

**United States Department of the Interior
Bureau of Land Management**

**Decision Record
Environmental Assessment
DOI-BLM-UT-W020-2010-014-EA**

October 2011

Sevier Dry Lake Exploratory Testing

***Location:* Millard County, Utah**

***Applicant/Address:* Bureau of Land Management, Fillmore Field Office**

U.S. Department of the Interior
Bureau of Land Management

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DECISION RECORD
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Sevier Dry Lake Exploratory Testing

It is my decision to authorize the Sevier Dry Lake Exploratory Testing Plan, in and around the Sevier Dry Lake. This plan proposes three activities as part of the exploratory phase of development: Confirmation of Brine Resource, Hydrology Analysis, and a Screening-Level Geotechnical Study. The Bureau of Land Management (BLM) has analyzed this action in an environmental assessment (EA), DOI-BLM-UT-W020-2011-0154-EA, and found that this selected alternative will not result in a significant impact to the environment.

The proponent, Peak Minerals, would conduct proposed brine resource confirmation sampling to develop a better understanding of the distribution of dissolved salts in groundwater occurring within the Sevier Lake potassium lease. Peak Minerals would collect baseline hydrologic data for use in evaluating potential hydrologic impacts that could result from brine removal and freshwater extraction for potential future project operations. Peak Minerals would conduct a screening-level geotechnical study to assess the conceptual design and feasibility of structures that would be built to support the operation of a potash facility.

The selected alternative was presented and analyzed in the above referenced EA subject to the best management practices, mitigation measures, and stipulations to be included with all issued leases. Specific stipulations are described below under the Terms/Conditions/Stipulations section of this Decision Record.

Authorities:

The authority for this decision is contained in 43 CFR 3501.1(a) (1) The Mineral Leasing Act of 1920 as amended (30 U.S.C. 181 *et seq.*).

And

43 CFR 3501.1(d) The Federal Land Management Act of 1976 (43 U.S.C. 1701 *et seq.*) authorizes the management and use of the public lands.

And

43 CFR 3508 Competitive Lease Applications

Compliance and Monitoring:

Compliance with the competitive leasing requirements will be observed by BLM officials during the processes of notifying the public that potash lease parcels are available for leasing through sealed bids. These procedures are public processes.

Monitoring requirements are specified in the stipulations listed under the Terms/Conditions/Stipulations section of this Decision Record. These requirements are intended to maintain impacts at insignificant levels.

Terms / Conditions / Stipulations/Protection Measures:

- 1) **Surface and Ground Water:** Water from development of wells or the performance of pump tests will be clean water that will be directly discharged to the ground surface. No water will be injected into the wells, nor will chemicals or other potential contaminants will be applied to the ground surface or subsurface. Therefore, protection of surface and groundwater is assumed to be limited to erosion and potential surface water sedimentation associated with surface disturbance related to equipment access and drilling and excavation activities. Erosion of soil at water discharge locations will be avoided by ensuring that infiltration of water into the soil is occurring, and that flows are not so high that surface soils are eroded.

All drilling outside of the lakebed will be located near existing access roads to minimize the amount of disturbance of vegetation and soils. Off-road transportation of drill rigs will be limited to times when the soils are reasonably dry to minimize disturbance. These areas will be reclaimed. Water from well development will be directly discharged to the nearest drainage feature. Due to the arid nature of the site and the lack of water, the water will quickly infiltrate into the ground.

On the lakebed, drilling would occur in areas with a wide range of surficial conditions. Drilling and excavation on the lakebed will be done using track-mounted vehicles or other suitable methods which will minimize rutting, natural restoration will occur due to seasonal flooding and re-deposition of sediment. Much of the lakebed is sufficiently solid to allow passage of drilling rigs and geotechnical testing equipment without causing deep rutting, but other portions would have saturated soils or the presence of shallow water. Peak Minerals will restrict movement on the lakebed to established travel lanes to reduce the aerial extent of disturbance. While the lakebed surface would be disturbed from access in the wetted locations, it is expected that following drilling the soils would re-level to their original topographic contours. Natural restoration will occur due to seasonal flooding and re-deposition of sediment. Water from wells or test pits on the lakebed will be discharged directly to the surface where it will evaporate or infiltrate.

