



# Oil Shale Development

Presented by

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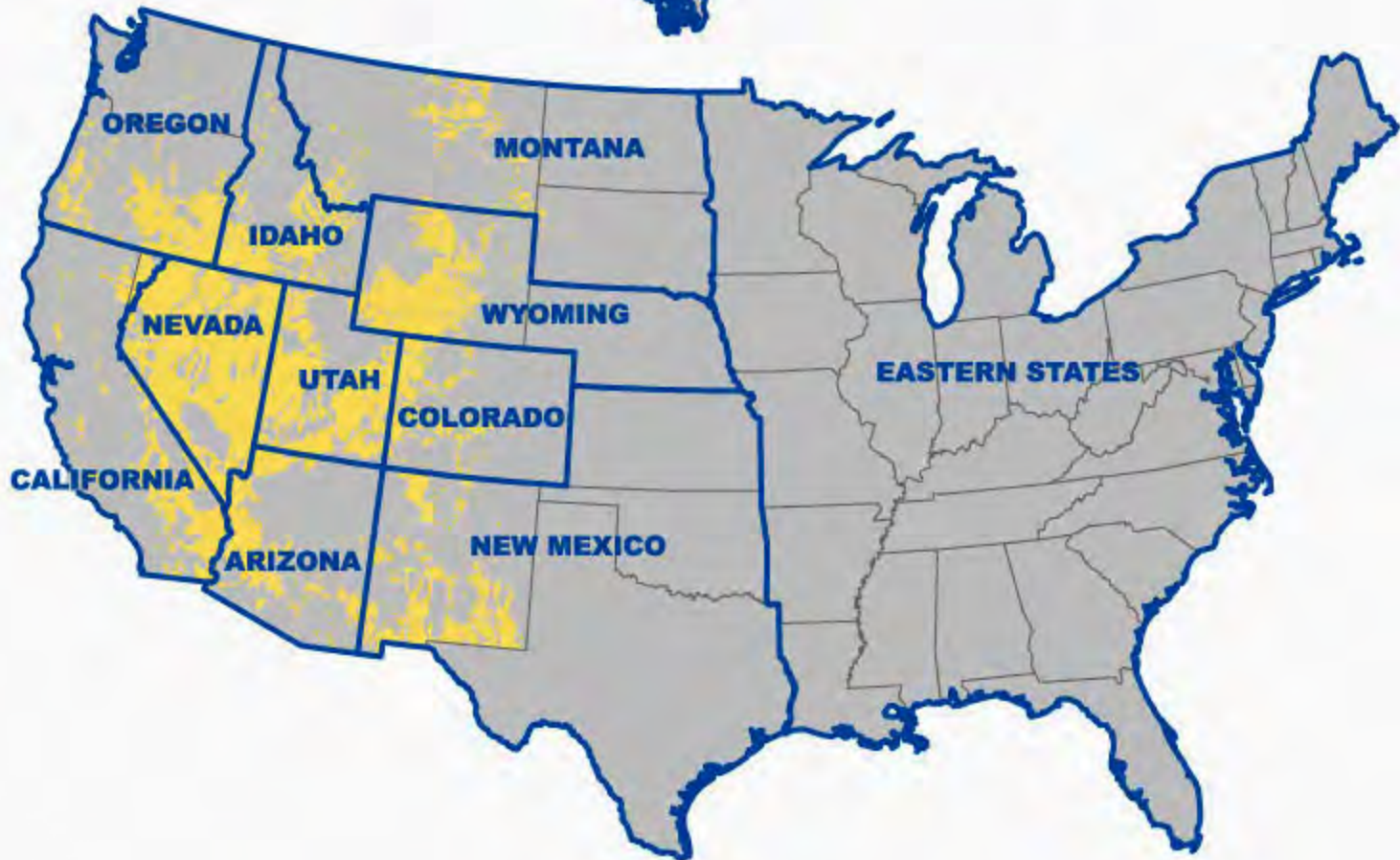
32<sup>th</sup> Annual Oil Shale Symposium  
October 15, 2012



Click on the state jurisdiction to see an enlarged, more detailed jurisdiction map of the state.

