

CHAPTER 1: PURPOSE OF, AND NEED FOR THE ACTION

1.1 Introduction

Rock Well Petroleum, (US) Inc. (RWP) submitted an Application for Permit to Drill (APD) that was received by the BLM Casper Field Office (CFO) on April 7, 2006 in which RWP proposes to develop an underground-access oil recovery facility (UAORF) in the existing South Poison Spider Oil Field. This proposed action is located in portions of T. 33 N., R. 82 and 83 W., approximately 30 miles west of Casper, Wyoming (Figure 1-1). Access to the project is from Poison Spider Road, Natrona County Road 201 at Oil Camp Road.

A revised Surface Use Plan (SUP) and Drilling Prognosis for the APD and a Plan of Development (POD) for the Proposed Action was received by the CFO on August 28 and September 1, 2006, respectively.

RWP plans to produce federal oil reserves by an enhanced recovery technique utilizing underground-access gravity drainage (UAGD). This entails extracting crude oil by gravity drainage from production boreholes drilled upward at various angles from underground drilling stations. The underground drilling stations will be located in a shaft/tunnel system constructed below the oil reservoir. During production, the oil will flow downward via the natural forces of gravity and remaining reservoir pressure. Produced oil will be gathered from boreholes and pumped from the underground drilling/production stations through the tunnel to surface handling facilities.

The WYC037870 federal lease contains 560 acres. Within the lease boundary, the proposed action will involve approximately 17 acres of new surface disturbance and 31.37 acres of previous surface disturbance. Land and mineral ownership are 100% federal, managed by the Bureau of Land Management.

