

MINING AND MINERALS BRANCH

Land Resources Division - WASO

Monthly Report - February 1994

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GENERAL

Branch Updates Statistics on Mineral Development in Parks - The current update of the mineral statistics for the System are attached to this monthly report. Mining claims data has been omitted because the number of unpatented claims in parks is in flux due to Congressionally required rental and filing fees. The Bureau of Land Management (BLM) implemented the fees via a final rule published in the Federal Register on July 15, 1993. As a result of the fees, a significant number of claimants have relinquished their unpatented claims. While BLM is still tallying numbers, preliminary data indicates that approximately 50% of the unpatented claims on public lands have been relinquished. We anticipate that the number of unpatented claims in parks will drop from 1344 to approximately 700. The number of patented claims remains at 711. The next update of the data base should include information on claims. If you identify errors in the data, please contact Vera Smith.

Proposed Revisions to the Non-Federal Oil and Gas Regulations Continue to Move Forward -

Based on extensive field review, the branch is in the process of revising NPS regulations governing non-Federal oil and gas operations in parks (36 C.F.R. Part 9, Subpart B) in order to improve the Service's ability to protect park resources from the adverse impacts associated with such development. The proposed revisions currently are under review by the Solicitor's Office. We hope to publish them in the Federal Register by early May and finalize them after 60-days of public review.

The existing regulations, among other things, exempt approximately 70% of the 570 non-Federal oil and gas operations in parks from regulatory control. In 1979 when the existing regulations were promulgated, a policy call was made on advice from the Solicitor's Office to exempt from regulatory control operations in existence as of the effective date of the regulations (i.e., January 1979) and operations that could be accessed without crossing Federal lands or waters. This has resulted in needless resource damage to park resources.

Once the proposed regulations are promulgated, all non-Federal oil and gas operations will have to be covered by an NPS approved plan of operations before any activity is allowed in a park. In addition, the proposed rule will eliminate the \$200,000 ceiling on the allowable performance bond amount. Instead, bonds will be set to reflect the full cost to the Federal Government to reclaim an area in case of operator default. The proposed rule also will allow the NPS to impose criminal penalties should an operator violate the requirements of the regulations and recover the administrative costs to review and monitor operations. (Bates)

Efforts Underway to Allow Parks to Keep Proposed Non-Federal Oil and Gas Fees - Proposed revisions to the Service's Part 9, Subpart B regulations include a requirement that non-Federal oil and gas operators pay the NPS for processing plans of operations and monitoring activity. As a result of comments received from the Regions on the draft proposed regulations, the branch is pursuing legislation that would allow parks to keep the fees in the park instead of sending them to the Treasury as would be required under current law. Park staff have expressed concern that time and funds would be diverted from other programs to administer the fees without any direct financial benefit to the park management or protection.

The proposed regulations would require non-Federal oil and gas operators to pay \$5,700 to the NPS for processing plans of operations; \$260 annually for monitoring; and \$3,600 for revisions to plans of operations, with some exceptions. The branch estimates that \$315,000 a year could be collected by parks under this regulatory proposal. NPS's authority to charge fees for these activities stems from the Independent Offices Appropriation Act of 1952. The branch has submitted a legislative proposal to the NPS WASO Legislative Division to enable parks to keep these funds. (Bates)

BIA Minerals Conference Sheds Little Light on Tribal Development Plans In and Near Parks - Branch staff attended the fluid minerals portion of the BIA's Fourth Annual National Indian Energy and Minerals Conference held on February 1-3, 1994, in Denver, Colorado. This conference provides useful information on potential mineral development on tribal lands in and adjacent to park units. Staff from the USGS Branch of Petroleum Geology presented three pertinent talks consisting of "Deep Gas Potential on Tribal Lands," "Oil and Unconventional Resources on Tribal Lands," and "Natural Gas Potential on Tribal Lands." Reported oil reserve potential on tribal lands focused on lands held by Native Corporations in Alaska. In the lower 48 states, the Blackfoot Reservation east of Glacier was the only tribal land near a park viewed as having development potential at this time. Coal bed methane appears to comprise much of the natural gas reserves in the lower 48 states. Unconventional reserves (e.g., oil shale, tar sands, and heavy oil) were shown in the Alaska interior and the Green River Basin. Because the costs to develop unconventional reserves are so high, the USGS stated that development is not realistic at this time. (Heise, Boucher)