For more information on this data, contact Keith Francis at NSTC, [keith\\_francis@blm.gov](mailto:keith_francis@blm.gov) or 303-236-0113.

-  BLM State Jurisdiction
-  BLM-Administered Lands



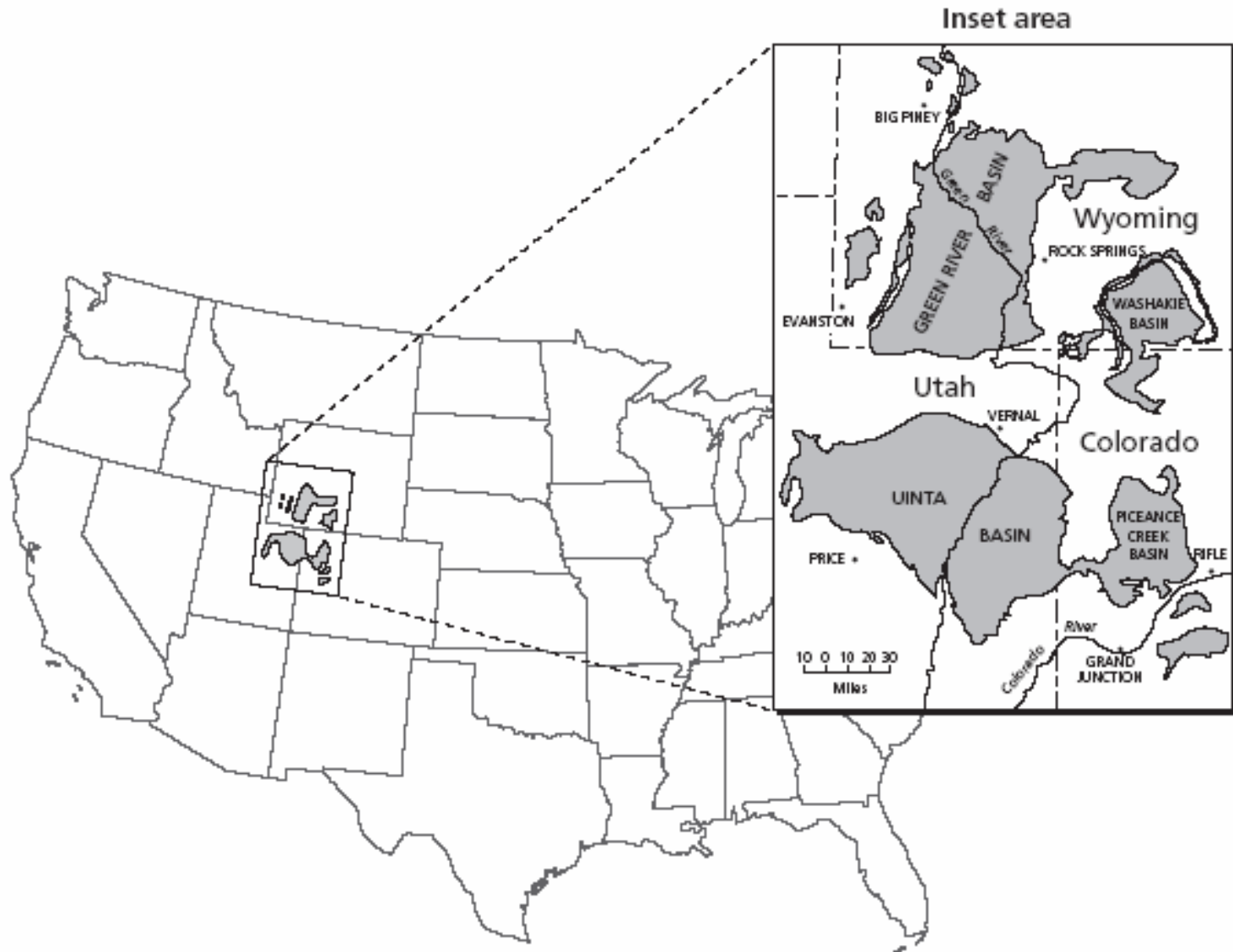
# Public Lands held by BLM and FS



	percentage of total land area	NFS land in million acres (1,000 sq km)	BLM land in million acres (1,000 sq km)
NEVADA	76.1%	5.9 (24)	48.0 (194)
UTAH	70.2%	8.2 (33)	29.9 (121)
IDAHO	60.5%	20.5 (83)	11.9 (48)
OREGON	46.2%	15.7 (64)	15.7 (64)
CALIFORNIA	35.4%	20.8 (84)	15.2 (62)
COLORADO	34.4%	14.5 (59)	8.4 (34)