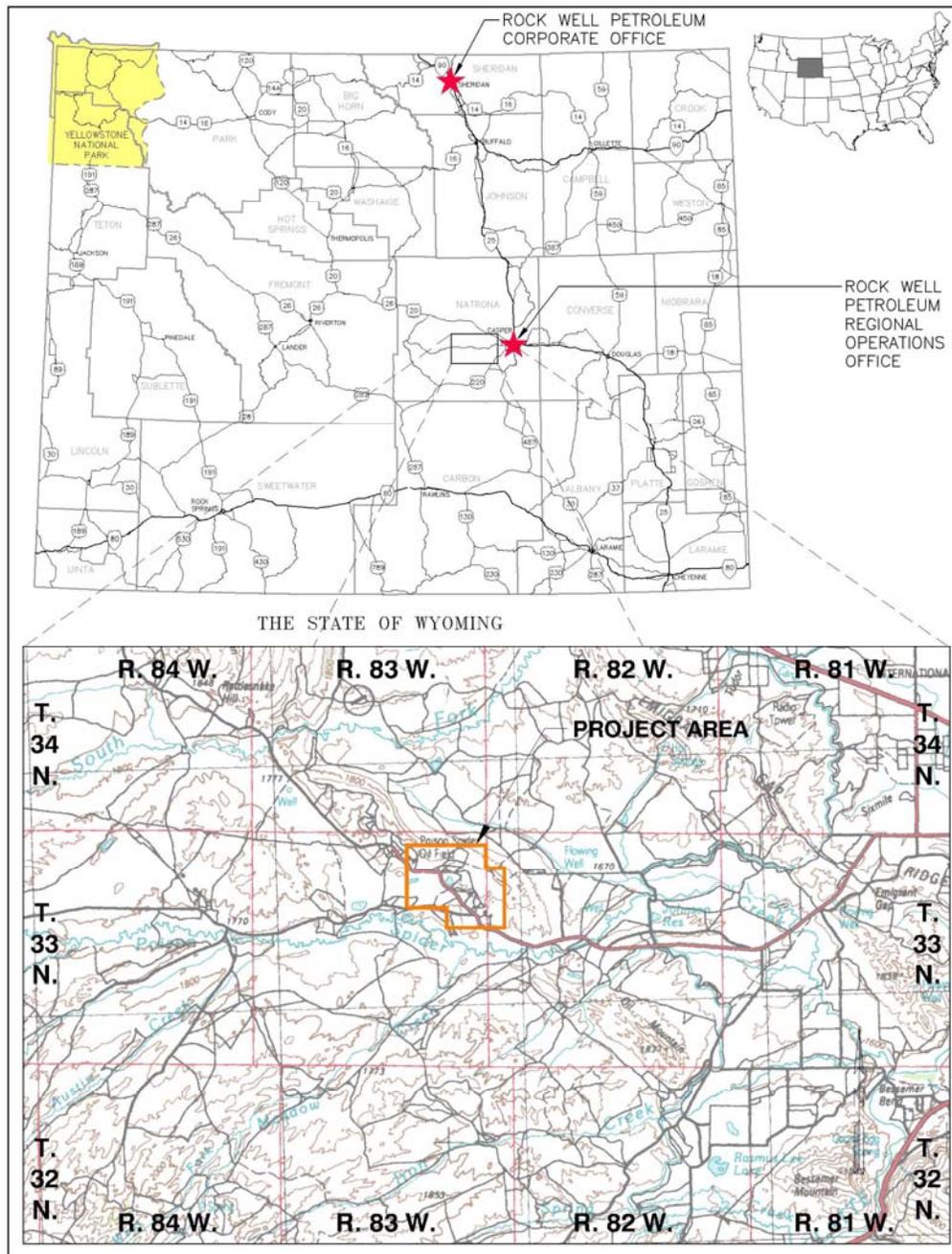
1.2 Project Description

RWP plans to produce the remaining reserves in place in the Poison Spider Field (PSF) using underground-access gravity drainage; this production technique will minimize surface disturbance while maximizing oil recovery. The entire underground access project area (service facilities, main shaft, access roads and ventilation shafts) consists of approximately 17 acres of new surface disturbance within the 560-acre lease. Upon implementation, the Proposed Action will be completed in approximately 3 years. Actual development time could be extended as new reservoir data is acquired or market conditions change. The productive life of the project is estimated to be 20 years. The PSF is 100% federally managed minerals and surface.

Figures 1-2 and 1-3 show the project area, the existing PSF and the proposed location of new surface facilities.

The Proposed Action includes continued operation of the existing PSF while developing the shaft and tunnel, drilling and completing underground wells, drilling and completing additional water injection wells, and constructing the service area which comprises a shop, office and production facility. Concurrent with the development of the underground project RWP will begin decommissioning unnecessary structures and reclaiming existing surface disturbance. Once the underground access project has achieved oil production rates at least comparable to the existing conventional operation the remaining surface production infrastructure will be

decommissioned and reclaimed. The proposed Reclamation Plan, found in Appendix A, provides a time line for decommissioning surface facilities.



Poison Spider Field General Location Map.

Figure 1-1 Project Location and Access

Development of the UAORF includes drilling a 1600 foot long vertical shaft to a location below the Sundance formation. A tunnel will then be excavated from the bottom of the shaft, proceeding in a northwesterly direction. Drill stations will be excavated along the tunnel alignment. Production boreholes will be drilled from the drill stations upward into the Sundance

formation, approximately 1400 feet below ground surface. RWP predicts it will take 12-18 months to complete the shaft and tunnel construction and up to 18 months to fully complete well development. The anticipated life of the project is approximately 20 years with final reclamation achieved five years (depending on weather) after plugging the wells, sealing the shaft, and removing all surface equipment.

Approval and implementation of the proposed UAGD project will result in the production of additional in-place oil reserves that otherwise would not be produced at this time and the reclamation of 31.37 acres of existing surface disturbance that otherwise would not be reclaimed at this time.

The original Poison Spider Plan of Development (POD) has been modified to meet natural resource requirements identified by BLM in its interdisciplinary review and field visits.

