) its full name; (b) complete street address; (c) legal form (e.g. corporation, partnership); (d) the state under whose laws the entity was organized; and (e) a brief description of its business.
- J. The term “identify” or “provide the identity of” means, with respect to a document, to provide: (a) its customary business description (e.g., letter, invoice); (b) its date; (c) its number if any (e.g., invoice or purchase order number); (d) the identity of the author(s), the address, and the addressee(s) and/or recipient(s); (e) and a summary of the substance or the subject matter.
- K. The term “person” means an individual, trust, firm, joint stock company, corporation (including a government corporation), limited liability company, partnership, association, State, municipality, commission, political subdivision of a State, or an interstate body.

- L. The term “produced water” as used in this information request refers to the water mixture produced when the drilling and fracturing of the well are completed, and water is produced along with the natural gas. Some of this water is returned fracture fluid and some is natural formation water. These produced waters move back through the wellhead with the gas.
- M. The term “site” means a property where natural gas drilling and related activities occur, whether or not the property is owned or leased by the Company, including all areas within the exterior boundaries of that property. Multiple wells may be located at a single site.

QUESTIONS

Your response to the following questions is requested within thirty (30) days of receipt of this information request:

1. Provide the name of each hydraulic fracturing fluid formulation/mixture distributed or utilized by the Company within the past five years from the date of this letter. For each formulation/mixture, provide the following information for each constituent of such product. “Constituent” includes each and every component of the product, including chemical substances, pesticides, radioactive materials and any other components.
 - a. Chemical name (e.g., benzene – use IUPAC nomenclature);
 - b. Chemical formula (e.g., C₆H₆);
 - c. Chemical Abstract System number (e.g., 71-43-2);
 - d. Material Safety Data Sheet;
 - e. Concentration (e.g., ng/g or ng/L) of each constituent in each hydraulic fracturing fluid product. Indicate whether the concentration was calculated or determined analytically. This refers to the actual concentration injected during the fracturing process following mixing with source water, and the delivered concentration of the constituents to the site. Also indicate the analytical method which may be used to determine the concentration (e.g., SW-846 Method 8260, in-house SOP), and include the analytical preparation method (e.g., SW-846 Method 5035), where applicable;
 - f. Identify the persons who manufactured each product and constituent and the persons who sold them to the Company, including address and telephone numbers for any such persons;
 - g. Identify the purpose and use of each constituent in each hydraulic fracturing fluid product (e.g., solvent, gelling agent, carrier,);
 - h. For proppants, identify the proppant, whether or not it was resin coated, and the materials used in the resin coating;
 - i. For the water used, identify the quantity, quality and the specifications of water needed to meet site requirements, and the rationale for the requirements;

- j. Total quantities of each constituent used in hydraulic fracturing and the related quantity of water in which the chemicals were mixed to create the fracturing fluids to support calculated and/or measured composition and properties of the hydraulic fracturing fluids; and
 - k. Chemical and physical properties of all chemicals used, such as Henry's law coefficients, partitioning coefficients (e.g. K_{ow} , K_{OC} , K_d), aqueous solubility, degradation products and constants and others.
- 2. Provide all data and studies in the Company's possession relating to the human health and environmental impacts and effects of all products and constituents identified in Question 1.
- 3. For all hydraulic fracturing operations for natural gas extraction involving any of the products and constituents identified in the response to Question 1, describe the process including the following:
 - a. Please provide any policies, practices and procedures you employ, including any Standard Operating Procedures (SOPs) concerning hydraulic fracturing sites, for all operations including but not limited to: drilling in preparation for hydraulic fracturing including calculations or other indications for choice and composition of drilling fluids/muds; water quality characteristics needed to prepare fracturing fluid; relationships among depth, pressure, temperature, formation geology, geophysics and chemistry and fracturing fluid composition and projected volume; determination of estimated volumes of flowback and produced waters; procedures for managing flowback and produced waters; procedures to address unexpected circumstances such as loss of drilling fluid/mud, spills, leaks or any emergency conditions (e.g., blow outs), less than fully effective well completion; modeling and actual choice of fracturing conditions such as pressures, temperatures, and fracturing material choices; determination of exact concentration of constituents in hydraulic fracturing fluid formulations/mixtures; determination of dilution ratios for hydraulic fracturing fluids, and
 - b. Describe how fracturing fluid products and constituents are modified at a site during the fluid injection process.
- 4.
 - a. Identify all sites where, and all persons to whom, the Company:
 - i. provided hydraulic fracturing fluid services that involve the use of hydraulic fracturing fluids for the year prior to the date of this letter, and
 - ii. plans to provide hydraulic fracturing fluid services that involve the use of hydraulic fracturing fluids during one year after the date of this letter.
 - b. Describe the specific hydraulic fracturing fluid services provided or to be provided for each of the sites in Question 4.a.i. and ii., including the identity of any contractor that the Company has hired or will hire to provide any portion of such services.

For each site identified in response to Question 4, please provide all information specified in the enclosed electronic spreadsheet.