Memorandum on NEPA Compliance for AML Closure Projects Sent to All Regions - Several unit managers requested good examples of compliance documents on abandoned mineral land (AML) projects to use as a template. In response, the branch sent each region copies of an Environmental Assessment (EA) prepared by the Southwest Regional Office and Big Bend for closure of openings at the abandoned Mariscal Mercury Mine. The distributed EA is the best example we are aware of for AML closure and reclamation work. Copies are available from the branch. (Burghardt, Woods)

Experimental Mine Closure Technique May Prove Beneficial to Parks - The branch has arranged for a test application of a mine closure technique that uses a polyurethane foam that can be applied without use of auxiliary equipment. Because of its light weight and ease of application, the foam may be well suited to close abandoned mine openings that are difficult to access in parks. To date, the Service has used foam to close abandoned mine openings in parks (e.g., Colorado NM, New River Gorge NR), but closure have involved use of heavy equipment. The experimental foam comes in a plastic bag within a plastic bag. The foam is generated by breaking the inner plastic bag which starts a chemical reaction that produces the foam. Advantages of the product are: it's portability, shrink resistance, strength, tolerance of cold, vandal resistance, and cost competitiveness with other methods. A field test in Colorado to close a shaft and an adit is scheduled for this spring. If the test is successful, the company has offered to do a demonstration at a NPS abandoned mine site. (Cloues)

Industry Initiatives for Cooperative Ventures to Mitigate Abandoned Mines Look Promising -

Branch staff have been working with the Colorado Center for Environmental Management (CCEM) to use them as a "broker" for the NPS and the mining industry to generate cooperative abandoned mine clean-up projects. So far a Nevada-based mining company has expressed interest in putting together a cooperative project in a park unit located in Nevada. The branch is reviewing the Abandoned Mines Inventory and other existing data at Great Basin NP, Lake Mead NRA and Death Valley NM to identify promising sites in an area known as the Nevada triangle. If an industry-funded project is successfully put together in Nevada, it should serve as a positive example of what can be achieved in other park units through cooperative Government and industry efforts. (Higgins)

Branch Updates NPS Oil and Gas Activity Report - In support of efforts to revise the Service's 9B regulations, the branch updated the report "Regulating Non-Federal Oil and Gas Activity in the National Park System - A Pictorial Summary." The report now reflects the most current information available. Inquiries should be directed to Kean Boucher.

ALASKA REGION

EPA's Proposed General NPDES Permit for Placer Mining in Alaska Concerns Branch - The branch submitted comments to the region on EPA's proposed rule outlining its intent to streamline National Pollutant Discharge Elimination System (NPDES) permitting in Alaska. EPA plans to cover multiple placer mining operators under the same 5-year "general" permit. Our comments stressed concern that the proposed general NPDES permit will not provide adequate "quality assurance or quality control" for operator compliance with discharge requirements. The general NPDES permit relies heavily on operator cooperation for water quality monitoring, testing, and reporting. In particular, the EPA's proposed rule would require operators covered under the general NPDES permit to report their own violations by the November **following** the field season. This practice may render the general permit ineffective and poses a risk to surface water quality in parks. (Moss)

Inspection Report Completed for Kennecott Mine in Wrangell-St. Elias - Working with the park and Alaska Regional Office staff, last summer branch staff inspected 29 mine openings at five individual mine sites at the Kennecott mine complex. The site investigation was designed to gather information on the cultural features, safety hazards and underground openings, and to recommend mitigation measures. The team also inspected the Jumbo tram features that go from the mine to the mill. The features included the loadout station, towers, breakover stations, and junction station. Observations focused on cable condition, structural integrity, safety problems, and physical aspects of the features. This inspection report will be integrated into a broader report for Government use in approaching the Kennecott Corporation in regarding possible land acquisition. The company will be responsible for minimizing safety concerns prior to transfer. (Cloues, Wood)

