APPLICATION FOR APPROVAL OF CONSTRUCTION
PIÑON RIDGE TAILINGS FACILITIES

Prepared By:

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ATTACHMENTS

1.0 INTRODUCTION

Energy Fuels Resources Corporation (Energy Fuels) is submitting this construction application to the U.S. Environmental Protection Agency (EPA) in compliance with 40 CFR Part 61, Subpart W for constructing and operating the first of three uranium/vanadium tailings disposal cells (Tailings Cell A), each encompassing approximately 30.5 acres. In accordance with 40 CFR Part 61.252(b)(1), the cells would be constructed in a phased manner with no more than two cells or impoundments in operation at any one time.

The tailings cells have also been designed to provide equivalent or enhanced protection of groundwater compared to the requirements outlined in 40 CFR 192.32(a) and equivalent regulations adopted by the Nuclear Regulatory Commission (NRC) and the State of Colorado. The Radiation Control Program of CDPHE is currently reviewing the tailings cell plans for compliance with these regulations. Because Colorado is an Agreement State with NRC, they are the responsible "regulatory agency" as defined under 40 CFR 192.31(g).

2.0 PHASED DISPOSAL

The Subpart W regulations currently require that tailings impoundments meet one of the two following work practices.

(1) Work Practice 1: Phased disposal in lined tailings impoundments that are no more than 40 acres in area and meet the requirements of 40 CFR 192.32(a) as determined by the Nuclear Regulatory Commission. The owner shall have no more than two impoundments, including existing impoundments, in operation at any one time.

(2) Work Practice 2: Continuous disposal of tailings such that tailings are dewatered and immediately disposed with no more than 10 acres uncovered at any one time and operated in accordance with 40 CFR 192.32(a) as determined by the Nuclear Regulatory Commission.

Energy Fuels elected to design in accordance with Work Practice 1 for phased disposal as it is more economical, less likely to result in liner damage, and provides better control of radon emissions by maintaining the tailings in a saturated state. Work Practice 2 for continuous disposal would necessitate operating practices similar to those employed at landfills with large equipment working within lined areas and unsaturated materials exposed to the elements. However, continuous disposal does provide for a quicker transition to cell closure. Although continuous disposal has been used successfully at some mining projects, the phased disposal method using standard tailings impoundments appears to be the best method for this site in terms of mill worker health and safety and protection of the environment.

3.0 PROJECT DETAILS

This section of the application addresses the information required in the construction application under 40 CFR 61.07. These informational requirements include applicant information, project location, technical design and operating information, and emission estimates. The project documents included with this application provide detailed

technical information on the various aspects of the project and should be considered part of the application.

The Piñon Ridge Mill Radioactive Material License Application with the CDPHE may also be referenced for additional information on the design, construction, operation, and closure of the mill and tailings facilities. The license application is available at: http://www.cdphe.state.co.us/hm/rad/rml/energyfuels/application/index.htm.

3.1 Applicant

The construction applicant is Energy Fuels Resources Corporation, a Colorado Corporation. Energy Fuels Resources Corporation is a wholly owned U.S. subsidiary of Energy Fuels Inc., a Canadian Corporation. Energy Fuels Resources Corporation's headquarters is located at 44 Union Boulevard, Suite 600, Lakewood, Colorado 80228.

3.2 Project Location

The proposed Piñon Ridge Mill is situated in Montrose County, Colorado on an 880-acre private parcel. The Property is located in Paradox Valley, approximately 12 miles west of Naturita and approximately 7 miles east of Bedrock, along the northeastern edge of Davis Mesa. The site address is 16910 Highway 90, Bedrock, Colorado 81411.

More specifically, the Property is situated in the southwest quarter of the southeast quarter of Section 5, all of Section 8, the north quarter of Section 17, and southeast quarter of the northwest quarter of Section 17 in Township 46 North, Range 17 West of the New Mexico Prime Meridian. Access to the Project site is via State Highway 90 to milepost 23. Refer to Figure 1, Site Location Map, for the general location of the Property, and Figure 2, Site Map, for the Property boundary.