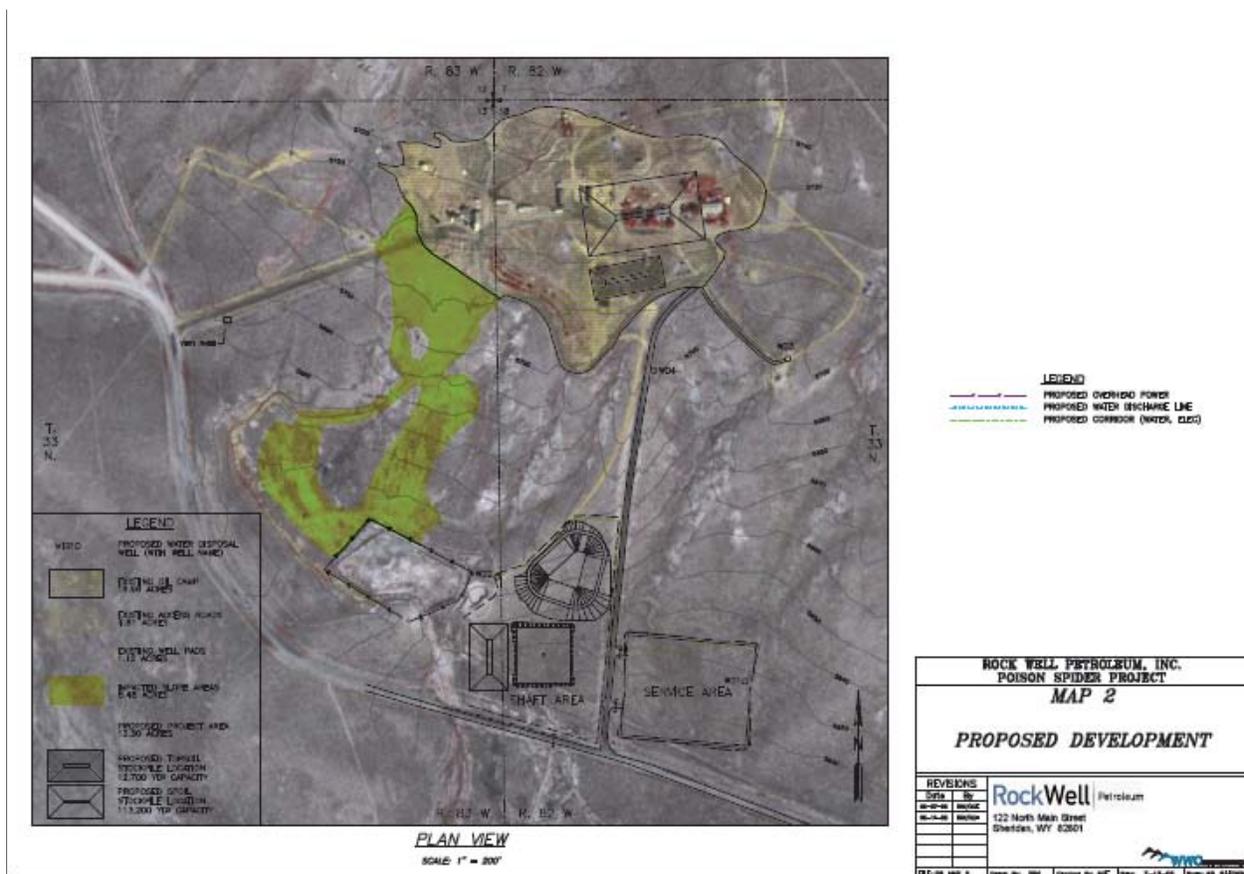


Figure 1-2 Aerial Photo of Current Operations and Proposed Shaft and Service Areas

