ULP-D00217876

Letter to Energy Fuels Resources Corp. Concerning Credit for Reclamation

Department of Energy
Washington, DC 20585

October 6, 2011

OLM-LEK-2011-161

Mr. Dick White, Vice President
Exploration Colorado/Utah Operations
Energy Fuels Resources Corporation
44 Union Boulevard, Suite 600
Lakewood, CO 80228

Subject: Credit for Reclamation Performed in Lieu of Royalties

Dear Mr. White:

The U.S. Department of Energy (DOE) and its contractor have monitored the reclamation work scope performed by Energy Fuels Resources Corporation (EFR), in lieu of a portion of the annual royalty payments for the 2011-2012 lease year, and have concluded that the work was completed in a satisfactory manner. In accordance with DOE's letter dated June 22, 2011, EFR is hereby credited with annual royalty payments in the aggregate amount of $7,700, to be distributed and credited to EFR's seven lease tracts as indicated: C–SR–16A ($337.79); C–AM–19 ($299.40); C–AM–19A ($3,577.47); C–AM–20 ($2,049.75); C–CM–24 ($499.00); C–G–26 ($445.26); and C–G–27 ($491.33). DOE greatly appreciates EFR's efforts in addressing these issues and we trust that this arrangement was beneficial for both parties

Please contact me at (720) 880–4338, or Ed Cotter of my contractor staff at (970) 248–6056, should you have any questions concerning this matter. Please send any correspondence to:

U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

Sincerely,

2011.10.06 14:36:28 -06'00'

Laura E. Kilpatrick, Esq.
Realty Officer

cc:
Project File (E. Cotter)

ULP 023.07(B)

Printed with soy ink on recycled paper

ULP 001208

Department of Energy
Washington, DC 20585

June 22, 2011

OLM-LEK-2011-094

Mr. Dick White, Vice President
Exploration Colorado/Utah Operations
Energy Fuels Resources Corporation
44 Union Boulevard, Suite 600
Lakewood, CO 80228

Subject: Annual Royalties for Mining Lease Numbers AT(05-1)-ML-60.8-C-SR-16A, C-AM-19, C-AM-19A, C-AM-20, C-CM-24, C-G-26, and C-G-27

Dear Mr. White:

In accordance with the Lease Agreements for U.S. Department of Energy (DOE) Lease Tracts C-SR-16A, C-AM-19, C-AM-19A, C-AM-20, C-CM-24, C-G-26, and C-G-27, annual royalties in the aggregate amount of $100,300 are due and payable to DOE on June 27, 2011. With reference to recent discussions, DOE has identified specific work scope (hazard mitigation and reclamation activities) that can be performed on various DOE lease tracts in lieu of a portion of these annual royalty payments. The DOE has determined the value of this work scope to be $7,700. A copy of the specific work scope is enclosed for your review.

On the basis of your review, if Energy Fuels Resources (EFR) agrees to perform the work scope specified, please formalize your acceptance by signing in the space provided on the enclosure and returning that document to me. If accepted, please recognize that the balance of annual royalties due to DOE ($92,600) must be paid by June 27, 2011. Project personnel will coordinate a schedule with you that will ensure the completion of these activities after August 15, 2011, but during the 2011 lease year. Upon completion of all activities, EFR will be credited with the appropriate annual royalty payments.

If you choose to decline this option at this time, the entire annual royalty amount ($100,300) is due and payable on June 27, 2011.

Please contact me at (720) 880–4338, or Ed Cotter of my contractor staff at (970) 248–6056, should you have any questions concerning this matter. Please send any correspondence to:

U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

Sincerely,

Laura E. Kilpatrick 2011.06.22 14:53:45 -06'00'

Laura E. Kilpatrick, Esq.
Realty Officer

Enclosure

cc: Project File (E. Cotter)

Printed with soy ink on recycled paper

ULP 023.07(B)

Acknowledgment and Acceptance

Energy Fuels Resources (EFR) hereby acknowledges the work scope, and its determined value ($7,700), as referenced in the letter dated June 22, 2011. EFR hereby agrees to perform the defined work scope in lieu of a portion of the annual royalty payments due for Lease Tracts C-SR-16A, C-AM-19, C-AM-19A, C-AM-20, C-CM-24, C-G-26, and C-G-27 for the 2011–2012 lease year (aggregate sum of $100,300). EFR further acknowledges that the balance of annual royalties owed to DOE ($92,300) is due and payable to DOE on or before June 27, 2011.

_____

Signature/Title

_____

Date

ENERGY FUELS RESOURCES CORPORATION

June 28, 2011

RECEIVED
JUN 30 2011

To: Ed Cotter, Program Lead
DOE Uranium Leasing Program
S.M. Stoller
2597 Legacy Way
Grand Junction, Colorado 81503

Re: RILOR

Mr. Cotter:

Energy Fuels Resources Corporation (EFR) accepts the offer by DOE to perform reclamation in lieu of royalty as described by your office on the AM 19 and AM-20 lease tracts. Enclosed, please find the signed Acknowledgment and Acceptance form.

If you have questions, please contact Dick White at 303-974-2152 or e-mail to d.white@energyfuels.com. Thank you for your attention to this matter.

Respectfully,

Dick White

Dick White
VP Exploration Colorado/Utah Operations
Energy Fuels Resources Corporation

Energy Fuels Resources Corporation
www.energyfuels.com

44 Union Blvd., Suite 600
Lakewood, Colorado 80228
Phone: 303-974-2140
Fax: 303-974-2141

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JAN 30 2001

Acknowledgment and Acceptance

Energy Fuels Resources (EFR) hereby acknowledges the work scope, and its determined value ($7,700), as referenced in the letter dated June 22, 2011. EFR hereby agrees to perform the defined work scope in lieu of a portion of the annual royalty payments due for Lease Tracts C-SR-16A, C-AM-19, C-AM-19A, C-AM-20, C-CM-24, C-G-26, and C-G-27 for the 2011–2012 lease year (aggregate sum of $100,300). EFR further acknowledges that the balance of annual royalties owed to DOE ($92,300) is due and payable to DOE on or before June 27, 2011.

Dick White / VP Exploration
Signature/Title Colorado/Utah
Energy Fuels Resources Corp.

6-28-11
Date

DOE Uranium Leasing Program

Energy Fuels Resources — Work Scope for 2011 Reclamation in-lieu-of Royalty

Background

In 2007, the U.S. Department of Energy Office of Legacy Management (DOE) redefined and realigned the boundaries of its uranium lease tracts to incorporate lands located inside its withdrawal boundaries that were valid claims at the time of the withdrawals but have since became invalid. As a result of those boundary redefinition/realignment activities, many of the current lease tracts now contain mining-related features that are associated with abandoned uranium mine sites located on those claims. By incorporating these lands into its lease tracts, DOE accepted the reclamation liability associated with those mining-related features.

Current Status

During the 2010 field season, ULP personnel identified additional mining-related features on Lease Tracts C–AM–19 and C–AM–20 as outlined below.