- 2) **Fire:** Within the potash lease areas, there is minimal vegetation to support a fire. Along the foothills sufficient vegetation may exist to support a fire. To prevent the possibility of creating a fire, care will be taken to park vehicles and run generators in areas where vegetation does not come into contact with hot engines or mufflers. When conducting "hot" activities, torches, welders, etc. will be limited to areas that are clear of flammable materials or have been cleared of flammable materials. A fire extinguisher and a spotter will be present during any "hot" activities. The spotter's job is to watch for possible ignition of flammable materials while "hot" activities are conducted and to alert others of a potential ignition and extinguishing any ignited material.
- 3) **Fugitive Dust:** Under the reasonable development scenario, ground-disturbing activities on and off lease have the potential to create fugitive dust. Sevier Dry Lake constitutes a large source of dust during high-wind events but, per Utah Division of Air Quality (UDAQ) requirements, any drilling or excavation activities will require a dust-control plan. A Fugitive Dust Control Plan has been developed and is included in **Appendix A**.

4) Cultural Resources:

As outlined in the Programmatic Agreement, cultural inventories will take place prior to ground disturbing activities.

All identified cultural sites will be avoided through project redesign.

No surface disturbing activities may occur until permission is given by the AO.

- 5) Grazing:** Cattle and sheep grazing occur on lands surrounding Sevier Lake; the lakebed itself is not managed for grazing due to lack of forage. The lands around Sevier Lake support very sparse vegetation with poor forage value due to the low elevation, aridity, and proximity to the salty Sevier Lake playa. No significant direct effects to the forage resource would occur. Additionally, reclamation of these areas will be performed, and revegetation stipulations would require a return to near-previous vegetation cover.

- 6) Wildlife:** Disturbance to potential nesting and foraging habitats for migratory birds will be minimized through careful site-selection and installation of the wells. Disturbance will be limited to the drill sites, which will be located near existing roads. Raptors are not likely to be affected by exploration activities because sounds from exploration would be dispersed across the vast area, a prey base is lacking on the lakebed, and the closest mountains that may provide suitable nesting habitat are far from the lake.

Negligible habitat value for large mammals exists on the Sevier Lake bottom, although the Utah Division of Wildlife Resources heritage database identifies substantial to critical habitat value for pronghorn and mule deer around the perimeter of the lake and the surrounding area. However, because the area that will be disturbed is very limited, impacts are expected to be negligible.

- 7) Public Safety:** The project area is bounded on the north end of the lakebed by U.S. Highway 6/50. The project area on the south end of the lakebed is bounded by Blackrock Road. There is likely to be limited recreational and potentially livestock-related traffic near the project areas during the time the exploratory work is performed. During heavy construction activities (drilling and excavation), access to the immediate vicinity of the work will be blocked off using traffic cones and/or barricades to discourage entry. All open test pits will be continuously manned and identified with flagging to prevent traffic on the lakebed from entering the excavation. Test pits will be backfilled after completion of testing.

Under no circumstances will workers be allowed to enter a test pit deeper than 5 feet unless side slopes have been cut back to acceptable U.S. Occupational Safety and Health Administration (OSHA) standards and an experienced geologist or engineer has determined the pit safe to enter. Material excavated from the pit will be piled far enough from the edge of the excavation so that pit stability will not be influenced by the weight of this surcharge.

No chemicals, debris, equipment, or other materials will be left onsite after work has been completed. The site will be cleaned up and will be reclaimed.

PLAN CONFORMANCE AND CONSISTENCY:

The Warm Springs Resource Management Plan (RMP), April 1987 page 49 states,

“Solid Non-Energy Leasable Minerals Prospecting permits would be processed and appropriate environmental protection stipulations attached. Leases would be issued and mining plans evaluated in order to define appropriate stipulations to protect other resource values. Restrictions on non-energy solid leasable mineral activity would be consistent with fluid mineral leasing category restrictions and areas withdrawn from locatable mineral entry as identified above.”

The Sevier Dry Lake Area does not fall within any of the identified categories that are withdrawn from mineral entry and therefore it is available for leasing under the RMP.

Alternatives Considered: One alternative was discussed in the EA in addition to the selected alternative. One of these alternatives discussed in the EA was Alternative B, the no action alternative. Under this alternative the area would not be available for competitive leasing and any rights of way necessary for off-lease activities would not be pursued.