Table 1 provides a legal description and geographical centroid coordinates for each of the tailings impoundments. At this time, Energy Fuels is requesting construction approval for Tailings Cell A (i.e., Tailings Impoundments A1 and A2) only.

Table 1
Tailings Impoundment and Evaporation Pond Locations

Feature	Legal Description (1)	Centroid Coordinates (2)	
Tailings Impoundment A1	Southeast Quarter	N 38° 14' 59"	W 108° 46' 00"
Tailings Impoundment A2	South Half	N 38° 14' 59"	W 108° 46' 10"
Tailings Impoundment B	South Half	N 38° 15' 08"	W 108° 46' 05"
Tailings Impoundment C	All Quarters	N 38° 15' 16"	W 108° 46' 05"

Notes:
(1) All locations are in Section 8 of Township 46 North, Range 17 West of the NMPM
(2) Geographical coordinates are in NAD83 datum

3.3 Technical Information

Technical information requirements for the Application for Approval of Construction are outlined in 40 CFR Subpart A 61.07(b)(3) and (c)(1), (2), and (3). They include: "describing the proposed nature, size, design, operating design capacity, and method of

operation of the source, including a description of any existing source." Each application shall also include: "(1) The precise nature of the proposed changes; (2) The productive capacity of the source before and after the changes are completed; and (3) Calculations of estimates of emissions before and after the changes are completed, in sufficient detail to permit assessment of the validity of the calculations.

The Piñon Ridge Mill is a new facility with only natural sources of radiation currently present on site. Soil radon flux levels for the site fluctuate during the year but average approximately 1.7 ρCi/m^2-s (ERG 2009). Although the application discusses phased tailings disposal over the 40-year projected mill life, this application is limited to constructing and operating Tailings Cell A (30.5 acres) at an average milling rate of 500 tons per day. This cell will have a capacity of approximately 2.45 million tons of tailings. As discussed in the "Uranium Mill Tailings Radon Flux Calculations" report by Golder Associates Inc. (see below), the radon flux from the tailings cell is estimated to range between 3 and 8 ρCi/m^2-s during normal operations.

The following documents, which are included with this Application for Approval of Construction, provide detailed operating, emissions, and design information, respectively, for the proposed tailings facility.

(1) Operating Plan, Tailings Cells and Evaporation Ponds, Piñon Ridge Mill by Energy Fuels: This plan provides a summary of the design components and a detailed review of operating and monitoring procedures for these facilities.

(2) Uranium Mill Tailings Radon Flux Calculations by Golder Associates Inc. (Golder): This report evaluates radon flux from the tailings cells over a variety of operating conditions. The results of this modeling effort were used to develop the Operating Plan.

(3) Tailings Cell Design Report, Piñon Ridge Project, Montrose County, Colorado by Golder: This report presents the design for the tailings cells.

