

APPENDIX 12

Hazardous Materials Summary

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PURPOSE

Ultra Resources, Inc. (Ultra), Shell Exploration & Production Company (Shell) and Questar Market Resources (Questar), hereinafter collectively referred to as "Proponents," propose this Hazardous Materials Plan to supplement the 2000 Record of Decision on the Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project, Sublette County, Wyoming (2000 PAPA ROD) as provided below.

The purpose of the Hazardous Materials Plan is to protect public and worker health and safety and support the Bureau of Land Management's (BLM's) inspection and enforcement capability.

SCOPE

This plan applies to construction, development and production practices within the Pinedale Anticline Project Area (PAPA) applicable to handling, storage and disposal of hazardous materials.

PROPONENTS' COMMITTED MEASURES

1. Each individual Proponent would be responsible for ensuring that all production, use, storage, transport and disposal of hazardous and extremely hazardous materials used or produced in their respective operations as a result of the proposed project would be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines.
2. Each individual Proponent would be responsible for communication and/or training for its employees, visitors on a site and requirements of subcontractor programs in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines.
3. Each individual Proponent would be responsible for maintaining chemical and hazardous materials records and distributing such records to appropriate entities in compliance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines.
4. A release of a hazardous substance, such as a leak or spill, in excess of the reportable quantity as established by 40 CFR Part 117.3, would be reported by each individual Proponent as required by the Comprehensive Environmental Response, Compensation, and Liability Act, Section 102 B.
5. If toxic substances are necessary, their usage would comply with provisions of the Toxic Substances Control Act of 1976, as amended (40 CFR Part 702-799).

6. Each individual Proponent would adhere to internal Hazard Waste Management policies and procedures.

HAZARDOUS MATERIALS MANAGEMENT SUMMARY

This Hazardous Materials Management Summary is provided pursuant to BLM instruction memoranda which require that all National Environmental Policy Act (NEPA) documents list and describe any hazardous and/or extremely hazardous materials that would be produced, used, stored, transported or disposed of as a result of a proposed project.

Materials are considered hazardous if they contain chemicals or substances listed in the Environmental Protection Agency's (EPA's) Consolidated List of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Extremely hazardous materials are those identified in the EPA's List of Extremely Hazardous Substances (*40 Code of Federal Regulations [CFR] 355*).

Proponents have reviewed the EPA's Consolidated List of Chemicals Subject to Reporting Under Title III of SARA (as amended) to identify any hazardous substances proposed for production, use, storage, transport or disposal by this project, as well as EPA's List of Extremely Hazardous Substances as defined in 40 CFR 355 (as amended) and have determined that various materials listed as hazardous and/or extremely hazardous would be used or generated by this project. All known hazardous and extremely hazardous materials potentially produced, used, stored, transported and/or disposed of as a result of the project are presented in the table below.

Materials anticipated to be used or produced during implementation of the proposed project generally can be included in the following categories: drilling materials, cementing and plugging materials, fracturing materials, production products, fuels, pipeline materials, emissions, compressor station/centralized processing, wellhead processing and storage facility materials and miscellaneous materials.

GENERIC LIST OF MATERIALS, HAZARDOUS MATERIALS AND HAZARDOUS AND EXTREMELY HAZARDOUS MATERIALS POTENTIALLY UTILIZED OR PRODUCED DURING CONSTRUCTION, DRILLING, PRODUCTION AND RECLAMATION OPERATIONS

All materials in the following list are dependent on quantity used for determination of hazardous and/or extremely hazardous status. The following materials, dependent on the amount used, are listed as potentially hazardous and extremely hazardous materials.

This is a generic list of materials that were contained in the March 2006 Record of Decision for the Jonah Infill Drilling Project Environmental Impact Statement and in the July 2000 Record of Decision for the Pinedale Anticline Oil and Gas Exploration and Development Project Sublette County, Wyoming Environmental Impact Statement. These materials may be used during operations but not always and not by each operator.