US Forest Service Requests Assistance With a Land Exchange at Admiralty Island - At the request of the Forest Service Director of Lands, the branch mineral economist commented on an exchange proposal involving 7,500 acres of mineral rights at the monument which abut an ongoing mineral operation. The complex proposal involves royalty payments to the Federal Government. Experience gained from the Department of the Interior's task force on mining royalties **"Economic Implications of A Royalty System for Hardrock Minerals"** is helping to establish an appropriate market value. In addition, consistency between federal agencies will help the NPS in future transactions. (Cloues)

MID-ATLANTIC REGION

Mineral Issues Evaluated in Gauley River, Bluestone, and New River Gorge Draft RMP - Branch staff commented on minerals-related issues addressed in the Draft Resource Management Plan (DRMP) for Gauley River, Bluestone, and New River Gorge. Our comments commended the authors for specifically discussing the numerous minerals issues in the three park units. We suggested strengthening the DRMP by expanding the discussions on the collection of minerals and fossils, liability associated with acquiring acreage encumbered with abandoned mines or wells, abandoned mine land safety issues, and the regulation of new and active oil and gas operations. (Heise, Cloues)

MIDWEST REGION

Branch Assists Indiana Dunes Mineral Appraisal - The regional lands office is considering acquiring two parcels of land totalling 36.56 acres and containing sand dunes which could serve as a mineral material source. The branch is providing assistance with the terms of the mineral appraisal contract and review of the contract proposals submitted by the various appraisal companies. The NPS hopes to obtain a high quality appraisal at a competitive price while conforming to the 1992 Uniform Appraisal Standards for Federal Land Acquisitions. An estimate of fair market value of the mineral in the ground based on quality, quantity, recoverability, market factors, and legal restrictions will be incorporated with the surface value by the land appraiser to obtain an overall fair market value for the properties. (Cloues)

Branch Researches Potential Mineral Development Along Missouri National Recreation River - The Denver Service Center's (DSC) Central Team requested branch assistance in researching past, active, and potential mineral development near the Missouri National Recreation River. DSC requested the information for park planning purposes. Branch staff researched available information at the USGS library in Denver, Colorado, and determined: (1) no hardrock, coal, or fluid mineral development is occurring near the Missouri River, (2) numerous sand, gravel, and clay extraction sites exist all along the river terraces, and (3) sand, gravel and clay development will likely continue in the area. The branch submitted this information to DSC and also provided a list of potential resource impacts associated with mineral material extraction. (Heise)

NATIONAL CAPITAL REGION

Clean Water Act §319 Grant Secured for Abandoned Mine Mitigation - The Virginia Department of Mines, Minerals and Energy has been granted \$75,000 from the Environmental Protection Agency (EPA) for the reclamation of the Cabin Branch Mine at Prince William Forest Park, Virginia. The state will meet with park and regional staff members in March to begin planning the reclamation. The state tentatively plans to initiate construction in August or September 1994. (Smith)

PACIFIC NORTHWEST REGION

Mineral Study Needed to Acquire a 3.25 Acre Tract in Olympic - The region has requested branch assistance on an NPS proposal to add a 3.25 parcel of land at Cape Johnson, Washington to the park. The land once belonged to the Coast Guard and was set aside for a proposed lighthouse. The Coast Guard never built the lighthouse and relinquished the land to the Bureau of Land Management (BLM) in the 1960s. The land was withdrawn from mineral entry and has remained closed. The BLM performed a land examination in the 1960s. The NPS must send the BLM a petition to put them on

notice that the NPS wishes to acquire the parcel. As part of that effort the NPS must perform a mineral survey and prepare a mineral report. The study will consist of a literature research and an onsite inspection. However, before the land can be added to the park, the NPS must obtain Congressional approval. (Covington)