Work Scope

C-AM-19

The Worcester Shaft has subsided to a depth of 35-40 feet and needs to be addressed. The shaft shall be backfilled with available mine-waste-rock materials to within five feet of the ground surface. A polyurethane foam plug will then be placed on top of the fill material to prevent further subsiding in the future. The remaining portion of the shaft shall then be backfilled to the surface and mounded slightly with available surface soil materials. The disturbed area shall be reseeded with an approved seed mixture (copy attached).

The King Solomon Vent No. 2 has subsided to a depth of 40-50 feet and needs to be addressed. The vent shaft shall be backfilled with available materials to within five feet of the ground surface. A polyurethane foam plug will then be placed on top of the fill material to prevent further subsiding in the future. The remaining portion of the shaft shall then be backfilled to the surface and mounded slightly with available surface soil material. The disturbed area shall be reseeded with an approved seed mixture.

There are several small subsidences at the Cliff Dweller Mine portal that need to be addressed. These subsidences shall be backfilled to the ground surface and then mounded slightly with available materials. The disturbed area shall be reseeded with an approved seed mixture.

C-AM-20

A 20–inch open vent with metal casing, located on southeast corner of Abajo No. 4 Claim, needs to be addressed. The vent shall be secured by welding grating to the top of the casing.

Note: The total work identified herein is considered equitable to $7,700 and shall be performed after August 15, 2011. This work shall be performed to the satisfaction of the DOE Realty Officer and/or his LMS Contractor representatives from S.M. Stoller Corporation, who shall provide project oversight of the reclamation field activities.

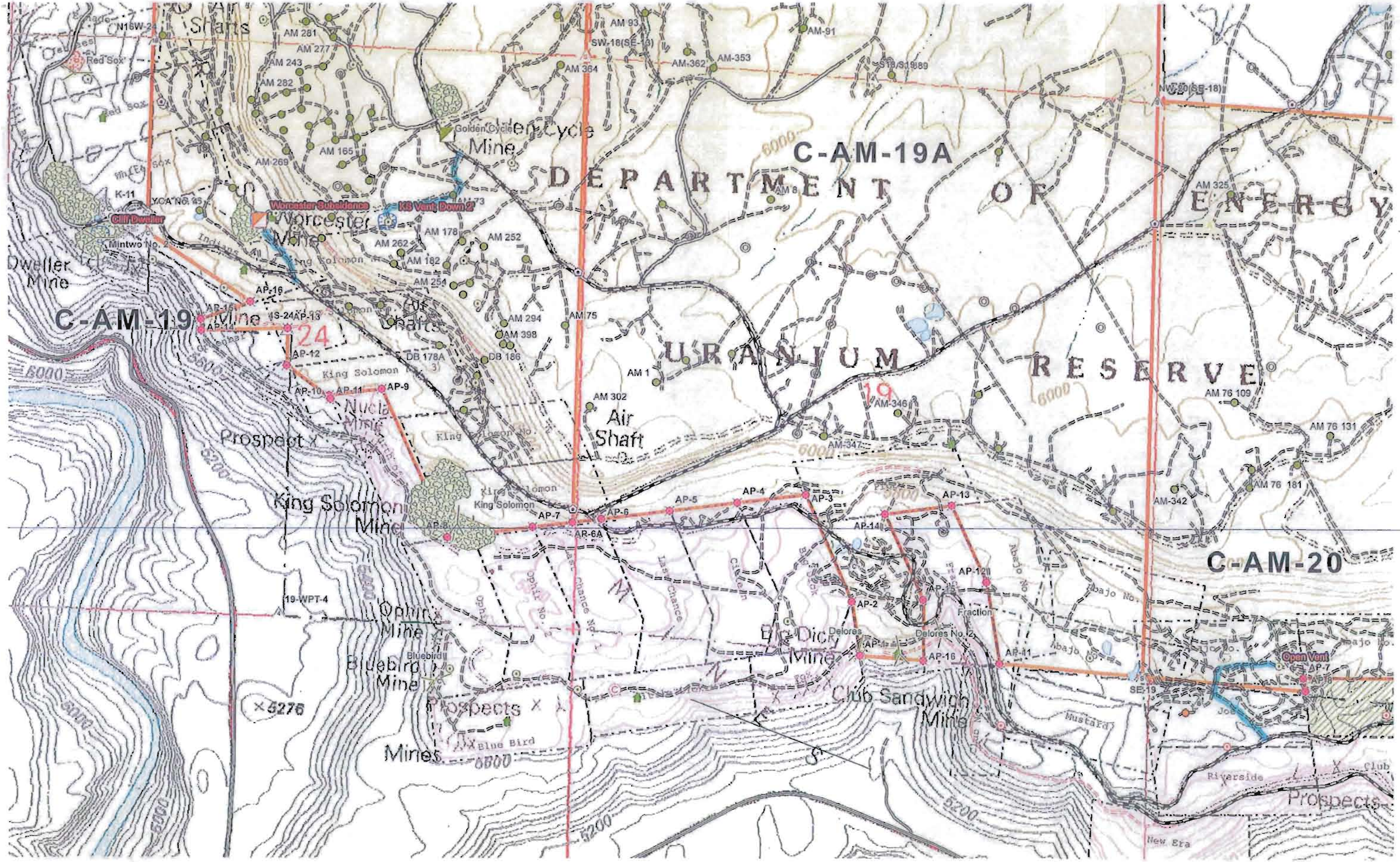
Summary of Estimated Costs for 2011 Reclamation Field Activities — Energy Fuels Resources in-lieu-of Royalties

C–AM-19

Date (Sept - Oct	Unit Cost	Mob				DM	Total
Equip. Operator	2,000		1	1	1		3
Laborers	1,400		1	1	1		3
Trackhoe (320	4,560						0
Trackhoe (307	3,600						0
Mini-Excavator	1,400						0
Dozer (D–8	6,800						0
Dozer (D–6	5,520						0
Dozer (D–4	2,540						0
FE Loader (966	3,120						0
Backhoe (580	2,640	1	1	1	1	1	5
Skidster Loader	1,680						0
Grader/Maintainer	3,120						0
Dump Truck (tdm	2,880						0
Dump Truck (rock							0
Water Truck	2,880						0
Flatbed Trailer	700						0
Pickup (4X4	1,920						0
Portable Welder	540				1		1
Oxy/Acet Torch Ki	540				1		1
Bat Gate Inst. (LS							0
Seed Mix (LS	280				1		1
PUF (backpack units	200		2	2	2		6
Fuel Allowance	50		1		1		2
SUB (Initials							
GJO (Initials							

EFR Reclamation in-lieu-of Royalties — Estimated Costs

Description	Days on Job	4-day Weeks	Cost per Week	Total Cost
Equip. Operators	3	0.75	2,000	1500
Laborers	3	0.75	1,400	1050
Trackhoe (320)	0	0	4,560	0
Trackhoe (307)	0	0	3,600	0
Mini-Excavator	0	0	1,400	0
Dozer (D–8)	0	0	6,800	0
Dozer (D–6)	0	0	5,520	0
Dozer (D–4)	0	0	2,540	0
FE Loader (966)	0	0	3,120	0
Backhoe (580)	5	1.25	2,640	3300
Skidster Loader	0	0	1,680	0
Grader/Maintainer	0	0	3,120	0
Dump Truck (tdm)	0	0	2,880	0
Dump Truck (rock)	0	0	0	0
Water Truck	0	0	2,880	0
Flatbed Trailer	0	0	700	0
Pickup (4X4)	0	0	1,920	0
Portable Welder	1	0.25	540	135
Oxy/Acet Torch Kit	1	0.25	540	135
Bat Gate Inst. (LS)	0	0	0	0
Seed Mix (LS)	1	1	280	280
PUF (backpack units)	6	6	200	1200
Fuel Allowance	2	2	50	100
			Total Cost	7700