Materials	Hazardous Substances ¹	Extremely Hazardous Substances ²
Drilling Materials		
Anionic polyacrylamide		Acrylamide
Barite	Barium compounds Fine mineral fibers	
Bentonite	Fine mineral fibers	
Caustic soda	Sodium hydroxide	
Glutaraldehyde	Isopropyl alcohol	
Lime	Calcium hydroxide	
Mica	Fine mineral fibers	
Modified tannin	Ferrous sulfate Fine mineral fibers	
Phosphate esters	Methanol	
Polyacrylamides	Petroleum distillates	Acrylamide
Polyanionic cellulose	Fine mineral fibers	
Retarder	Fine mineral fibers	
Cementing and Plugging Materials		
Bentonite	Fine mineral fibers	
Anti-foamer	Glycol ethers	
Calcium chloride flake	Fine mineral fibers	
Cellophane flake	Fine mineral fibers	
Cements	Aluminum oxide Fine mineral fibers	
Chemical wash	Ammonium hydroxide Glycol ethers	
Diatomaceous earth	Fine mineral fibers	
Extenders	Aluminum oxide Fine mineral fibers	
Fluid loss additive	Fine mineral fibers Naphthalene	Acrylamide
Friction reducer	Fine mineral fibers Naphthalene PAHs POM	
Mud flash	Fine mineral fibers	
Retarder	Fine mineral fibers	
Salt	Fine mineral fibers	
Silica flour	Fine mineral fibers	
Fracturing Materials		
Biocides	Fine mineral fibers PAHs POM	
Breakers	Ammonium persulphate Ammonium sulphate Copper compounds Ethylene glycol Fine mineral fibers Glycol ethers	

Materials	Hazardous Substances ¹	Extremely Hazardous Substances ²
Clay stabilizer	Fine mineral fibers Glycol ethers Isopropyl alcohol Methanol PAHs POM	
Crosslinkers	Ammonium chloride Methanol Potassium hydroxide Zirconium nitrate Zirconium sulfate	
Foaming agent	Glycol ethers	
Gelling agent	Benzene Ethylbenzene Methyl tert-butyl ether Naphthalene PAHs POM Sodium hydroxide Toluene m-Xylene o-Xylene p-Xylene	
pH buffers	Acetic acid Benzoic acid Fumaric acid Hydrochloric acid Sodium hydroxide	
Sands	Fine mineral fibers	
Solvents	Glycol ethers	
Surfactants	Glycol ethers Isopropyl alcohol Methanol PAHs POM	
Production Products		
Liquid hydrocarbons	Benzene Ethyl benzene n-Hexane PAHs POM Toluene m-Xylene o-Xylene p-Xylene	
Natural gas	n-Hexane PAHs POM	

Materials	Hazardous Substances ¹	Extremely Hazardous Substances ²
Produced water/cuttings	Arsenic Barium Cadmium Chromium Lead Manganese Mercury Radium 226 Selenium Uranium Other radionuclides	
Fuels		
Diesel fuel	Benzene Cumene Ethylbenzene Methyl tert-butyl ether Naphthalene PAHs POM Toluene m-Xylene o-Xylene p-Xylene	
Gasoline	Benzene Cumene Cyclohexane Ethylbenzene n-Hexane Methyl tert-butyl ether Naphthalene PAHs POM Toluene m-Xylene o-Xylene p-Xylene	
Natural gas	n-Hexane PAHs POM	
Propane	Propylene	
Pipeline Materials		
Coating	Aluminum oxide	
Cupric sulfate solution	Cupric sulfate Sulfuric acid	
Diethanolamine	Diethanolamine	
LP Gas	Benzene n-Hexane Propylene	

