

ENERGY METALS CORPORATION INSITU RECOVERY LICENSING

POWDER RIVER BASIN
AND GREAT DIVIDE
BASIN DEVELOPMENT
AREAS



ENERGYMETALS

CORPORATION US

IN SITU RECOVERY DEVELOPMENT AREAS

- POWDER RIVER BASIN
 - Moore Ranch Uranium Project
 - Peterson Ranch and 9-mile Lake are other projects for potential licensing in the near future.
- GREAT DIVIDE BASIN
 - Antelope and JAB Uranium Project
 - Licensing for Cyclone Basin, and other potential satellite units will follow

IN SITU RECOVERY DEVELOPMENT AREAS

- POWDER RIVER BASIN
 - Land Use is primarily livestock grazing and coalbed methane development.
 - Land ownership is largely private along with State of Wyoming ownership to a lesser extent.
 - Moore Ranch is remotely located while Peterson Ranch and 9-Mile Lake Projects are located closer to population areas.

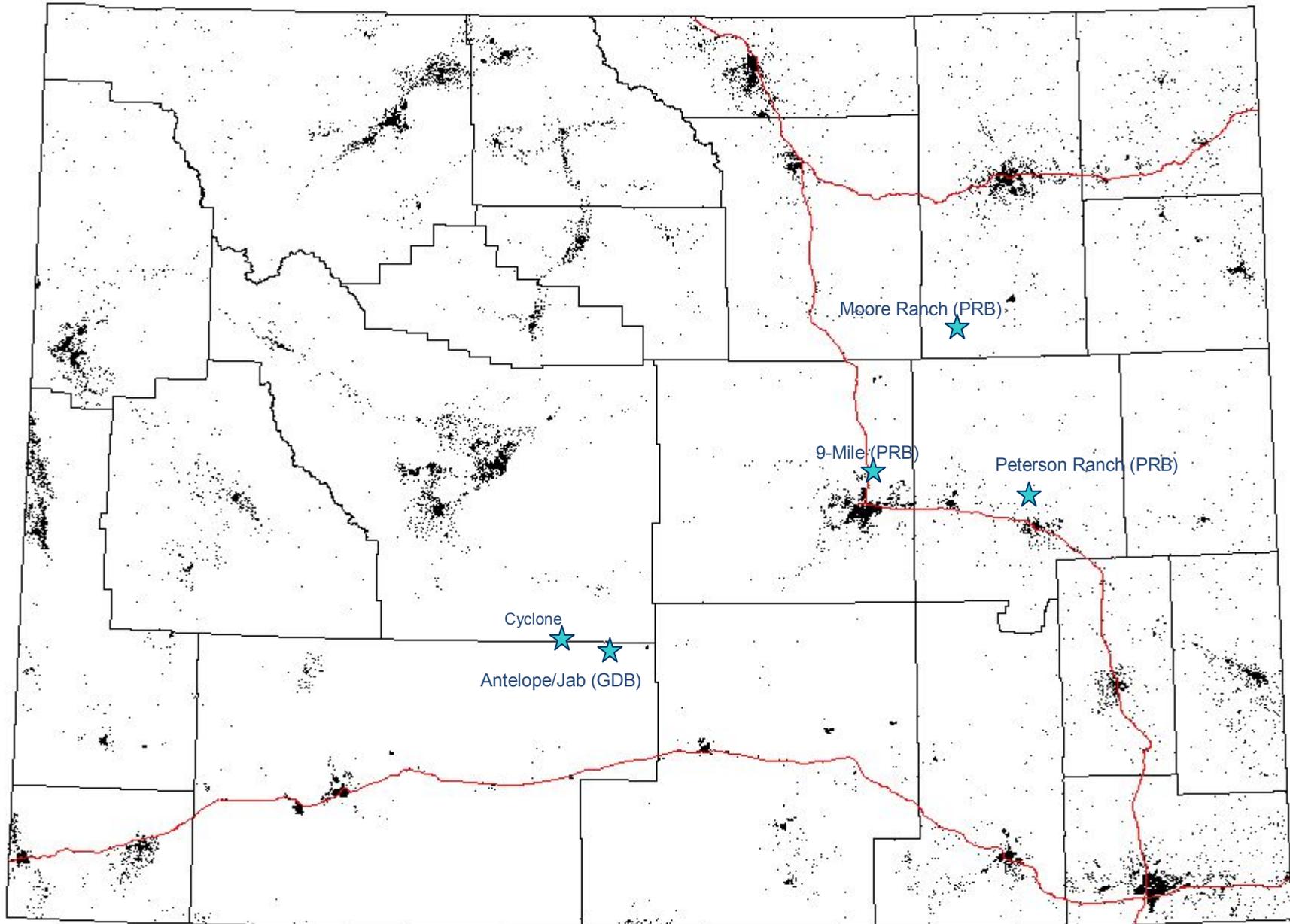
IN SITU RECOVERY DEVELOPMENT AREAS

- GREAT DIVIDE BASIN
 - Land Use is primarily wildlife and Livestock grazing, and oil and gas development.
 - Land ownership is mostly public administered by the BLM along with State of Wyoming ownership to a lesser extent.