ROCKY MOUNTAIN REGION

Wyoming National Guard May Help Reclaim Abandoned Mine Sites at Yellowstone - Branch staff contacted Colonel S. Humberson about assisting reclaim abandoned mine lands at the park as a guard training exercise. Colonel Humberson's reaction was favorable but he requested a project list first. Rocky Mountain Region provided information outlining 56 separate projects and a description of typical reclamation activities. After reviewing the information, guard personnel affirmed their interest in developing a cooperative relationship with Yellowstone. Guard members would like to visit the sites first-hand and then make a final decision on accepting projects. Onsite visits will be scheduled for late spring. If the National Guard accepts any of these potential projects, it would provide the Service with many thousands of dollars of free reclamation work. (Steensen)

Branch Helps Yellowstone Assess Impacts of Reclaiming Gravel Pits - Branch staff provided technical comments on the environmental assessment (EA) covering proposed reclamation of three administrative sand and gravel pits in the park. Over the last two years park staff have worked closely with the branch, the Abandoned Mine Land Division of the Wyoming Department of Environmental Quality, and Nelson Engineering, Inc., the state's engineering consultant, to develop alternative reclamation proposals for each pit. This partnership has led to a thorough examination of engineering alternatives prior to preparing the EA. The branch found the EA exemplary, particularly in terms of its evaluation of all impact issues and alternative reclamation actions. The branch identified one major outstanding issue with the preferred action: proposed use of old and weathered asphalt road base as fill material at the Dry Creek Gravel Pit. Although the pit is apparently above the groundwater table and the percent of volatiles in the asphalt is characterized as "low and not hazardous," hydrocarbon compounds could potentially leach through the soil and adversely impact groundwater quality and perhaps geothermal features. Available literature reveals that weathered asphalt can release long-chain hydrocarbons, and such compounds can be more toxic than light-fraction volatiles. We suggested that park staff contact the Water Resources Division to discuss this issue further. The branch also cautioned the park on the application of fertilizer to stimulate vegetation growth at the reclaimed pits. Recent literature suggests that application of too much fertilizer during revegetation of abandoned mine sites can preclude the establishment of climax vegetation. (Geniac, Steensen)

Engineering Alternatives Offered for the Proposed New World Mine Outside Yellowstone - Branch staff researched and submitted another engineering alternative to the cooperating agency team for consideration and analysis in the environmental impact statement (EIS) on the proposed New World Mine located 2 miles northeast of Yellowstone. The alternative presented involves the horizontal "layering in" of an expanded polymer based "mining grid" to the mine tailings impoundment during the construction phase. The final result of this type of construction is a reinforced or strapped impoundment embankment with several layers of polymer grid that will resist mass movement resulting from excessive soil saturation or natural forces, such as landslide, avalanche, or seismic activity. The branch suggested that the EIS thoroughly evaluate the use of such material because catastrophic impoundment failure near Yellowstone is of major concern to the NPS. (Moss, Cloues)

BLM Land Management Plan Affords Protection to the Resources of Devils Tower - Branch staff reviewed the Draft Resource Management Plan and Environmental Impact Statement (RMP/EIS) for the BLM Newcastle Resource Area near Devils Tower National Monument (DETO) and determined that local cooperation between the park and BLM personnel pays off. The RMP/EIS proposes to designate about 3400 acres surrounding DETO as a Class I visual resource management (VRM) area. The VRM area boundary extends from at least 1 mile to over 4 miles from the unit boundary. The management goal in a Class I VRM area is to maintain a landscape setting that appears unaltered by man. Under Wyoming BLM "Standard Mitigation Guidelines," the Class I VRM designation prohibits surface disturbance. Branch comments to the region and park noted that the Class I VRM designation, when applied to minerals development on Federal land managed by the BLM, has the same effect as a "no surface occupancy" (NSO) stipulation. However, the VRM designation does not afford as much resource protection as an NSO stipulation because BLM can waive the VRM mitigation requirements with less environmental review and without public comment. Because the potential for mining, minerals materials extraction, and oil/gas activity near DETO is low, the branch concluded that the Class I VRM designation is appropriate for protecting park resources. However, continued interagency cooperation remains the basic ingredient for future protection of unit resources from external mineral development. (O'Dell)