Materials	Hazardous Substances ¹	Extremely Hazardous Substances ²
Molecular sieves	Aluminum oxide	
Pipeline primer	Naphthalene Toluene	
Potassium hydroxide solution	Potassium hydroxide	
Rubber resin coatings	Acetone Coal tar pitch Ethyl acetate Methyl ethyl ketone Toluene Xylene	
Emissions		
Gases	Formaldehyde	Nitrogen dioxide Ozone Sulfur dioxide Sulfur trioxide
Hydrocarbons	Benzene Ethylbenzene n-Hexane PAHs Toluene m-Xylene o-Xylene p-Xylene	
Particulate matter	Barium Cadmium Copper Fine mineral fibers Lead Manganese Nickel POM Zinc	
Coolants	Ethylene glycol	
Crude Oil	Benzene PAHs POM	
Grease	Zinc compounds	
Heat Transfer Fluid	Benzene	
Lubricants	1,2,4-trimethylbenzene Barium Cadmium Copper n-Hexane Lead Manganese Nickel PAHs POM Zinc	
Methanol	Methanol	

Materials	Hazardous Substances ¹	Extremely Hazardous Substances ²
Marking Paints	Hexane Naphthalene Toluene Xylene Acetone Cyclohexane	
Primers	Acetone Methanol Methyl Ethyl Ketone Naphthalene Toluene Xylene Zinc	
Plant Condensate	Benzene Ethyl benzene n-Hexane PAHs POM Toluene m-Xylene o-Xylene p-Xylene	
Silicone Seal	Silane	
Miscellaneous Materials		
Acids	Acetic anhydride Formic acid Sodium chromate Sulfuric acid	
Antifreeze, heat control, and dehydration agents	Acrolein Cupric sulfate Ethylene glycol Freon Phosphoric acid Potassium hydroxide Sodium hydroxide Triethylene glycol Polyethylene glycol	
Batteries	Cadmium Cadmium oxide Lead Nickel hydroxide Potassium hydroxide Sulfuric acid	
Biocides	Formaldehyde Isopropyl alcohol Methanol	
Cleaners	Hydrochloric acid	

Materials	Hazardous Substances ¹	Extremely Hazardous Substances ²
Corrosion inhibitors	4-4' methylene dianiline Acetic acid Ammonium bisulfite Basic zinc carbonate Diethylamine Dodecylbenzenesulfonic acid Ethylene glycol Isobutyl alcohol Isopropyl alcohol Methanol Naphthalene Sodium nitrite Toluene Xylene	
Emulsion breakers	Acetic acid Acetone Ammonium chloride Benzoic acid Isopropyl alcohol Methanol Naphthalene Toluene Xylene Zinc chloride	
Fertilizers	Unknown	
Herbicides	Unknown	
Lead-free thread compound	Copper Zinc	
Lubricants	1,2,4-trimethylbenzene Barium Cadmium Copper n-Hexane Lead Manganese Nickel PAHs POM Zinc	
Methanol	Methanol	
Motor oil	Zinc compounds	

Materials	Hazardous Substances ¹	Extremely Hazardous Substances ²
Paints	Aluminum Barium n-Butyl alcohol Cobalt Lead Manganese PAHs POM Sulfuric acid Toluene Triethylamine Xylene	
Paraffin control	Carbon disulfide Ethylbenzene Methanol Toluene Xylene	
Photoreceptors	Selenium	
Scale inhibitors	Acetic acid Ethylene diamine tetra Ethylene glycol Formaldehyde Hydrochloric acid Isopropyl alcohol Methanol Nitrilotriacetic acid	
Sealants	1,1,1-trichloroethane n-Hexane PAHs POM	
Solvents	1,1,1-trichloroethane Acetone t-Butyl alcohol Carbontetrachloride Isopropyl alcohol Methyl ethyl ketone Methanol PAHs POM Toluene Xylene	
Starting fluid	Ethyl ether	
Surfactants	Ethylene diamine Isopropyl alcohol Petroleum naphtha	
<p>¹ Hazardous substances are those constituents listed under the Consolidated List of Chemicals Subject to Reporting Under Title III of the <i>Superfund Amendments and Reauthorization Act of 1986 (SARA)</i>, as amended.</p> <p>² Extremely hazardous substances are those defined in 40 CFR 355.</p>		