 - Development area in the Great Divide Basin is extremely Remote (Bairoil (pop. 96) 10 miles east, Jeffrey City (pop. < 50) 18 miles north, Rawlins (pop. 8,700) 44 miles southeast).

Population Density Map for Wyoming: 2000

1 dot = 10 persons

Total population = 493,782



Prepared by Wyoming Department of A & I, Division of Economic Analysis

IN SITU RECOVERY DEVELOPMENT AREAS

- MOORE RANCH URANIUM PROJECT
 - Central Processing Plant for the Powder River Basin area will be located at the Moore Ranch Project.
 - Permit application was submitted with the WY-LQD and NRC License Application was submitted (draft EIS was developed) for open pit operations in the late 1970s.

IN SITU RECOVERY DEVELOPMENT AREAS

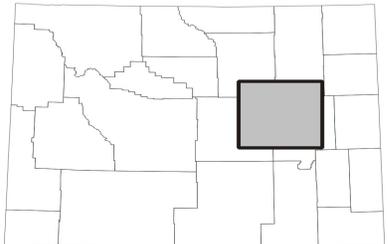
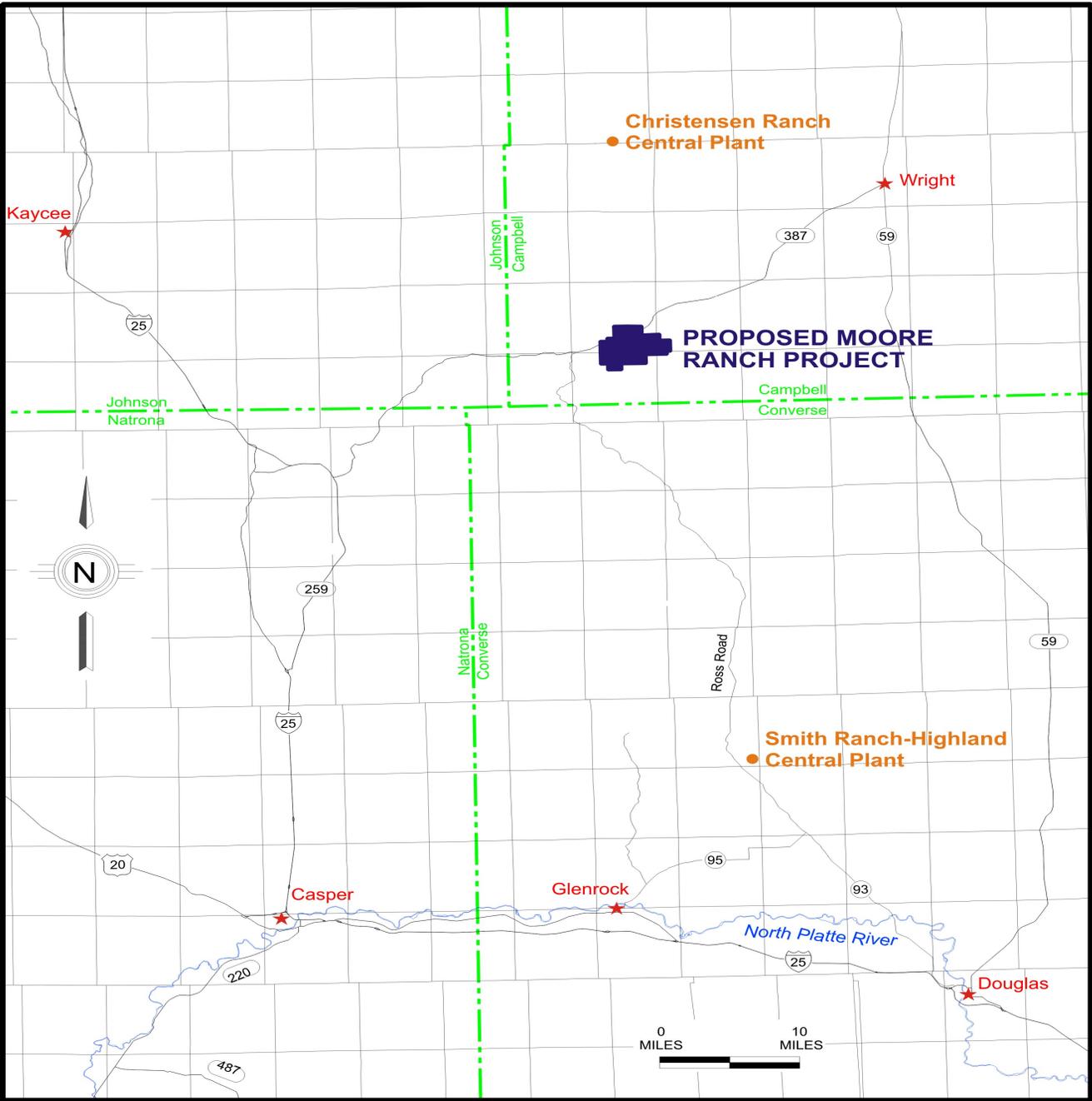
- Moore Ranch Uranium Project (Cont.)
 - Drilling permit is in place to begin exploratory drilling.
 - Contracts are in place and baseline environmental studies are underway. Current baseline data is available for some studies.
 - Initially targeted mining zone is approximately 250-350 feet. Previous geologic and hydrologic analysis show the aquifer is confined in the target areas.