EFR 2011 RILOR

U.S. Department of Energy Office of Legacy Management
National Environmental Policy Act Environmental Checklist

Project/Activity: Reclamation Projects in Energy Fuels Resources (EFR) Lease Tracts (LT) C-AM-19 and C-AM-20, Uranium Leasing Program

A. Brief Project/Activity Description

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) proposes to backfill subsided areas over three former mine shafts, vents, or portals located on LT C-AM-19 and to weld a grate over an open vent on LT C-AM-20. Employees or independent contractors associated with EFR, the lessee, would complete all work within an expected 4 days. Both lease tracts are in western Montrose County north of the San Miguel River and several miles northwest of the former town of Uravan, Colorado. A general figure is attached that provides the location of the lease tracts. In addition, a site-specific figure that shows both lease tracts and the locations of the work areas is also attached. Existing roads would be used to access work areas. All work would be completed after migratory bird nesting and breeding season and there is no possibility of impacts to protected resources. Documentation that cultural resources, vegetation, and wildlife resources would not be affected is attached to this checklist. Proposed work is described below in a west to east direction.

Cliff Dweller Mine Portal LT C-AM-19

The Cliff Dweller mine was developed in the 1980s and reclaimed in 1998. Reclamation consisted of backfilling the decline portal with mine-waste-rock materials; surrounding areas were graded and seeded with primarily perennial grasses. Settling of surface materials has resulted in several small subsided areas approximately 10 to 12 feet (ft) deep that open into the former mine workings. The exposed surface openings are approximately 18 inches in diameter and pose a safety hazard. A backhoe or similar equipment would be used to push adjacent mine waste materials into the subsided areas, and the area would be left mounded to reduce potential future settling. All newly disturbed areas would be graded as needed and seeded with an approved seed mixture.

Worcester Shaft LT C-AM-19

The Worcester mine was developed in the mid-1950s and early 1960s and was reclaimed in the mid-1990s using mine-waste-rock materials. Materials in the shaft have subsided to a depth of 35 to 40 ft. The surface opening is approximately 6 ft square and presents a safety hazard. Approximately 25 ft of the shaft would be filled with mine-waste rock materials from surrounding areas. A polyurethane foam plug would be placed on top of these materials to prevent future subsidence, and the remaining approximately 2 ft would be backfilled with additional surface materials. All newly disturbed areas would be graded as necessary and seeded with an approved seed mixture.

King Solomon Vent No. 2, LT C-AM-19

Vent No. 2 is part of the King Solomon mine complex in LT C-AM-19. The materials in the vent have subsided to a depth of 40 to 50 ft. Surface-soil materials from surrounding areas would be used to backfill the vent to within approximately 15 ft of the ground surface. A polyurethane foam plug would be placed on top of these materials to prevent future subsidence, and the remaining area would be backfilled with additional surface materials. All newly disturbed areas would be graded as necessary and seeded with an approved seed mixture.

Abajo No. 4 Claim Vent, LT C-AM-20

An open metal-cased vent shaft approximately 20 inches in diameter is a safety hazard. A metal grate would be welded to the top of the vent.

B. Environmental Concerns

Evaluate the following elements and indicate by checking "yes" or "no" if any phase of the project/activity would result in a change or impact that is subject to regulatory permits, controls, or plans or that would require additional evaluation. If the "yes" column is checked, provide a brief explanation below and attach sheets with additional detail as necessary or appropriate.

Element	Yes	No	Element	Yes	No
Air emissions/air quality	☒	☐	Exposure/impacts to public or workers	☐	☒
Noise	☒	☐	Need for public awareness/involvement	☐	☒
Solid waste generation	☐	☒	Transportation/traffic control required	☐	☒
Mixed waste management	☐	☒	Access to/use of DOE property	☐	☒
Chemical storage on site	☐	☒	Visual resources impacted	☐	☒
Pesticide/herbicide use	☐	☒	Cultural/archaeological resources present	☐	☒
Toxic substances management	☐	☒	Wetland/floodplain impacted	☐	☒
Regulated quantities of petroleum used or stored on site	☐	☒	Protected species present: federal, state, or tribe listed	☐	☒
Radioactive materials/soils	☐	☒	Migratory birds breeding or nesting	☐	☒
Surface (ground) disturbance	☒	☐	Wild/scenic rivers impacted	☐	☒
Surface water use/contamination	☐	☒	Prime/unique farmlands present	☐	☒
Surface water quality	☐	☒	Groundwater use/contamination	☐	☒
Groundwater quality affected	☐	☒	Water depletion	☐	☒

In addition to potential environmental concerns, it is recognized that a variety of resources are used to conduct any action related to this site. For example, travel to the site would use fuel, and there would be a negligible depletion of this resource as a result and a corresponding negligible increase in greenhouse gas.

C. Explanation and Qualification of All "Yes" Responses

Air emissions/air quality: Heavy equipment used to backfill subsided areas would likely result in minor and temporary fugitive dust.

Noise: The use of a backhoe or other heavy equipment would result in elevated noise levels during the period of operation.

Surface (ground) disturbance: Minor surface disturbance in previously disturbed areas would be associated with backfilling the subsided areas at the Cliff Dweller Mine, the Worcester shaft, and King Solomon vent. All newly disturbed areas would be seeded with approved seed mixtures. No ground disturbance is associated with welding a grate to the vent on the Abajo No. 4 claim.

D. Eligibility/Conditions

The proposed action fits within a class of actions listed in Appendix A or B to Subpart D of Title 10 *Code of Federal Regulations* Part 1021 (10 CFR 1021); DOE has determined that these classes of actions do not individually or cumulatively have a significant effect on the human environment (see 10 CFR 1021.410). There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposed action, and the proposed action is not "connected" to other actions with potentially significant impacts. Finally, the action is

not related to other proposed actions with cumulatively significant impacts and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

To fit within the classes of actions listed in 10 CFR Part 1021, Appendix B of Subpart D, the proposed action must not:

- Violate applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and Executive Orders.
- Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators and facilities for treating wastewater, surface water, and groundwater).
- Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases.
- Adversely affect environmentally and culturally sensitive resources. An action may be categorically excluded if, although sensitive resources are present on a site, the action would not adversely affect those resources.

E. Recommendation

The proposed sealing of a mine portal, backfilling of the subsided shafts, and re-welding of a grate over the open vent are allowable activities under Criterion B1.28 of Appendix B to Subpart D of 10 CFR 1021: "Minor activities that are required to place a facility in an environmentally safe condition where there is no proposed use for the facility." Final grading and revegetation actions are allowable activities under Criterion B1.3 (k) of Appendix B to Subpart D of 10 CFR 1021: Erosion control and soil stabilization measures (such as reseeding and revegetation).