Natural Bridges Faces Reopening of an Adjacent Uranium Mine - The Superintendent of the park contacted the branch to seek assistance following notification of a proposal filed with the BLM San Juan Resource Area, Utah, to reopen uranium mines near the park. The most recent uranium mining operations on lands adjacent to the park occurred in the 1950s and 1960s and left mine tailings piles on hillsides visible from the park. The new operator is seeking BLM approval to reenter the old mines to extract any remaining uranium. Potential impacts to the park include increased visual intrusion, mining-related traffic and fugitive dust, and degradation of groundwater quality. The branch provided the Superintendent with an explanation of the applicable BLM regulatory requirements, limitations of such regulations, mine approval process, and means by which the NPS can effectively present resource protection and impact mitigation issues to the BLM. (Ziegenbein)

SOUTHEAST REGION

Cumberland Gap Deals With Adjacent Surface Coal Mining Threat - Park staff advised the branch that the Office of Surface Mining Reclamation and Enforcement (OSM) recently received a permit to mine coal adjacent to the park along with a petition to deem those lands unsuitable for coal mining. On Friday, February 11, 1994, Apollo Fuels, Inc. applied to OSM for a permit to surface mine coal on 214 acres adjacent to the park. On Monday, February 14, 1994, the National Parks and Conservation Association in conjunction with the City of Middlesboro filed an unsuitability petition to designate the subject lands unsuitable for coal mining under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). A central issue raised by the proposed mine is whether the company has "valid existing rights" to mine the coal under SMCRA. Section 522(e)(3) of the Act requires an entity to possess valid existing rights to mine coal adjacent to a publicly owned park if such mining will adversely affect the park. Preliminary NPS data indicates that the proposed mine will degrade surface water quality from mined-land runoff and cause impairment to the scenic vistas in the area (the entire mining area is visible from the most popular scenic overlook in the park).

The question of "valid existing rights" under SMCRA has been a highly litigated issue and one that often has raised the issue of "takings" under the U.S. Constitution. This question needs to be

addressed first before a commitment of staff and resources is made to evaluating the possible environmental effects of the proposed mine.

In addition to working with park staff, branch staff have been working with the OSM Solicitor's Office in Washington on the question of valid existing rights issue and OSM's Tennessee office on the handling of both the permit and unsuitability petition. Once OSM finds that the proposed mine plan is complete, Apollo Fuels must release the mine plan for public review and comment. Consideration of the unsuitability petition through an environmental impact statement process could take OSM up to one year to complete. No mining can occur until a decision is made as to whether the company possesses valid existing rights to mine the coal and OSM makes an unsuitability determination. (Moss, McCoy)

SOUTHWEST REGION

Exposed Natural Gas Pipeline in Big Thicket Causes Problems: NPS and Pipeline Company Finding "Win-Win" Solutions - Transcontinental Pipe Line Corporation (Transco) is seeking NPS approval to conduct soil core sampling and analysis at five locations in the Neches River Corridor Unit of Big Thicket National Preserve (BITH). The purpose of Transco's sampling effort is to obtain data to determine whether horizontal drilling technology can be used to place a new section of natural gas pipeline beneath the Neches River. Erosion and changes in the river channel have exposed a section of Transco's existing pipeline, creating safety and resource protection concerns. At the region's request, branch staff evaluated Transco's proposal and determined that the sampling program was well planned and should provide the necessary information. If core sample results are favorable, Transco intends to submit a comprehensive plan of operations for installing the new pipeline section and abandoning the old section. If all goes as planned, Transco could install the pipeline 120 feet beneath the surface without any surface disturbance inside the park. The project could certainly be a "win-win" for the park and Transco. The park would benefit from the project because boring and installation of the pipeline at a depth of 120 feet eliminates the need to remove trees and maintain a rights-of-way through the park, and Transco intends to reclaim the existing pipeline rights-of-way in the park. Transco would benefit by correcting the current pipeline maintenance and safety problem, and reducing future pipeline rights-of-way maintenance expenses. (O'Dell)