IN SITU RECOVERY DEVELOPMENT AREAS

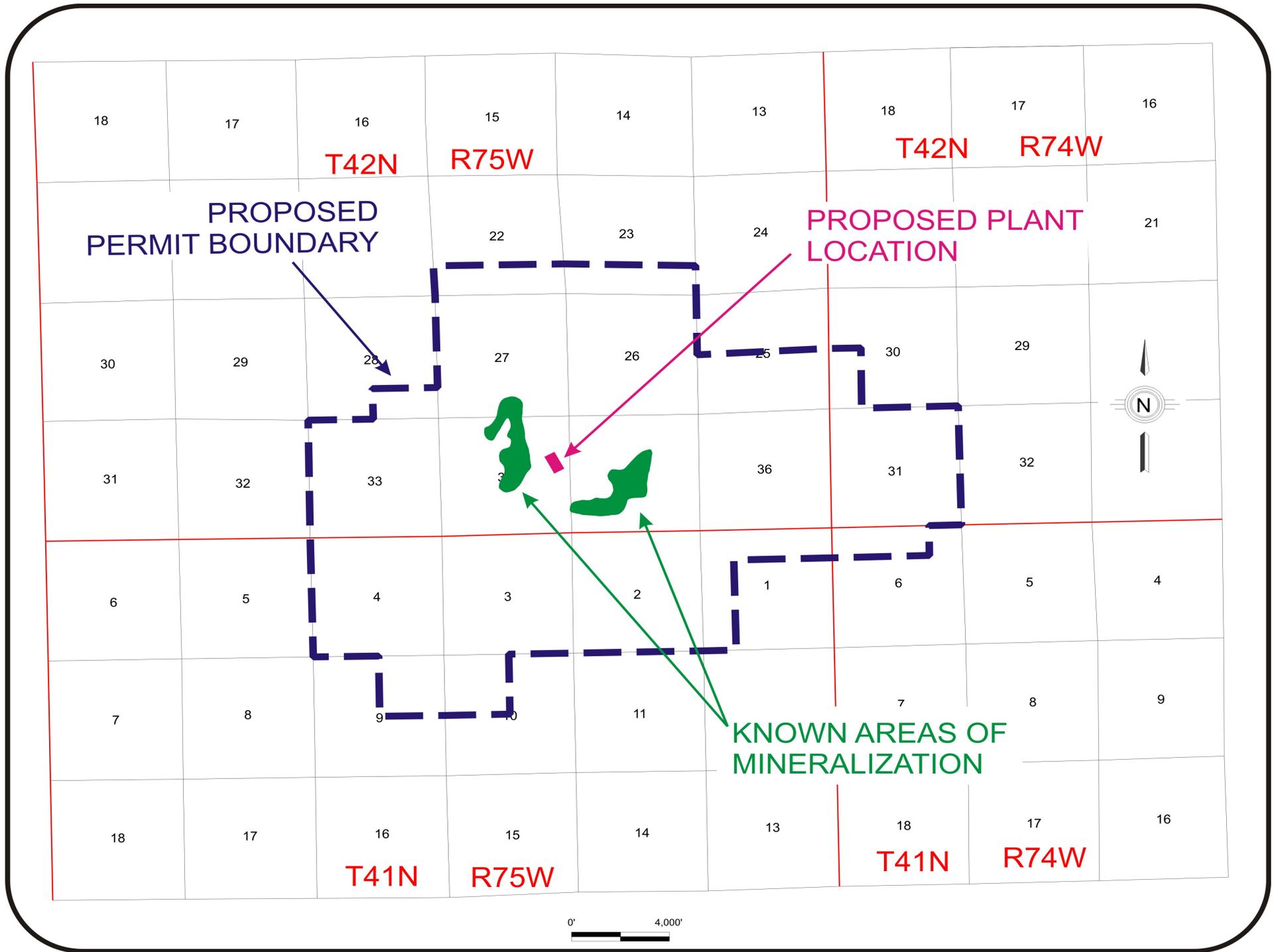
- Moore Ranch Uranium Project (Cont.)
 - Previous hydrologic analysis shows that no viable overlying aquifer exists.
 - Coalbed methane operations exist within the proposed permit area.