☒ Meets Criteria ☐ Does Not Meet Criteria ☐ Unsure

F. Project Concurrences

Sandra Beranich 2011.07.19 08:31:41 -06'00'

LMS Contractor NEPA Coordinator — Date
Sandy Beranich

2011.07.19 10:34:09 -06'00'

LMS Contractor Program Lead — Date
Ed Cotter

Laura E. Kilpatrick 2011.07.19 13:41:56 -06'00'

LM Realty Officer — Date
Laura Kilpatrick

G. NEPA Determination

The scope of actions proposed under Section A of this Environmental Checklist, and the information relevant to the potential for environmental impacts in Section B have been reviewed, and the following has been determined:

- [x] The proposed actions meet the criteria for categorical exclusion.
- [ ] The proposed actions do not meet the criteria for categorical exclusion; therefore, I recommend that the LM NEPA Planning Board be convened based on my recommendation (see attached rationale) to complete:
  - [ ] an Interim Action
  - [ ] an Environmental Assessment
  - [ ] an Environmental Impact Statement
  - [ ] a Supplemental Analysis

Tracy A. Ribeiro 07/26/11

LM NEPA Compliance Officer
Tracy Ribeiro

Date

Attachments

Distribution upon signature:

All signatories

S. McDowell, Stoller Records
S. Osborn, Stoller Compliance Manager

U.S. Department of Energy
Office of Legacy Management
Categorical Exclusion Determination Form

Program or Field Office: Office of Legacy Management

Project Title and I.D. No.: Reclamation Projects in Energy Fuels Resources Lease Tracts C-AM-19 and C-AM-20, Uranium Leasing Program

Location: Western Montrose County, CO

Proposed Action or Project Description:

Employees or contractors of Energy Fuels Resources under the supervision of U.S. Department of Energy contractor staff would backfill subsided areas associated with the former Cliff Dweller Mine (portal), Worcester Mine (shaft), and King Solomon Mine (vent) on uranium lease tract C-AM-19. All three areas had been previously reclaimed and subsidence has resulted in a safety hazard.

There are several small areas that have subsided to a depth of ten feet over the Cliff Dweller Mine portal. Adjacent mine-waste-rock materials would be used to backfill the subsided areas. Subsidence over the Worcester shaft and King Solomon vent would be backfilled with mine-waste-rock and other surface-soil materials from adjacent areas, topped with a polyurethane foam plug, and covered with additional materials. The foam plug would prohibit further subsidence. After completion of the reclamation, newly disturbed areas would be graded as necessary and seeded with an approved seed mixture.

In addition, there is an open vent on the Abajo Claim No 4 on lease tract C-AM-20. A grate would be welded to the metal-cased vent.

Existing roads would be used to access work areas and all work would be scheduled after migratory bird nesting and breeding season. Due to the highly disturbed nature of the surrounding areas from past mining activities, no impacts to protected resources would be associated with these activities.

Categorical Exclusion(s) Applied:

B1.28: Minor activities that are required to place a facility in an environmentally safe condition. The open vents and shafts and other subsided areas are an environmental and public safety concern.

B1.3 (k): Erosion control and soil stabilization measures (such as reseeding and revegetation).

*For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, see Subpart D of 10 CFR 1021.

This action would not threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders; require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include such categorically excluded facilities; disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; or adversely affect environmentally sensitive resources (including but not limited to those listed in paragraph B.(4)) of Appendix B to Subpart D of 10 CFR 1021). Furthermore, there are no extraordinary circumstances related to this action that may affect the significance of the environmental effects of the action; this action is not "connected" to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 of 10 CFR 1021.211.

Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: Tracy A. Ribeiro

Date Determined: 07/26/11

Comments:

Cotter, Ed (CONTR)

From: Beranich, Sandy (CONTR)
Sent: Tuesday, July 26, 2011 1:28 PM
To: Ribeiro, Tracy; Kilpatrick, Laura; Cotter, Ed (CONTR)
Subject: RE: F C-AM-19 and C-AM-20 Reclamation Checklist

Tracy,

I have slightly edited my earlier response to you on these questions and provide the following information for record purposes:

Seed Mix: DOE and representatives of three BLM field offices reached agreement on one seed mix that the lessees could use for any site, recognizing that not all species would be successful everywhere, due to changes in elevation, aspect, etc., but that approximately 80% of the species would germinate anywhere.

Bats: Bats need through air circulation and an environment that would allow their echolocation to respond to environmental clues. Vertical shafts or vents without connected workings would not provide suitable habitat. Therefore, bats would not be an issue.

Safety hazards: The open vents and shafts are all safety hazards - many people like to recreate in backcountry areas. Hazards associated with mine openings provide an attractive nuisance. There are numerous cases where people and animals have fallen into shafts and vents and hence the potential liability.

Re the use of polyeurethane material (foam): Ed Cotter provided the following research: According to the National Park Service, Mining and Minerals Branch, polyurethane foam (PUF) is inert/non-reactive and is only degraded by extreme heat (fire) and ultraviolet light (sunlight). Although one of the two reagents that make up PUF is a toxic isocyanate, once combined, the isocyanate is complexed into a stable, non-toxic form that can be discarded into any sanitary landfill without restrictions. During combustion, PUF releases carbon monoxide and traces of hydrogen cyanide, which is why, in our applications, it's always covered with adequate (several feet of) surface soil materials.

-----Original Message-----
From: Ribeiro, Tracy
Sent: Monday, July 25, 2011 5:33 PM
To: Beranich, Sandy (CONTR); Kilpatrick, Laura; Cotter, Ed (CONTR)
Subject: F C-AM-19 and C-AM-20 Reclamation Checklist

Three questions on the checklist, which are briefly:
Who approves the seed mix?
Any potential affects on bats?
Is the King Solomon activity a safety issue?

Also, a curiosity question: is polyurethane material an environmentally safe product?

Let me know.
Thanks,
Tracy

Trip Report

Purpose: Field surveys for T&E and sensitive plant species
Location: Uranium Lease Program Sites C-AM-19 and C-AM-20, areas to be disturbed by mine reclamation activities planned in fall, 2011. Specific locations listed below.
Date: July 12, 2011
Trip Report by: Linda Sheader, botanist/ecologist, S.M. Stoller Corporation, contractor to U.S. Department of Energy Office of Legacy Management

A detailed summary of all listed Threatened/Endangered and Bureau of Land Management (BLM)– and Forest Service (FS)–sensitive plant species that occur in Montrose County, CO, including rationale for inclusion in these field surveys is in the site's NEPA documentation. During the field visit, surveys were performed for the following species:

- *Astragalus naturitensis* (Naturita milkvetch), BLM–sensitive
- *Astragalus rafaelensis* (San Rafael milkvetch), BLM–sensitive
- *Astragalus sesquiflorus* (sandstone milkvetch), BLM–sensitive
- *Astragalus wetherillii* (Wetherill's milkvetch), FS–sensitive
- *Cirsium perplexans* (adobe thistle), FS–sensitive
- *Pediomelum aromaticum* (aromatic Indian breadroot), BLM–sensitive
- *Sclerocactus glaucus* (Colorado hookless cactus), Federally threatened

Four specific locations, numbered below, were surveyed, each surrounding the site of proposed mine reclamation activities. The general vegetation around each location was briefly summarized. After this, concentric transects around each location were walked and surveyed in detail for the presence of any species in question. The size of the area surveyed depended upon the size of the planned disturbance, but was always greater than the extent of the planned disturbance.

