



State of Utah

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Department of
Environmental Quality

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DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

MAY 30 2014

Jay Vance, P.E.
Manager, Environmental and Permitting
Red Leaf Resources Inc.
10808 South River Front Parkway
Suite 200
South Jordan, UT 84095-5596

Dear Mr. Vance:

Subject: **Construction Permit** for Red Leaf Resources Early Production System (EPS) Capsule
Located in the SE1/4 of Section 30, T. 13 S., R. 23 E., Salt Lake Base and Meridian

On June 24, 2013, the Division of Water Quality (DWQ) received a permit application from Red Leaf Resources for a Utah Ground Water Discharge Permit (UGWDP) for their proposed oil shale mine in the Uintah Basin. The UGWDP application was prepared by JBR Environmental Consultants, Inc., and contained preliminary engineering plans and specifications for the Early Production System (EPS) Capsule. The UGWDP was issued on December 20, 2013. However, a construction permit for the EPS is required in addition to the UGWDP. The EPS Construction Permit Application was submitted on Feb. 18, 2014. That application was reviewed and a meeting was held on February 27, 2014 to discuss additional specifications that were required before a construction permit could be issued. An amended construction permit application was subsequently received on March 6, 2014 and DWQ is issuing this Construction Permit following the completion of a 30-day comment period which ended May 1, 2014.

The following is a summary of the proposed major construction project:

- Early Production System Capsule

The plans and specifications, as submitted, comply with *the Utah Water Quality Rules, (R317, Utah Administrative Code)*. A **Construction Permit** is hereby issued as constituted by this letter, subject to the following conditions:

1. *Any revisions or modifications to the approved plans and specifications must be submitted to DWQ for review and approval, before construction or implementation thereof. Please submit any changes for review and approval directly to Woodrow Campbell, P.E., of the DWQ Ground Water Protection Section.*
2. *A written operations and maintenance manual, containing a description of the functioning of the facilities, an outline of routine maintenance procedures, and all*

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checklists and maintenance logs needed for proper operation of the system, must be submitted and approved before the final inspection and operation of the system.

3. *The approved facilities must not be placed in service unless DWQ has conducted a final inspection, reviewed and approved the As-Built Construction Certification Report, and provided written authorization to place the constructed facilities in service.*

The plans and specifications for this project are stamped and signed by a Professional Engineer currently licensed to practice in the state of Utah. The construction design, inspection supervision, and written construction certification of all work associated with this Construction Permit must be performed by a Professional Engineer licensed to practice in the state of Utah.

This Construction Permit will expire one year from the date of its issuance, as evidenced by the date of this letter, unless substantial progress is made in constructing the approved facilities or the plans and specifications have been resubmitted and the construction permit is reissued. This permit does not relieve you, in any way, of your obligations to comply with other applicable local requirements. You may contact Tricounty Health Department at 435.247.1163 or Scott Hacking District Engineer at 435.247.1177 for further assistance regarding local matters.

Please contact Mr. Campbell at the beginning of construction to allow periodic inspections to be scheduled. Upon completion of the project, a final inspection and approval of the As-Built Construction Certification Report is required before the approval to operate the completed facilities can be issued. Please remain in contact with Mr. Campbell to schedule the final inspection. The Construction Certification Report with final as-built drawings must include test results for the following construction quality assurance and quality control (CQA/QC) elements:

Soil Liners and Fill Materials

- Proctor Curves,
- Soil Classification,
- Field Compaction Testing,
- Moisture Content,
- Subgrade Acceptance Certification.

Flexible Membrane Liner and Geotextile

- Panel Placement Log,
- Trial Seam Test Log,
- Seaming Record,
- Seam Test Record,
- Repair Log,
- As-Built Drawing,
- Manufactures Certification including QA/QC Testing of the Rolls.

Mr. Vance
Page 3

If we can be of further assistance, please contact Mr. Woodrow Campbell at wwcampbell@utah.gov or (801) 536-4353.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Walter L. Baker', written in a cursive style.

Walter L. Baker, P.E.
Director

WLB:WWC:pe

cc: [Scott Hacking, DEQ District Engineer]
[Darrin Brown, TriCounty Health Department]

DWQ-2014-004135