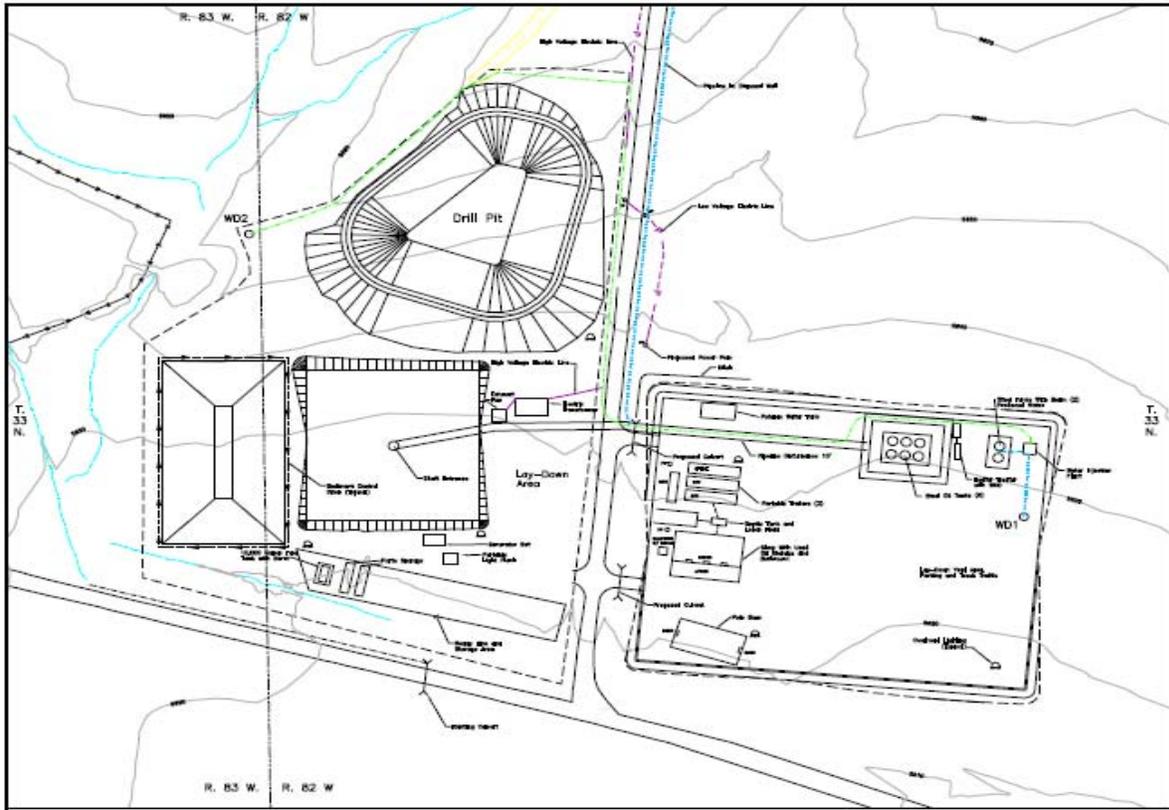


Figure 1-3 Shaft and Service Facilities Layout

1.3 Purpose and Need for the Proposed Action

The purpose of the proposed action is for RWP to develop the crude oil resource in federal mineral lease WYC037870. The BLM recognizes the statutory right of lease holders to develop federal mineral resources to meet continuing national energy needs and economic demands so long as undue and unnecessary environmental degradation is not incurred.

The Proposed Action is needed because the federal minerals produced would generate royalties which would otherwise be lost, and the operator would be deprived of their right to develop the federal minerals. This EA identifies and addresses the environmental consequences of the proposed action that are expected to occur if the project is completed as proposed.

1.4 Conformance with the Land Use Plans

The RWP proposal is in conformance with management objectives provided in the Platte River Resource Area Resource Management Plan Environmental Impact Statement and Record of Decision (RMP) (BLM 1985) and tiers to and incorporates by reference the information and analyses contained in the Platte River Resource Area (PRRA) Oil and Gas Environmental Assessment (EA) (1981). This project EA addresses site-specific resources and/or effects that are not covered in the PRRA Oil and Gas EA.

BLM planning for the project area is documented in the Platte River Resource Area Resource Management Plan (BLM 1984). The project is located in Resource Management Unit 14. Resource Management Plan (RMP) decisions applicable to the proposal are listed below.