1) Cliff Dweller (on/near C-AM-19). Area surveyed: approximate 40 ft radius around subsided portal, plus access area (reclaimed road). All work will be performed in a previously disturbed area, reclaimed in the late 1990's. The disturbed area is surrounded by patches of *Ericameria nauseosa* and pinon-juniper forest, which will not be disturbed. None of the target genera (*Astragalus*, *Cirsium*, *Pediomelum*, or *Sclerocactus*) were found within the work area during field surveys. Dominant species include *Elymus trachycaulus*, *Melilotus officinalis* (syn. *Melilotus alba*), and *Pleuraphis jamesii*. Less common species include *Achnatherum hymenoides*, *Bouteloua gracilis*, *Bromus tectorum*, *Convolvulus arvensis*, *Gutierrezia sarothrae*, *Hesperostipa comata*, *Heterotheca villosa*, *Krascheninnikovia lanata*, *Medicago sativa*, *Opuntia* sp., *Pascopyrum smithii*, and *Sphaeralcea coccinea*. Small numbers of Russian knapweed, a noxious species, were observed nearby.
2) Worcester Subsidence (on C-AM-19). Area surveyed: approximate 50 ft radius around subsided portal, plus access area (reclaimed road). All work will be performed in previously disturbed and reclaimed areas surrounding the subsidence. Soils immediately surrounding nearby historic cribwork structures will not be disturbed. None of the target genera were found in the work area

during field surveys. Dominant species include *Elymus trachycaulus* and *Gutierrezia sarothrae*. Less common species include *Achnatherum hymenoides, Bromus tectorum, Elymus elymoides, Ericameria nauseosa, Juniperus osteosperma, Melilotus officinalis, Mentzelia* sp., *Pascopyrum smithii, Pleuraphis jamesii, Salsola tragus,* and *Sarcobatus vermiculatus.* Russian knapweed plants in the area had recently been sprayed with herbicide.

3) King Solomon Vent (on C-AM-19). Area surveyed: approximate 100 ft radius around subsided portal, including areas surrounding large nearby rocks to be potentially placed in the portal, and reclaimed road. All work will be performed in a previously disturbed area, and access will be along reclaimed roads. The disturbed area is surrounded by a mosaic of pinon-juniper forest and sagebrush shrubland. Plants of the genus *Astragalus* were observed in the forest, but were not identified to species because they will not be disturbed. A single species of *Astragalus* was found in the reclaimed access road, but was determined not to be one of the sensitive species, as it differed in multiple characteristics. No target genera were found in the work area itself. Dominant species included *Pleuraphis jamesii* and *Elymus trachycaulus.* Less common species included *Achnatherum hymenoides, Aristida purpurea, Bromus tectorum, Convolvulus arvensis, Elymus elymoides, Ericameria nauseosa, Eriogonum* sp., *Euphorbia* sp., *Gutierrezia sarothrae, Hesperostipa comata, Krascheninnikovia lanata, Lepidium* sp., *Lomatium* sp., *Salsola tragus, Sarcobatus vermiculatus, Sisymbrium* sp., *Sphaeralcea coccinea, Stanleya pinnata,* and *Tragopogon dubius.* A large patch of Russian knapweed surrounds the subsided portal.
4) Open vent on C-AM-20. This vent will be closed by welding metal grating to the top. This activity will not involve any ground disturbance. Access to the site will be via a reclaimed road. One species of *Astragalus* was found on the reclaimed road but was determined not to be one of the sensitive species, as it differed in multiple characteristics. No other target genera were observed in the road or in the area surrounding the vent where a vehicle might travel.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Uncompahgre Field Office
2505 South Townsend Avenue
Montrose, Colorado 81401

TAKE PRIDE IN AMERICA

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CO-150

August 1, 2011

Bureau of Land Management
Uncompahgre Field Office
2505 South Townsend Ave
Montrose CO 81401

Sandy Beranich
S.M. Stoller Corporation
Contractor to the U.S. Department of Energy Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

Re: Mine Closure Project for Atkinson Mesa, in Montrose County, Colorado (Project # 11UN11)

Dear Sandy

This letter will serve as verification of compliance with the requirements of Section 106 of the National Historic Preservation Act for the Atkinson Mesa abandoned mine closures project (C-AM-19 and C-AM-20). Under the provisions of the 1998 Colorado State Protocol Agreement between the BLM and the Colorado State Historic Preservation Office (SHPO), BLM is not required to consult with SHPO on routine undertakings where there are no effects to National Register or otherwise eligible historic properties (protocol section C-2-a).

The Department of Energy in cooperation with the S.M. Stoller Corporation and the Bureau of Land Management, Uncompahgre Field Office proposes to address subsidence issues in two previously reclaimed mine shafts and one air vent in the C-AM-19 DOE lease parcel and to close one un-protected air shaft in C-AM-20 in the Atkinson Mesa Locality in western Montrose County. Under the BLM's Abandoned Mine Lands reclamation program, these open or subsided shafts are considered to be a public safety hazard and immediate closure is recommended.

The BLM has determined that no historic properties will be affected by the mine safety closure, as proposed and no further work is needed. BLM has examined the DOE proposal and has found that there will be no effects to Historic Properties, and DOE is in compliance with the provisions of Section 106 of the National Historic Preservation Act, as amended. The following stipulations should be attached to the project files and any appropriate contracts:

1. All recommendations for the treatment of the proposed mine closures will be followed as outlined below.

2. In the event that eligible cultural resources are discovered during the course of ground disturbance and cannot be avoided, work in the immediate vicinity of the discovery will cease.
3. The contractor in consultation with the BLM will ensure that the cultural resources are protected from further disturbance until decisions about treatment are made and treatment is completed.
4. Within 48 hours of the discovery, BLM will evaluate the site and, in consultation with SHPO, select the appropriate mitigation option. The BLM will implement the mitigation in a timely manner.

Should any previously unidentified cultural resources be encountered during the implementation of the proposed project, work must be interrupted, and these cultural resources must be reported to, and evaluated by the UFO Archaeologist in terms of the NRHP eligibility criteria recommendations relevant to this understanding.
If you have any questions, please call Glade Hadden, Uncompahgre Field Office Archaeologist, at 970-240-5303.

Sincerely

Glade Hadden
Archaeologist
Uncompahgre Field Office
BLM, Montrose, CO.

C-AM-19

Cliff Dweller Mine portal and locality has been entirely re-claimed in 1998 by the Department of Energy. The original tunnel completely lacks integrity, ambiance and any features or assemblage of artifacts. The site (if any) no longer exists and NRHP eligibility cannot be determined. Further inventory is exempted under the provisions of BLM manual 8110.23B2 and no further work is required.
Recommendations: The previously backfilled mine portal has subsided in several spots and needs to be backfilled to ground surface. The portal subsidence would be backfilled with available materials from the previous reclamation activities. BLM agrees with this recommendation and finds that no further cultural resource work is needed at this site.