Rationale for Decision:

This decision to approve the Peak Minerals Sevier Dry Lake Exploratory Testing Plan in the Sevier Dry Lake area has been made in consideration of the environmental impacts of the proposal. This was selected over Alternative B because it provides the opportunity to develop a better understanding of the distribution of dissolved salts in groundwater occurring within the Sevier Lake potassium lease. Data from historic exploration indicates a substantial resource of mineral-saturated brine, but the testing data is nearly twenty years old and is not adequate for developing a site-specific operational extraction plan. Brine resource sampling will verify the economic viability of potential commercial production of marketable mineral products at Sevier Lake. The decision is to collect baseline hydrologic data for future use in evaluating potential hydrologic impacts that could result from brine removal and freshwater extraction for project operations. The hydrologic investigations will evaluate groundwater and surface water resources to establish baseline conditions prior to the extraction of brine. These baseline data would be used for BLM’s NEPA analysis that would be required should a commercial minerals extraction project be proposed for development. Conducting the hydrologic survey prior to surface disturbing activities is a condition of the Leasing EA (BLM 2011, Section 2.2.2, *Other Characteristics Common to Alternatives A and C*).

The decision to approve the Exploratory Testing Plan is authorized under the Mineral Leasing Act of 1920 as amended, the Federal Land Management Act of 1976, and The Code of Federal

Regulations Section 43 part 3500, Leasing of Solid Minerals other than Coal and Oil. This action is in conformance with the Warm Springs RMP.

During the preparation of the EA, the public was notified of the proposed action by posting on the Environmental Notification Bulletin Board (ENBB). Scoping was initiated on June 6, 2011 to invite comments on the proposed action and the Sevier Dry Lake Exploratory Testing Plan; the Fillmore Field Office did not receive any public input. A project description was available on the (ENBB) during the scoping period. Native American consultation was initiated during the scoping period; The Utah tribes consulted expressed no concern. In addition the following public comment information is provided:

- The preliminary version of the Sevier Dry Lake Exploratory Testing EA was posted for public comment on the ENBB from August 3, 2011 through September 2, 2011, and was extended through September 9, 2011, at the request of the Southern Utah Wilderness Alliance (SUWA).
- The BLM received 3 public comments in response to this posting on the ENBB. Overall, public comment expressed concerns about air quality (dust emission), visual resources, requests to prepare an Environmental Impact Statement (EIS) instead of an EA, water resources, migratory birds, cultural resources, recreation, and wilderness characteristics.
- A BLM response to the public comments has been prepared and included in the EA as Appendix B.

Appeal Language:

My signature on and approval of this Decision Record authorizes the Sevier Dry Lake Exploratory Testing Plan in the vicinity of Sevier Dry Lake.

In accordance with 43 CFR 3501.20, this authorization is effective the first day of the month after this Decision is signed.

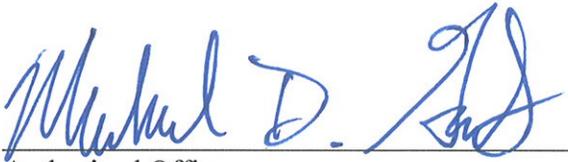
The decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4. Within 30 days of this decision, a notice of appeal must be filed in the office of the authorized officer at the Bureau of Land Management, BLM, Fillmore Field Office, 95 East 500 North, Fillmore, Utah 84631. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the authorized officer.

A copy of the notice of appeal, any statement of reasons and all pertinent documents must be served on the IBLA at the same time it is filed with the authorized officer. In addition, a copy of all such documents must be served on each adverse party named in the decision from which the appeal is taken and on the Office of the Solicitor, U.S. Department of the Interior, Intermountain Region, 125 South State Street, Ste. 6201, Salt Lake City, Utah 84138-1180, not later than 15 days after filing the notice of appeal with the Authorized Officer.

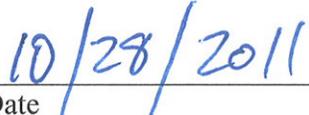
If you wish to file a petition for stay pursuant to 43 CFR Part 4.21(b), the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied;
- (2) The likelihood of the appellant's success on the merits;
- (3) The likelihood of irreparable harm to the appellant or resources if the stay is not granted; and,
- (4) Whether the public interest favors granting the stay.

If a petition for stay is submitted with the notice of appeal, a copy of that petition also must be served on the authorized officer and with the IBLA and each party named in the decision from which the appeal is taken.



Authorized Officer



Date