R82W R81W R80W R79W R78W R77W R76W R75W R74W R73W R72W R71W R70W

T46N
T45N
T44N
T43N
T42N
T41N
T40N
T39N
T38N
T37N
T36N
T35N
T34N
T33N
T32N
T31N



0 MILES 10 MILES



IN SITU RECOVERY DEVELOPMENT AREAS

- GREAT DIVIDE BASIN- ANTELOPE, JAB & CYCLONE PROJECTS
 - Initial project will include three to four separate claim areas. License boundaries are not contiguous.
 - Much of the mineralization is less than 500 feet from the surface. EMC is currently in the process of acquiring and evaluating existing geological and hydrologic data for these areas along with previous baseline environmental studies.

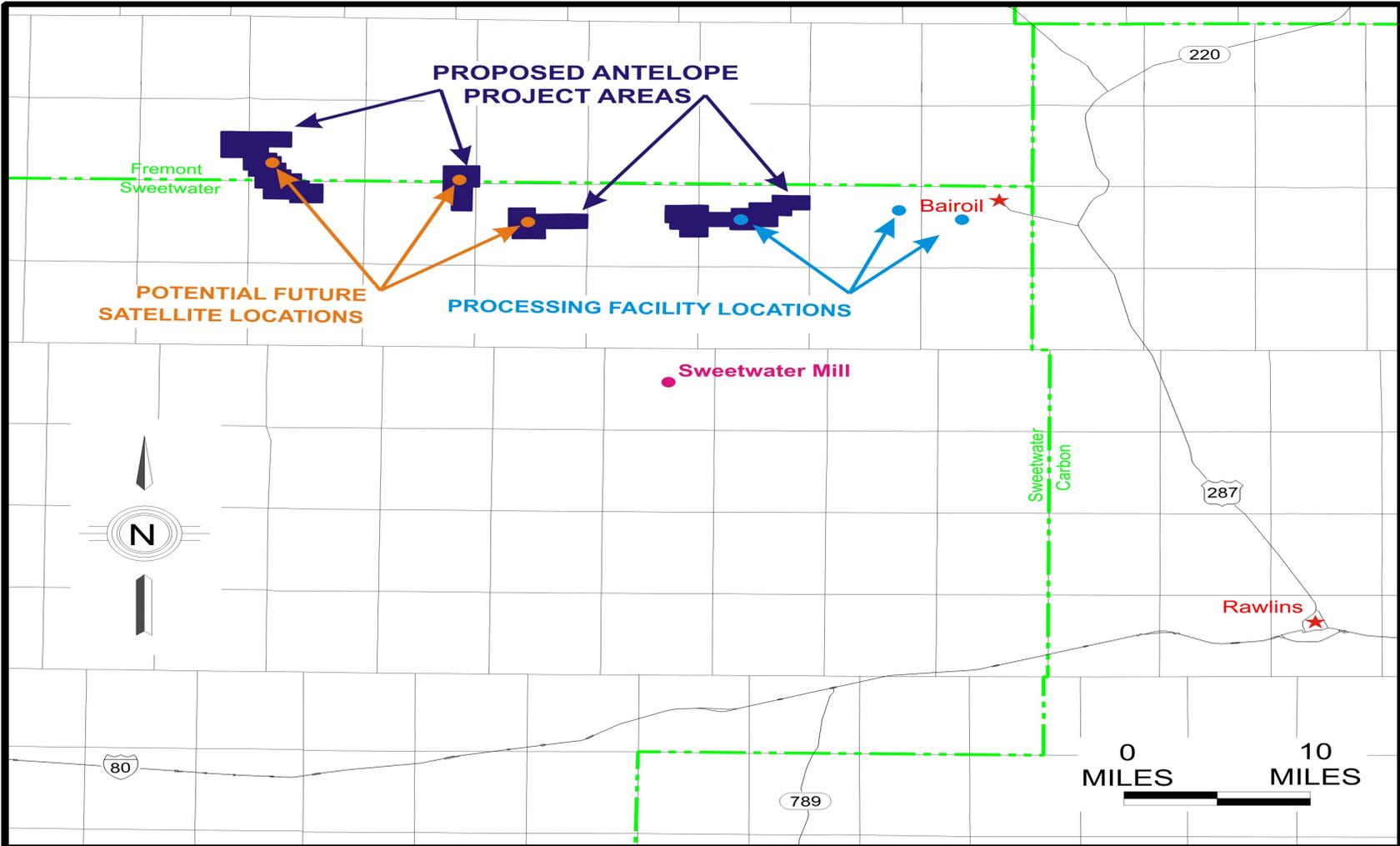
IN SITU RECOVERY DEVELOPMENT AREAS

- ANTELOPE/JAB/CYCLONE (Cont.)
 - Central Processing Plant is planned to be located at the Antelope Project Area, Section 16 of T26N R90W near the Bairoil site, or Section 11, T26N R91W. Production at the other areas will be accomplished with Satellite I/X facilities and resin will be trucked to the Central Processing Plant.
 - The Sweetwater Mill is located in the vicinity of the Antelope, JAB, and Cyclone Projects so potential toll milling options may be evaluated if the mill becomes operational.

IN SITU RECOVERY DEVELOPMENT AREAS

- ANTELOPE/JAB/CYCLONE (Cont.)
 - Baseline Environmental studies will begin as soon as possible. Baseline data exists for the JAB and Antelope Project areas from the early 1980s and will be evaluated for potential use with current studies.
 - Separate applications may be submitted for different License target areas. However operation plans will be largely identical.

T28N
T27N
T26N
T25N
T24N
T23N
T22N
T21N
T20N
T19N



R99W R98W R97W R96W R95W R94W R93W R92W R91W R90W R89W R88W R87W



BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- LAND USE
- DEMOGRAPHY/POPULATION/SOCIOECONOMICS
- CULTURAL RESOURCES
- CLIMATOLOGY
- GEOLOGY
- HYDROLOGY
- SOILS, VEGETATION, WETLANDS
- WILDLIFE
- SITE RADIOLOGICAL CONDITIONS AND MILDOS

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Data from local National Weather Service weather stations in the vicinity of the development areas will be utilized for baseline climatology and meteorological data summaries. Other weather stations in the area may also be used.
- Demographic estimates will be developed from information obtained from the US Census Bureau and State sources.

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Records searches will be performed to determine significant cultural resource areas within the permit areas and will be verified. Class III Cultural Resource Surveys will be performed in areas not previously assessed and where there will be potential disturbance from in situ activities.

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Geologic cross sections will be developed from existing logs or from new exploration drilling and will show an approximate east-west and north-south depiction of potential mining areas. Seismologic characterization will be completed by referencing documentation from the Wyoming State Geological Survey.

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Geologic conditions will be evaluated in relation to in situ recovery operational aspects, special operational planning, anomalous conditions, etc.