Worcester Shaft
The Worcester mine was permitted by the DOE in the late 1970's and mining continued through the 1980's before the mine was abandoned and reclaimed. When mining operations ceased, all surface plant and support structures were removed, the shaft was backfilled and the surface disturbance was reclaimed. The only remaining evidence of uranium mining left at the locality consists of a cribbed-log loading structure supporting the mine shaft itself, which has since subsided leaving an eroded open shaft. The site (which is less than 50 years old) no longer has any integrity of place, ambiance, features or assemblages, and NRHP eligibility cannot be determined. Further inventory is exempted under the provisions of BLM manual 8110.23B2 and no further work is required.
Recommendations: DOE's plan is to backfill the subsided shaft opening and seal the top with a polyurethane foam plug. The subsided opening would be backfilled with material from the previous reclamation. BLM agrees with this recommendation and finds that reclamation work may be allowed to proceed with no further cultural resource work at this site. BLM also recommends avoidance of the log deck, which is the only remaining feature at this locality.

King Solomon Vent #2
The King Solomon mine (5MN 4490) was one of the largest mining complexes in the Atkinson Mesa group and continued in operation through the 1980's. The mine itself is addressed in the 1994 Uravan Mineral Belt study (Kramer and Patrick, 1994). The vent shaft #2 addressed here is a very large vent opening above the mine complex, accessed from the rim above. The shaft was constructed in the 1980's by drilling and back-cutting a seven foot diameter opening which then housed a large air vent fan. The locality has since been dismantled and backfilled. The previous backfill has subsided leaving a 40 to 50 foot-deep open hole in the ground with no associated features or artifact assemblages. The locality should not be considered as a historic property.
Recommendations: The air shaft should be closed for safety reasons. DOE's plan calls for backfilling the shaft with materials found on-site and sealing the surface with a polyurethane foam plug. BLM agrees with this recommendation and finds that no further cultural resource work is needed at this site.

C-AM-20

Abajo No. 4 Claim Vent Shaft
This open vent shaft is a steel cased 20 inch open vent leading several hundred feet underground to the Abajo #4 claim. DOE's proposal is to cover the open shaft with a steel grate welded to the casing. The locality is a recent isolate with no feature or assemblage integrity. Reclamation may be allowed to proceed with no further work.

References

Kramer, T. and R. Patrick
1994 *Uravan Mineral Belt: Inventory of Mine Sites in the San Juan and Uncompahgre Basin Resource Areas of the Bureau of Land Management*. BLM Project 95UB003. Prepared for the BLM by ECO Asc.

Evaluation of Federally Listed and Sensitive Species
Potentially Occurring on and Near the Uranium Lease Sites C-AM-19, C-AM-19A, and C-AM-20 (Atkinson Mesa)

Scientific Name	Common Name	Status		Comments
		Listed[1]	Sensitive[2]	
Wildlife				
Mammals				
Corynorhinus townsendii pallescens	Townsend's big-eared bat		BLM/FS	Habitat is not present; these bats would want flow through air which would not be present in shafts or vents.
Cynomys gunnisoni	Gunnison's prairie dog	C	BLM/FS	Habitat is not present; associated with grasslands, mountain meadows.
Cynomys leucurus	White-tailed prairie dog		BLM/FS	Habitat is not present; associated with grasslands and grassland shrublands, also, no known population in western Montrose CO.
Euderma maculatum	Spotted bat		BLM/FS	Habitat not present; may favor ponderosa pine or may prefer cliffs with water
Gulo gulo luscus	North American wolverine	C		Habitat is not present; Inhabits tundra, boreal, and alpine biomes.
Idionycteris phyllotis	Allen's (Mexican) big-eared bat		BLM/FS	Habitat is not present; would not roost in vertical shafts or vents.
Lynx canadensis	Canada lynx	T		Habitat not present (inhabits boreal forests)
Myotis thysanodes	Fringed myotis		BLM/FS	Habitat is not present; associated with P-J woodlands, greasewood,or sagebrush areas; would not roost in vertical mine shafts or vents.
Mustela nigripes	Black-footed ferret		Experimental	No habitat is present in any of the mined areas; associated with large prairie dog towns.
Nyctinomops macrotis	Big free-tailed bat		BLM	Habitat is not present; bats would not roost in vertical shafts or vents.
Ovis canadensis nelsoni	Desert bighorn sheep		BLM/FS	Habitat is not present;
Vulpes macrotis	Kit fox		BLM/FS	Within historic range but no known occurrences.
Birds				
Accipter gentilis	Northern goshawk		BLM/FS	All work would occur after breeding/nesting season is over. Could potentially be present in cliff areas along the Dolores River approximately 0.25 mile distant from the Cliff Dweller Mine.
Buteo regalis	Ferruginous hawk		BLM/FS	All work would occur after breeding/nesting season is over. Could potentially be present in nearby areas.
Centrocercus minimus	Gunnison sage grouse	C	BLM/FS	Habitat is not present; associated with sagebrush and lek areas.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	C		Habitat is not present.; associated with riparian areas
Falco peregrinus anatum	American peregrine falcon		BLM	All work would occur after breeding/nesting season is over; may potentially be present in the cliffs along the Dolores River, approximately 0.25 mile distant from the Cliff Dweller Mine.
Haliaeetus leucocephalus	Bald eagle		BLM/FS	Habitat is not present.
Numenius americanus	Long-billed curlew		BLM/FS	Habitat is not present.
Plegadis chihi	White-faced ibis		BLM/FS	Habitat is not present.
Pelecanus erythrorhynchos	American white pelican		BLM	Habitat is not present.