ARIZONA	32.2%	11.3 (46)	12.2 (49)
WYOMING	29.5%	9.2 (37)	18.4 (75)
NEW MEXICO	29.4%	9.4 (38)	13.5 (55)
MONTANA	26.5%	17.0 (69)	8.0 (32)
ALASKA	25.7%	22.0 (89)	87.0 (352)
WASHINGTON	22.7%	9.3 (37)	0.4 (1.6)

**PUBLIC LANDS HELD BY THE NATIONAL FOREST SERVICE  
AND THE BUREAU OF LAND MANAGEMENT**

# Location of the Green River Formation Oil Shale and Its Main Basins

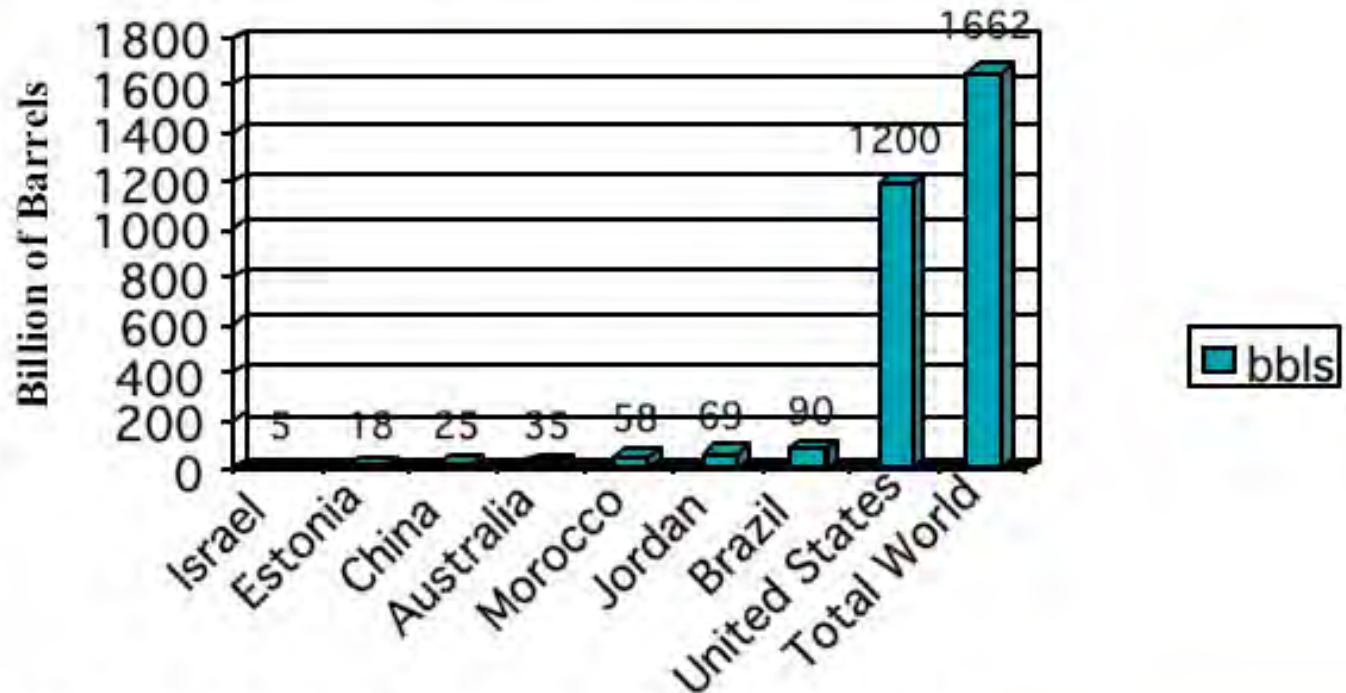


# Oil Shale & Tar Sand



# Global Oil Shale Estimates

## Major World Oil Shale Reserves



*Note: This slide is taken from a November 18, 2003 DOE briefing on the Oil Shale Feasibility Study.*