WESTERN REGION

Minerals Management Issues Evaluated in Death Valley Draft RMP - At the region's request, branch staff submitted comments on the geologic and minerals management sections of the Death Valley National Monument (DEVA) Draft Resources Management Plan (DRMP). Our comments focused on several issues that the park should address in their preparation of a final RMP. Issues raised included the following: correction of terminology describing the park's geologic history and resources; need to expand sections on abandoned mineral lands management, monitoring active mining operations in and adjacent to the park, and potential for additional mining operations in and near the park; and minerals management issues associated with the pending expansion of DEVA. (Moss, Covington)

Whiskeytown's North Star Quartz Lode Claim is Officially Abandoned and Void - The branch received official confirmation from BLM that the North Star Quartz lode mining claim is abandoned and void. In June 1992, branch staff submitted a mineral report to BLM for approval, which recommended that the claim should be contested for lack of discovery. Rather than answer the

contest, the claimants chose to abandon the claim and three adjacent claims just outside the park boundary, to clean up the site, and not to pay assessment work for 1992. The BLM issued its decision voiding the claims based on the claimants' lack of 1992 assessment work. Since the claimants did not appeal, the BLM's decision closed the case on September 15, 1993. No other unpatented mining claims remain in the Whiskeytown Unit. (Burghardt)

Interior Board of Land Appeals Decision on Mining Claims in Death Valley Goes Against the NPS

- The Interior Board of Land Appeals (IBLA) handed down a decision in the Dresselhaus Case involving the Del Norte, Del Norte No. 5, Del Norte Fraction and Inyo No. 1 lode mining claims. The NPS through the Bureau of Land Management (BLM) had asserted that the claims were abandoned and void for failing to file a notice of intent to hold the claims in 1979. The IBLA ruled that the Board will apply the doctrine of estoppel where confusion existed regarding recordation and filing requirements under the Mining in the Parks Act. The Board concluded that the BLM not only provided inaccurate information about the proper place of filing but also concealed a material fact from the claimants. Carl Dresselhaus et al., 128 IBLA 26 (Nov. 16, 1993). It is not known if the case will be appealed. It is quite possible that the time limit on appealing the IBLA decision may have already passed. (Covington)

PROFESSIONAL DEVELOPMENT

Branch Staff Attend the 9th V.E. McKelvey Forum on Mineral Resources

- The 9th V.E. McKelvey Forum, sponsored by the U.S. Geological Survey, was held in Tucson, Arizona, February 22-25. The conference brought together representatives from the U.S. G. S., Bureau of Land Management, Bureau of Mines, Bureau of Indian Affairs, the U.S. Forest Service, other federal and state agencies and the mining industry. Topics of particular interest to the branch included acid mine and natural acid drainage, ecosystem management, and the East Mojave. (Covington)

National Indian Energy/Minerals Conference Held in Denver - Branch staff attended the 3-day conference February 1-3 at the Denver Marriott West. The proximity to NPS headquarters allowed staff to attend individual sessions related to their specific areas of interest (e.g., mineral materials, oil and gas, hard rock, coal, etc.). The conference gave the NPS an opportunity to monitor the BIA management philosophy concerning exploration, development, and production in areas adjacent to park units and learn how the BIA proposes to mitigate adverse impacts through planning, inspection, monitoring, bonding, and enforcement procedures. Exhibits from a variety of private companies, federal and state agencies, and universities demonstrated the latest advances in environmental monitoring, geotechnical investigations, and information processing and were well attended. (Cloues)

Educational Outreach Touches Future Scientists

- Branch staff have participated in two recent events to help stimulate interest in our youth to be future scientists dedicated to protecting our environment. As Secretary Babbitt expressed in his December 7, 1993 memorandum, "I ask all employees of the Department to work with me ... to reach out to surrounding communities and educational institutions to develop interest among all segments of the population in natural resources conservation in general and Department of the Interior programs in particular." The first opportunity involved the judging of a local grade school science fair with a wide variety of hands-on exhibits from volcanoes and crystals to water turbines and a study of bird nest construction materials. The second was a request from a junior high school student in Indianola, Iowa, looking for mineral information in the National Parks. He was sent an abbreviated lesson plan on park minerals from our training

modules, a copy of the AML brochure, and other information. "From little acorns grow large oak trees." (Cloues)