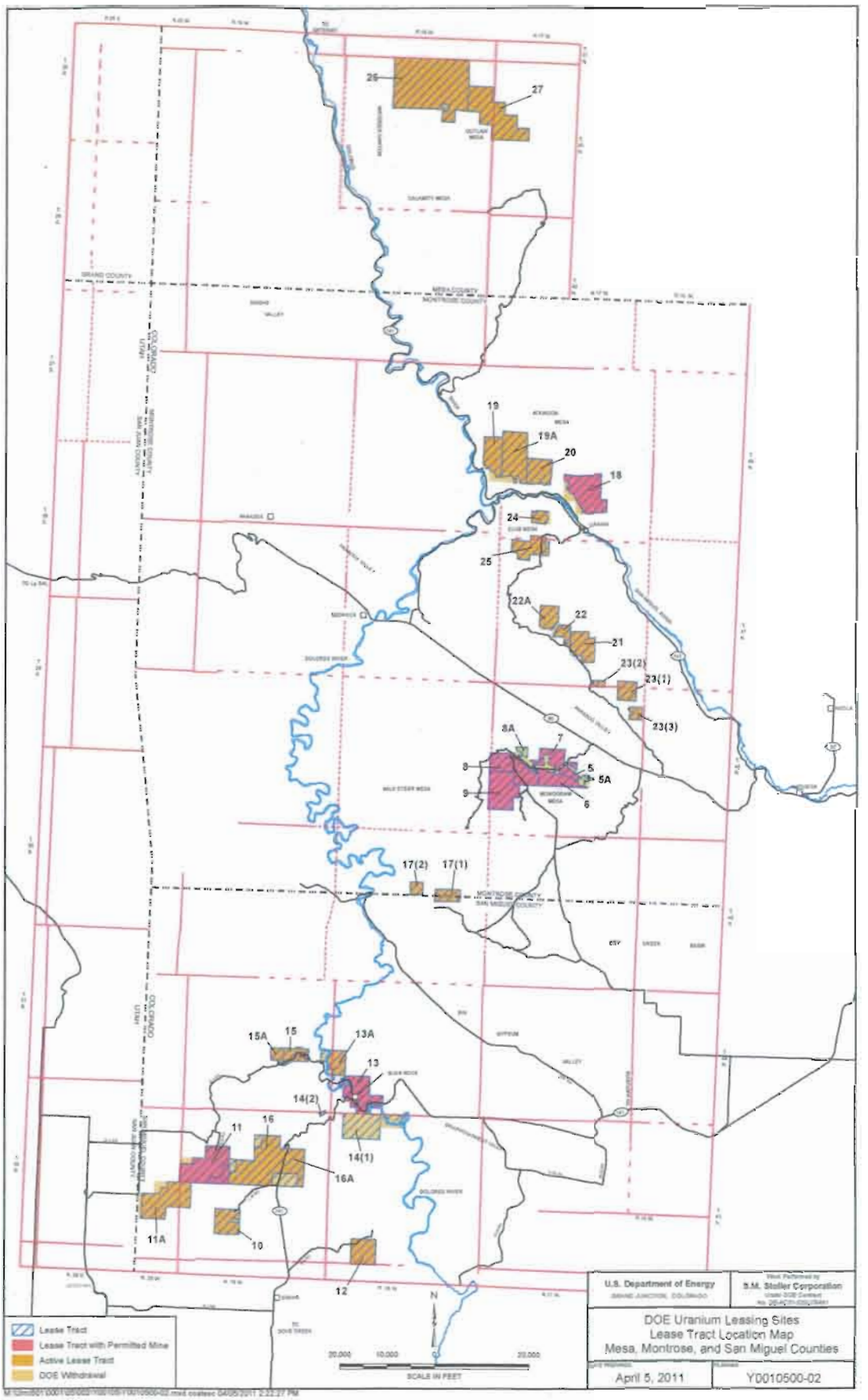
Scientific Name	Common Name	Status		Comments
		Listed[1]	Sensitive[2]	
Spizella berweri	Brewer's sparrow		BLM	Found in association with a sagebrush ecosystem – habitat is not present.
Strix occidentalis lucida	Mexican spotted owl	T		Habitat is not present; found in boreal forests.
Tympanuchus phasiainellus columbian	Columbian sharp-tailed grouse		BLM/FS	No habitat is present.
Amphibians				
Anaxyrus boreas boreas	Boreal toad		BLM/FS	Habitat not present (inhabits spruce-fir forests and alpine meadows, not known in Montrose County)
Hyla arenicolor	Canyon treefrog		BLM	Habitat not present
Rana pipiens	Northern leopard frog			Habitat not present (needs water)
Invertebrates				
Speyeria nokomis nokomis	Butterfly, Great Basin silverspot		BLM	No habitat is present; needs wetlands and bogs.
Fish				
Catostomus discobolus	Bluehead sucker		BLM	N/A
Catostomus latipinnis	Flannelmouth sucker		BLM	N/A
Gila robusta	Roundtail chub		BLM	N/A
Oncorhynchus clarki pleuriticus	Colorado River cutthroat trout		BLM	N/A
Oncorhynchus clarki stomias	Greenback cutthroat trout	T		N/A
Reptiles				
Crotalus viridis concolor	Midget faded rattlesnake		BLM	Possibly present; subspecies of rattlesnake; found on rocky ledges in Green River Formation; south to southeast facing outcrops. One occurrence noted in eastern Montrose County.
Gambelia wislizenii	Longnose leopard lizard		BLM	Need minimum large areas of xeric shrublands and sparse vegetation; considered rare in Colorado. Unlikely to be present in area but if present would not be impacted by proposed actions.
Lampropeltis triangulum taylori	Milk snake		BLM/FS	Would not inhabit mined areas.
Plants[3]				
Astragalus linifolius	Grand Junction milkvetch		BLM	No habitat is present near work area. Grows in soils derived from Chinle and Morrison Formations. The Morrison Formation occurs on the site below the mesa tops; all work will be done on mesa tops.
Astragalus naturitensis	Naturita milkvetch		BLM	Could occur in pinyon-juniper woodlands on mesa tops.
Astragalus rafaelensis	San Rafael milkvetch		BLM	Could occur in seleniferous clayey, silty, or sandy soils in gullied hills or washes. Such habitat is limited on site.
Astragalus sesquiflorus	Sandstone milkvetch		BLM	Could occur in sandstone rock ledges or in fissures of domed slickrock.
Astragalus wetherillii	Wetherill's milkvetch		FS	Could occur in sandy clay soils derived from shale or sandstone.
Calchortus flexuosus	Winding Mariposa lily		FS	No habitat is present near work area. Grows in soils derived from Mancos and Morrison Formations. The Morrison Formation occurs on the site only below the mesa tops; all work will be done on mesa tops.

Scientific Name	Common Name	Status		Comments
		Listed[1]	Sensitive[2]	
Cirsium perplexans	Adobe thistle		FS	Could occur in open and disturbed areas on site.
Cryptantha gypsophila	Gypsum Valley cateye		BLM	No habitat is present. Grows in Paradox member of the Hermosa Formation, which does not occur on site.
Cypripedium calceolus ssp. *parviflorum*	American yellow lady's slipper		FS	No habitat is present. Grows in aspen groves and ponderosa pine/Douglas fir forests, which do not occur on site.
Epipactis gigantea	Helleborine		FS	No habitat is present in work area. Occurs in seeps and springs.
Eriogonum pelinophilum	Clay-loving wild buckwheat	E		No habitat is present. Grows in soils derived from Mancos Shale, which does not occur on site.
Lesquerella vicina	Uncompahgre bladderpod		BLM	No habitat is present. Grows in soils derived from Mancos Shale, which does not occur on site.
Lomatium concinnum	Colorado desert parsley		BLM	No habitat is present. Grows in soils derived from Mancos Shale, which does not occur on site.
Lupinus crassus	Payson lupine		BLM	No habitat is present. Grows in soils derived from Chinle or Mancos Formation shales, which do not occur on site.
Mimulus eastwoodiae	Eastwood monkey flower		BLM	No habitat is present in work area. Occurs in seeps and springs.
Pediomelum aromaticum	Aromatic Indian breadroot		BLM	Could occur in sandy soils.
Ranunculus karelinii	Ice cold buttercup		FS	No habitat is present. This is an alpine and arctic species.
Sclerocactus glaucus	Colorado hookless cactus	T		Could occur in coarse soils onsite.

[1] E = Federally endangered; T = Federally threatened. No plant species are listed or protected by State law in Colorado.

[2] BLM = Bureau of Land Management; FS = U.S. Forest Service. Only Federally listed species are protected by law. However, because the Uranium Lease sites are withdrawn from other Federal agencies (e.g., BLM), plant species protected as sensitive by these agencies are also considered in this table.