# Genesis of BLM's Current Oil Shale Program

- Energy Policy Act of 2005
- The President's Energy Policy

# **BLM's Oil Shale Program (3 Components)**

- Research, Development, and Demonstration Leases
- Oil Shale and Tar Sands Regulations
- Planning and Environmental Review



# Authorities for Leasing Oil Shale & Tar Sands

- **Mineral Leasing Act of 1920**

- Provides for leasing specific minerals from public lands

- **Energy Policy Act of 2005**

- Provides for RD&D oil shale leases
- Provides for the commercial leasing of oil shale and tar sands

# Energy Policy Act (EPAct) 2005

## Sec 369 Oil Shale, Tar Sands and Other Strategic Unconventional Fuels

- Sec 369(c) Establish leasing program for Research and Development of Oil Shale and Tar Sands
- Sec 369(d) Complete Programmatic Environmental Impact Statement and Commercial Leasing Program for Oil Shale and Tar Sands
- Sec 369(e) Commencement of Commercial Leasing of Oil Shale and Tar Sands

# 2008 - 2009 Decisions

November 17, 2008

Record of Decision for PEIS

November 18, 2008

Oil Shale Regulations published in  
the *Federal Register*

November 2009

Federal Register Notice published  
for 2nd Round RD&D



National Geographic Magazine 1918

# PEIS and Regulation Lawsuits

Civil Action No. 09-cv-00085-JLK and No. 09-cv-00091-JLK  
(2009)

Colorado Environmental Coalition	Western Resource Advocates
Western Colorado Congress	National Wildlife Federation
Wilderness Workshop	Center for Biological Diversity
Biodiversity Conservation Alliance	The Wilderness Society
Southern Utah Wilderness Alliance	Natural Resources Defense Council
Red Rock Forests	Defenders of Wildlife Sierra Club

# Allegations from Lawsuits

## PEIS Lawsuit

- No Public protest period
- APA – ESA Consultation
- No Protection for lands with Wilderness Characteristics
- No Analysis of Climate Change and Air Pollution Issues

## Regulations Lawsuit

- Royalty Rate violates the EPA 2005 and FLPMA
- Violation of the NEPA for failure to prepare an EIS
- Endangered Species Act Violation

# Settlement Terms - PEIS

- BLM agrees to complete additional planning for oil shale/tar sands leasing in the original 12 plans (CO, UT, WY). ROD to be signed by 12/31/12.
- Areas that would be considered for exclusion are:
  - Areas BLM identifies or may identify in the planning process that contain wilderness characteristics;
  - The whole of Adobe Town “Very Rare or Uncommon” area;
  - Core or priority sage grouse habitat;
  - All ACECs located within the areas analyzed in the original 2008 OSTs programmatic EIS for oil shale/**tar sands**;
  - All areas identified as excluded from commercial oil sale/tar sands leasing in Alternative C of the 2008 OSTs programmatic EIS.

# Settlement Terms - PEIS

- BLM will analyze at least the following three alternatives:
  - Alternative that removes all of the above lands from application for OSTs leasing;
  - Alternative that removes some, but not all, of the lands described above;
  - No action Alternative.
- During the planning process BLM commits to not issue a call for expression of leasing interest for commercial OSTs leases.
- Nothing in the settlement prohibits BLM from soliciting the nomination of parcels to be leased for RD&D in CO, UT and WY.