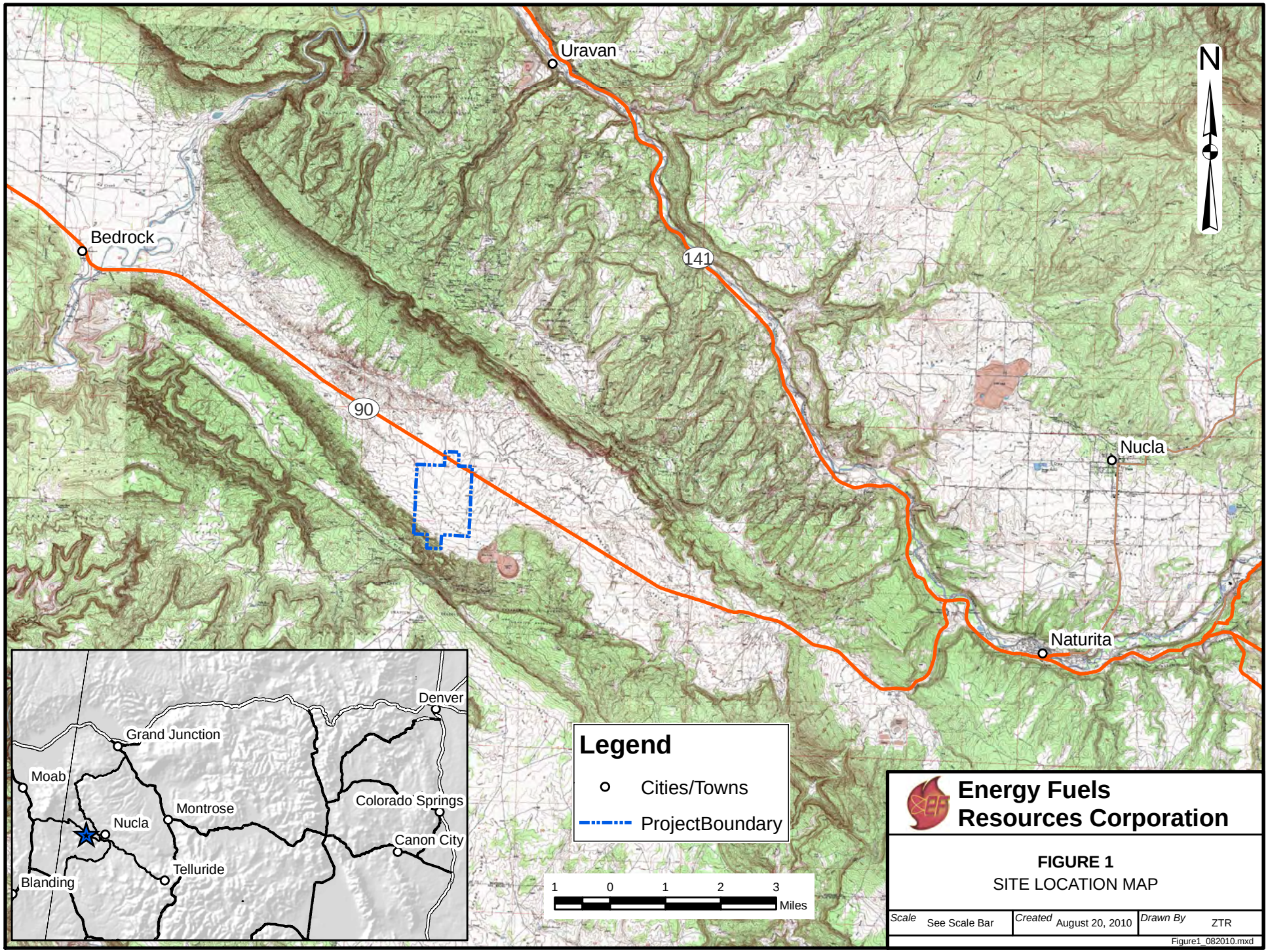
4.0 MONITORING AND REPORTING

Monitoring and reporting requirements are outlined under 40 CFR 61.09. In accordance with this regulation, Energy Fuels will provide notification of the anticipated date of initial startup of Tailings Cell A not more than 60 days nor less than 30 days prior to the anticipated date. Further, a notification of the actual date of initial startup for Tailings Cell A will be submitted within 15 days after that date. In accordance with 40 CFR 61.256, facilities designated under subpart W are exempt from the source reporting requirements listed in 40 CFR 61.10.

Radon flux monitoring is required only for existing sources as of the effective date (i.e., December 15, 1989) of the regulation under subpart W in accordance with 40 CFR 61.252(a). This monitoring is not required for new tailings impoundments as they are restricted in size by 40 CFR 61.252(b). The size limitations for new tailings impoundments were adopted to restrict potential radon emissions to levels that are considered to be protective of human health.