[3] The plant species listed are known to occur in Montrose County, Colorado. Other regional species are not included. References: BLM Colorado State Director's Sensitive Species List, updated November 20, 2009, last accessed 7/7/2011, available at http://www.blm.gov/pgdata/etc/medialib/blm/co/programs/botany.Par.8609.File.dat/BLM%20CO%20SD%20Sensitive%20Spec.%20List.pdf; Region 2 Regional Forester's Sensitive Species List, last accessed 7/7/2011, available at http://www.fs.fed.us/r2/projects/scp/sensitivespecies/index.shtml; Colorado Natural Heritage Program Rare Plant Guide List, last accessed 7/6/2011, available at http://www.cnhp.colostate.edu/download/projects/rareplants/list.asp?list=master; U.S. Forest Service Species Conservation Assessments, last accessed 7/7/2011, available at http://www.fs.fed.us/r2/projects/scp/assessments/index.shtml; Lyon, Peggy, *Rare Plant Survey of BLM Lands Gateway, Colorado* (2007), last accessed 7/6/2011, available at http://www.cnhp.colostate.edu/download/documents/2007/GatewayFinalReport.pdf.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Lease Tract
Lease Tract with Permitted Mine
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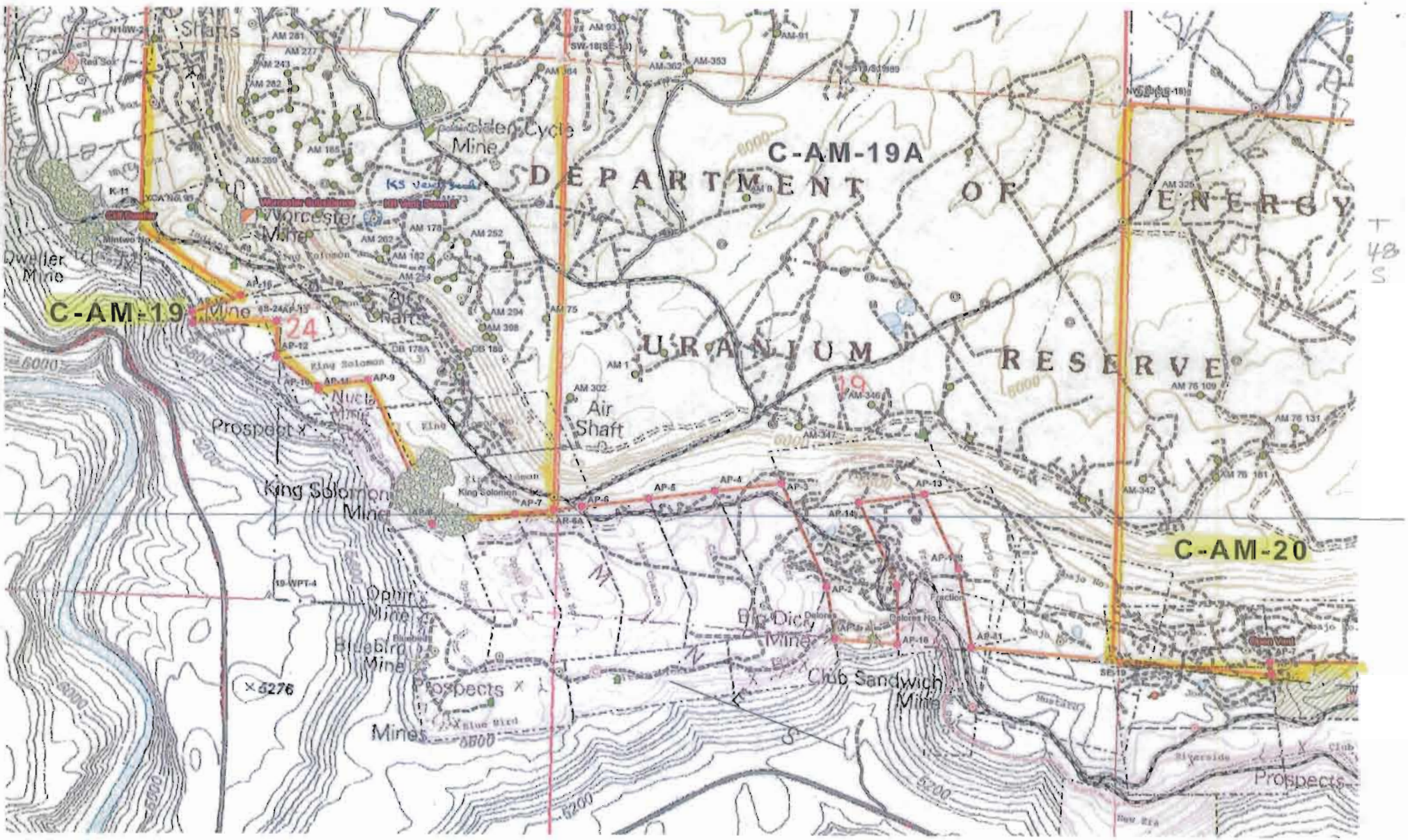
U.S. Department of Energy
S.M. Stoller Corporation
DOE Uranium Leasing Sites
Lease Tract Location Map
Mesa, Montrose, and San Miguel Counties
April 5, 2011
YD010500-02



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Stoller

established 1959

Task Order LM00-505
Control Number 11-0852

July 19, 2011

U.S. Department of Energy
Office of Legacy Management
ATTN: Laura E. Kilpatrick, Esq.
Realty Officer
11025 Dover Street, Suite 1000
Westminster, CO 80021-5573

SUBJECT: Contract No. DE-AM01-07LM00060, S.M. Stoller Corporation (Stoller) National Environmental Policy Act (NEPA)—Environmental Checklist for Energy Fuels Resources Reclamation Projects at Lease Tracts C-AM-19 and C-AM-20

REFERENCE: Task Order LM00-505-07, Uranium Leasing Program

Dear Ms. Kilpatrick:

Enclosed is an Environmental Checklist (EC) that evaluates potential impacts related to proposed reclamation activities of former mine shafts and vents on Lease Tracts C-AM-19 and C-AM-20. Employees of Energy Fuels Resources, the lessee, would use mine waste materials to fill subsided areas associated with the former Cliff Dweller, Worcester, and King Solomon mines on C-AM-19. A grate would be welded to a 20-inch open vent with metal casing on the Abajo Claim No.4 (C-AM-20). No impacts were found associated with these proposed activities.

Based on the results of the EC, Stoller recommends no further NEPA documentation. If the EC is satisfactory, please sign it as the DOE Realty Officer and forward it to DOE Support at the Grand Junction, CO, Office. DOE Support will forward the EC to Tracy Ribeiro, NEPA Compliance Officer, for a final determination.

Please contact me at (970) 248-6056 or Sandy Beranich at (970) 248-6115 if you have any questions.

Sincerely,

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12:37:03 -06'00'

Ed Cotter, Program Lead
Uranium Leasing Program

EC/dko

Enclosure

cc: (electronic)
Sandy Beranich, Stoller
Scott Osborn, Stoller
Project File (E. Cotter)