# Settlement Terms - Regulations

- BLM will publish a notice of proposed rulemaking to address the royalty rate and environmental protection requirements applicable to oil shale leasing, no later than 11/18/12.
- Rule will propose to remove the royalty rate for oil shale pending development by BLM of additional information concerning the costs and profitability of oil shale operations.
- Rule will propose several changes to the environmental protection requirements applicable to oil shale commercial leasing.



# Oil Shale PEIS



# New Planning Initiative

- NOI April 14, 2011
- Scoping April 14 – May 16, 2011
- Draft Published February 3, 2012

# New Planning – PEIS

- Opportunity for BLM to reconsider the 2008 decisions.
- Update based on new information.
- Alternatives developed based on settlement agreement, as well as issues and concerns identified during scoping.
- Effort will continue to be controversial.
- Secretary stated that Department is committed to a robust program of research and development to advance technologies for the recovery of oil-shale resources.

# Purpose and Proposed Action



- **The Purpose:**

To reassess the appropriate mix of allowable uses with respect to oil shale/tar sands leasing and potential development

- **Proposed Action:**

The BLM proposes to amend 10 land use plans in Colorado, Utah, and Wyoming to describe the most geologically prospective areas managed by the BLM in these states where oil shale and tar sands resources are present, and to decide which portions of those areas will be open, and which portion of those areas will be closed to application for commercial leasing, exploration, and development of oil shale and tar sands resources.

# Main Scoping Issues

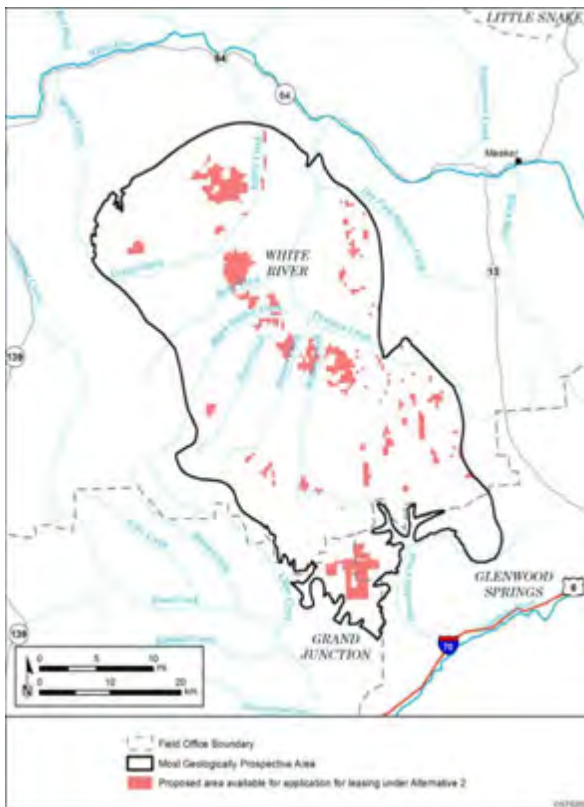
- Air quality
- Water quality and quantity
- Socio-economic concerns
- Ecological concerns
- Cumulative Impacts