5.0 REFERENCES

Environmental Restoration Group, Inc (ERG) 2009. Baseline Radiological Investigation Report. Piñon Ridge Uranium Mill. Montrose County, Colorado. October 5. This report may be found in Volume 9 of the Radioactive Materials License Application on CDPHE's website.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Moab
Montrose
Colorado Springs
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Canon City
Telluride
Blanding
Legend
Cities/Towns
ProjectBoundary
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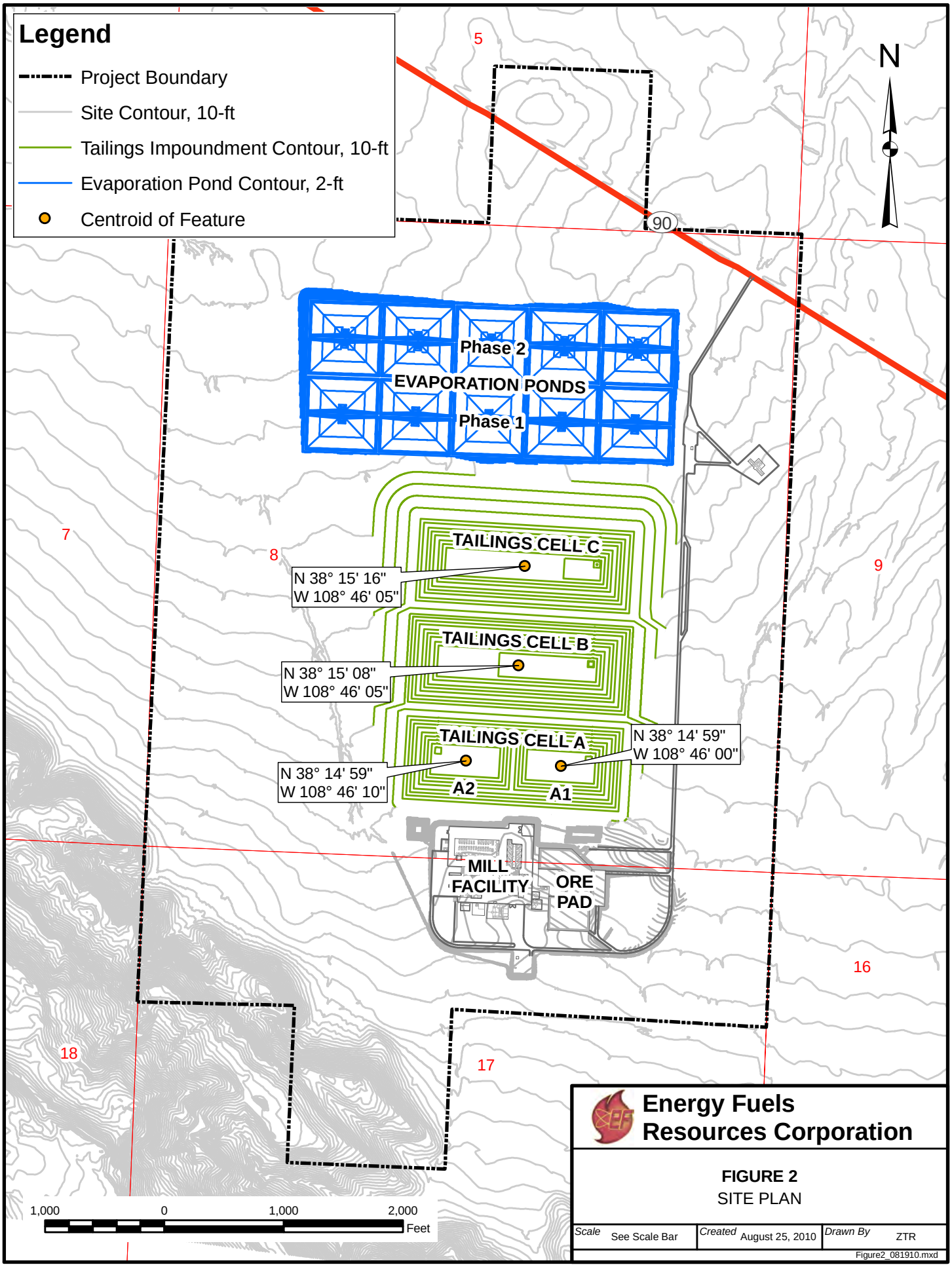
Energy Fuels Resources Corporation
FIGURE 1
SITE LOCATION MAP
Scale See Scale Bar
Created August 20, 2010
Drawn By ZTR
Figure1_082010.mxd



Energy Fuels Resources Corporation

FIGURE 2
SITE PLAN

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