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Additional hydrologic confirmatory studies will be conducted along with collection regional baseline water quality and potentiometric surface mapping for geologic units from which we will be producing. Previous surface water hydrology analysis for the Moore Ranch exceeds what is required by State and NRC for baseline analysis and is adequate for inclusion in the license application.

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- EMC will evaluate any baseline hydrology that was conducted during previous development activities for the Antelope/JAB/Cyclone Project areas. EMC may enhance or validate existing hydrologic testing data; or new pump testing, water quality testing, and potentiometric surface evaluations may be needed in instances where previous data is inadequate or incomplete. Surface water evaluations will include premining water quality and descriptions of major drainages within the license areas as required by State and NRC guidance.

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Vegetation cover surveys and plant community mapping will be performed in accordance with WDEQ-LQD guidelines and approved plans.
- Soil surveys will be conducted in accordance with WDEQ-LQD guidelines and approved plans. Soil surveys may be less intensive in areas where no disturbance is planned.
- A declaration of jurisdictional wetlands will be obtained from the ACOE. Wetland mitigation or protection measures will be implemented as needed, if jurisdictional wetlands do exist within proposed license areas.

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Wildlife surveys will be conducted in accordance with WDEQ-LQD guidelines and consultation with Wyoming Fish and Game, US Fish and Wildlife Service, and BLM. Existing studies for wildlife species, threatened or endangered species, or any other species of special concern in and around the license areas will be utilized to the extent possible

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Baseline radiological surveys will be conducted to meet the requirements of NRC Regulatory Guide 4.14 and LQD guidelines.
- Continuous radon and gamma monitoring will be conducted at an upwind background site, a downwind site on the restricted area boundary, a downwind site at the permit boundary, and/or nearest downwind resident if applicable.

BASELINE ENVIRONMENTAL STUDIES AND SITE CHARACTERIZATION

- Continuous particulate monitoring will also be conducted at those locations depending on the availability of accessible power, site access, and limitations on battery/Solar powered samplers. Extremely remote sites may require periodic particulate monitoring rather than continuous monitoring as a result of these variables.

OPERATIONAL ASPECTS

- CENTRAL PROCESSING PLANTS
 - Designed for a production capacity of 2 million pounds per year.
 - Will utilize a vacuum dryer system.
 - Processes will be largely similar to ISR processing plants currently in production in Wyoming, Nebraska, and Texas.
 - Processes will be automated to the extent possible using the best available technology.

OPERATIONAL ASPECTS

- ION EXCHANGE SATELLITE FACILITIES
 - Designed for a flow through capacity of approximately 3000 gpm.
 - Processes will be largely similar to ISR ion exchange processing plants currently in production in Wyoming consisting of resin ion exchange circuit, wastewater circuit, and freshwater system.

OPERATIONAL ASPECTS

- ION EXCHANGE SATELLITE FACILITIES
 - Resin will be shipped from Satellites to the Central Plant for processing via truck
 - Processes will be automated to the extent possible using the best available technology.

OPERATIONAL ASPECTS

- Wastewater Disposal
 - Deep Disposal Wells will be used for water disposal.
 - Wastewater storage will be done through use of tanks. No evaporation or storage ponds are currently planned.

OPERATIONAL ASPECTS

- WELLFIELD OPERATIONS
 - Wellfields will be developed with typical 5-spot patterns with injection and production flow controlled via headerhouses.
 - Injection and production wells will be constructed in accordance with WDEQ-LQD regulations and mechanical integrity testing performed accordingly.
 - Monitor well frequency and spacing will be developed in accordance WDEQ-LQD regulations

OPERATIONAL ASPECTS

- OTHER POTENTIAL PROCESSING OPTIONS
 - Toll milling through existing mills in the Powder River Basin is under evaluation for applicable EMC operations.
 - Toll milling through the Sweetwater Mill in the Great Divide Basin may be evaluated if the mill becomes operational and can process resin.

APPLICATION SCHEDULE

- MOORE RANCH PROJECT (PRB)
 - License Application is planned for submittal to the NRC by the end of the third quarter of 2007. EMC is willing to submit a large portion of the application sooner to expedite review while select baseline monitoring activities are being completed.

APPLICATION SCHEDULE

- ANTELOPE, JAB, CYCLONE PROJECTS (GDB)
 - Application for the Antelope Project (and possible the JAB) is planned for submittal to the NRC by the end of 2007 or early 2008.