- G1/G2: Grazing Management and Weed Control: The PSF is within an active BLM grazing allotment.
- L3: Corridors: Major rights-of-way will be confined to these designated corridors whenever possible. When placement of a major facility within a designated corridor is not possible, and for smaller right-of-way facilities, placement will be adjacent to existing facilities or disturbances. Cross-country right-of-way placement will be allowed only when placement in a designated corridor or adjacent to an existing facility is not practical or feasible. The proposed use of the existing roads on public land within the field is an example of implementing this planning prescription, and other proposed facilities on public land are parallel to, or make use of, existing linear facilities to the extent possible.
- M1: Oil and Gas: “BLM administered lands will remain open to oil and gas leasing and exploration.” This leasing decision is subject to “the provisions contained in referenced mitigation guidelines, developed to standardize the wording used by BLM in Wyoming.” The original lease for the project area, issued in 1942, contains no special lease stipulations.
- SWA 2: Surface Water Protection: For the protection of surface water, surface development will be prohibited in the following areas: within ¼ mile of the North Platte River; within 500 feet of live streams, lakes, reservoirs, and canals and associated riparian habitat; and within 500 feet of water wells, springs, or artesian and flowing wells. These restrictions, including the restriction on intermittent and ephemeral streams described below, may be waived in writing by the Authorized Officer if potential impacts can be acceptably mitigated. The ¼ mile limitation is not to be waived on the Trappers Route tracts, but it does not apply to recreation facilities. Surface development proposals that involve intermittent and ephemeral streams (as identified on USGS 7 1/2 minute topographic maps) will be evaluated, and site-specific mitigation will be applied as necessary, or the development will be moved a sufficient distance to ensure natural drainage integrity. This restriction applies to intermittent streams and well-defined ephemeral streams where watershed conditions indicate that the potential exists for the stream to carry sufficient quantities of water to result in damage to surface facilities or to dike channels.
- WL2/WL3: Antelope and Deer Habitat Management: Surface development in antelope and deer critical winter ranges is restricted from November 15 through April 30. No critical habitats for deer or antelope were identified in the project area.
- WL7: Raptors: Where surface disturbance proposals threaten the active nests of high federal or state interest raptor species, the PRRA will designate a suitable biologic buffer zone around the nests or nests where no surface development is permitted during the nesting season. Species identified jointly by the BLM, the US Fish and Wildlife Service, and the Wyoming Game and Fish Department as high interest are Golden Eagle, Red Tailed Hawk and Ferruginous Hawk. An active nest is defined as one that had been used at least once during the previous three years.

The proposed action is in conformance with BLM planning, and is consistent with local planning and zoning.

1.5 Relationship to Statutes, Regulations and Other Plans

1.5.1 NEPA Compliance

The proposed project has been analyzed in accordance with the requirements of the National Environmental Policy Act (NEPA), as amended. To comply with NEPA and the Council on Environmental Quality (CEQ) regulations, which implement NEPA, the BLM is required to prepare an environmental analysis. This environmental assessment (EA) serves several purposes.

- It provides the public and government agencies with information about the potential environmental consequences of the project and alternatives;
- It identifies all practicable means to avoid or minimize environmental harm from the project and alternatives;
- It provides the responsible official with information with which to make an informed decision regarding the project.

NEPA requires federal agencies to use a systematic, interdisciplinary approach to ensure the integrated use of natural and social sciences in planning and decision making. Factors considered during the environmental analysis process regarding the Poison Spider project include the following:

- A determination of whether the proposal and alternatives are in conformance with BLM policies, regulations, and approved resource management plan direction.
- A determination of whether the proposal and alternatives are in conformance with policies and regulations of other agencies likely associated with the project.

This EA is not a decision document. It documents the process used to analyze the potential impacts of the proposed action and alternatives and discloses the effects of the proposed action and alternatives to that action. A Decision Record (DR), signed by the BLM Authorized Officer will document the final decision regarding the selected alternative. The BLM will document whether or not significant impacts would occur with implementation of any of the alternatives. If the BLM determines that no significant impacts will occur, a Finding of No Significant Impact (FONSI) Decision Record will be issued. If significant impacts are identified, the BLM may require that an environmental impact statement (EIS) be prepared for the proposed action.

Authority for the proposed action and alternatives is contained in the Mineral Leasing Act (MLA), as amended, the Federal Land Policy Management Act (FLPMA), as amended, and federal regulations contained in 43 CFR 2800 and 3100. Other relevant guidance includes BLM Manual and Handbook sections in the 2800, 3160, and 9113 series.

This EA was prepared by a third party contractor under the direction of the BLM CFO.

1.6 Authorizing Actions

Some of the federal, state, county, and local actions required to implement the Poison Spider project are listed in Table 1-1.

Table 1-1 Federal, State, and County Authorizing Actions

Agency	Nature of Action
DEPARTMENT OF THE INTERIOR	
Bureau of Land Management, Casper Field Office	NEPA compliance Approval of APDs (shaft, drill stations, disposal wells) Approval of Sundry Notices
US Fish and Wildlife Service	Coordination, consultation, and impact review on federally listed or proposed for listing, threatened or endangered species of fish, wildlife, and plants.
DEPARTMENT OF LABOR	
Mine Safety and Health Administration	Mine inspection to ensure conformance with all laws, rules and regulations in regard to health and safety (30 CFR 57.22003)
ENVIRONMENTAL PROTECTION AGENCY	
	Spill Prevention Control and Countermeasures (SPCC) Plan. Regulate hazardous waste treatment, storage, and /or disposal.
NATRONA COUNTY	
Road and Bridge Department	Assure county roads are maintained as appropriate for service.
Local Emergency Response Office (LEPC)	Provide EPCRA (Community Right-to-Know) coordination and planning
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY	
Air Quality Division	New Source Review (NSR) Permit: all pollution emission sources, including compressor engines and portable diesel and gas generators. Require conformance with all ambient air quality standards.
Water Quality Division	National Pollution Discharge Elimination System (WYPDES) permit storm water runoff. Conformance with all surface water standards; Air Quality permit to construct and permit to operate. Administrative approval for discharge of hydrostatic test water.
Solid and Hazardous Waste Division	Require compliance with Resource Conservation and Recovery Act and CERCLA regulatory

	programs, and Wyoming Solid Waste regulations.
WYOMING DEPARTMENT OF TRANSPORTATION	
	Conformance with applicable size and weight limits for trucks.
WYOMING DIVISION OF MINE INSPECTIONS AND SAFETY	
	Mine inspection to ensure conformance with all laws, rules and regulations in regard to health and safety
WYOMING OIL AND GAS CONSERVATION COMMISSION	
	<p>Primary authority for drilling on state and privately held mineral resources and secondary authority for drilling on federal lands.</p> <p>Authority to allow or prohibit flaring or venting of gas on private or state owned minerals</p> <p>Permit produced water injection and disposal wells.</p> <p>Regulate disposal of drilling fluids from reserve pits.</p> <p>Directional drilling.</p> <p>Approve the Applications for Permit to Drill for the wells from each drilling station, the shaft and tunnel construction and to determine appropriate spacing for the recovery of the oil resource.</p> <p>Approve the Plan of Development (POD) boundary and well spacing for the project.</p> <p>Approve the Class II injection wells, drilled for the management of produced water.</p>
WYOMING STATE ENGINEER'S OFFICE	
	<p>Issue permits to appropriate groundwater and surface water.</p> <p>Issue temporary water rights for construction permits to appropriate surface water</p>
WYOMING STATE HISTORIC PRESERVATION OFFICE	
	Consultation concerning identification, evaluation, assessments effect and treatment of adverse effects on historic properties.
WYOMING STATE DIVISION OF MINE SAFETY AND INSPECTIONS	
	Provide regulatory oversight and standards for mining safety.

1.7 Scoping and Issues Identification

In accordance with NEPA and Council of Environmental Quality regulations, public scoping was not initiated on this project as it because it is entirely contained within a producing oil field and constitutes an enhanced oil recovery project. All project-related NOS/APD submittals are posted

for public review for 30 days. The EA and the FONSI/DR for the project will also be available for review in the CFO.

Internal BLM scoping led to the identification of the following issues and concerns associated with the proposed action:

- Project impacts to the surface water (Poison Spider Creek and Oil Camp Spring) and groundwater resources, specifically water quality and quantity.
- Impacts to wildlife and their habitats.
- Increased traffic and associated impacts on existing county roads.
- Emissions from shaft and tunnel construction, and production operations, and power generation equipment.
- Noise from the construction operation and operation of the tunnel vent.
- Reclamation of disturbed areas.
- Social and economic impact to local communities and landowners.
- Effects to cultural resources.