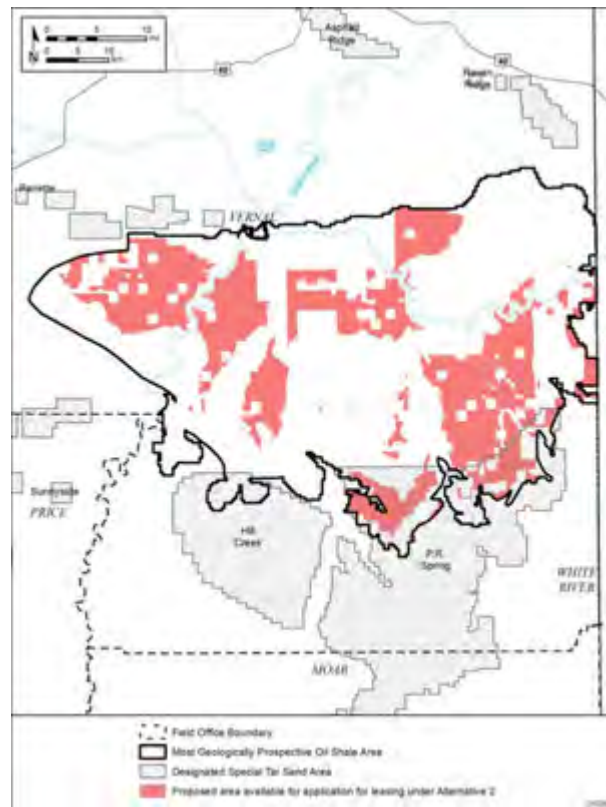
# Comparison Table from Draft PEIS

Alternative	Colorado (Acres)	Utah (Acres)	Wyoming (Acres)	TOTAL (Acres)
1-No Action	346,490	630,971	1,000,453	1,977,914
2(a) & (b)-Conserv.	35,308	252,181	174,476	461,965
3-Research	26,880	5,760	0	32,640
4(a) & (b)-Mod. Dev.	321,000 - 340,100	458,400 - 655,800	692,800 - 967,400	1,472,200 - 1,963,300

# Draft PEIS Preferred Alternative Alternative 2(b)



Colorado – 35,308 acres



Utah – 252,181 acres



Wyoming – 174,476 acres

# PEIS--Next Steps

- Publish NOA for Final PEIS
- Publication of NOA begins the 30-day Protest Period and the 60-day Governor's Consistency Review
- Protest Analysis and Resolution
- Prepare Record of Decision
- Sign Record of Decision



# Oil Shale Regulations



# Oil Shale Regulations

## (November 2008)

Goal was to create a program that is:

- A hybrid of the Fluids and Solid Minerals regulations
- A blend of the best aspects of both programs
- Easy to understand, administer and monitor
- Flexible enough to adjust to new technology and issues as they emerge
- Adequately protective of the environment and other the resources
- Able to prevent land speculation

# Oil Shale Regulations (2008)

Included processes for:

- ✓ Leasing
- ✓ NEPA
- ✓ Bonding
- ✓ Royalty, Bonus Bids, Fair Market Value
- ✓ Diligent Development Milestones
- ✓ Lease Conversion

# Oil Shale Regulations (2008)

## Royalty Rate

5% for first 5 years of production, increasing 1% a year until reaching a rate of 12 1/2%

Lease terms	20 years	Reg.
Rental	\$ 2 acre	Stat.
Max. lease size	5,760 acres	Stat.
Max. allowed acres	50,000 acres entity	Stat.
Minimum Bid	\$1,000 acre	Reg.
Bonding	Full Reclamation	Reg.

# New Regulations

- The Oil Shale Regulation Team has prepared:
  - Draft regulation text revisions
  - Draft Preamble language

# Regulations--Next Steps

- Publish Proposed Rule
  - begins 60-day comment period
- Review and Incorporate Appropriate Comments
- Publish Final Rule

# Oil Shale RD&D



# The Research, Development and Demonstration (RD&D) (1st Round)

- *June 2005* - Call for nominations under FRN
- Received 20 nominations for tracts in Colorado, Utah, and Wyoming
- Screening and review by Interagency team
- Six proposals selected, NEPA completed, 6 leases issued



# Accepted RD&D Proposals (Leases issued 2006 & 2007)

Shell Frontier Oil & Gas 69167
Shell Frontier Oil & Gas 69194
Shell Frontier Oil & Gas 69166
Chevron Shale Oil Co 69165
Oil Shale Exploration, LLC now Enefit American Oil
EGL Resources, Inc. now American Shale Oil, LLC

# Round of RD&D (2<sup>nd</sup> Round)

- November 2009 Federal Register Notice announcing the second round of RD&D
- May 2010 Interdisciplinary Review Team (IDRT) meets to evaluate technical merits of the three applications received and forwards recommendations to BLM Washington Office
- October, 2010 BLM send letter to applicants notifying them of the advancement of their applications
- October, 2012 BLM approves two Colorado EAs

# Proposals that Advanced in 2<sup>nd</sup> Round RD&D

AuraSource-UT

ExxonMobil-CO

Natural Soda-CO

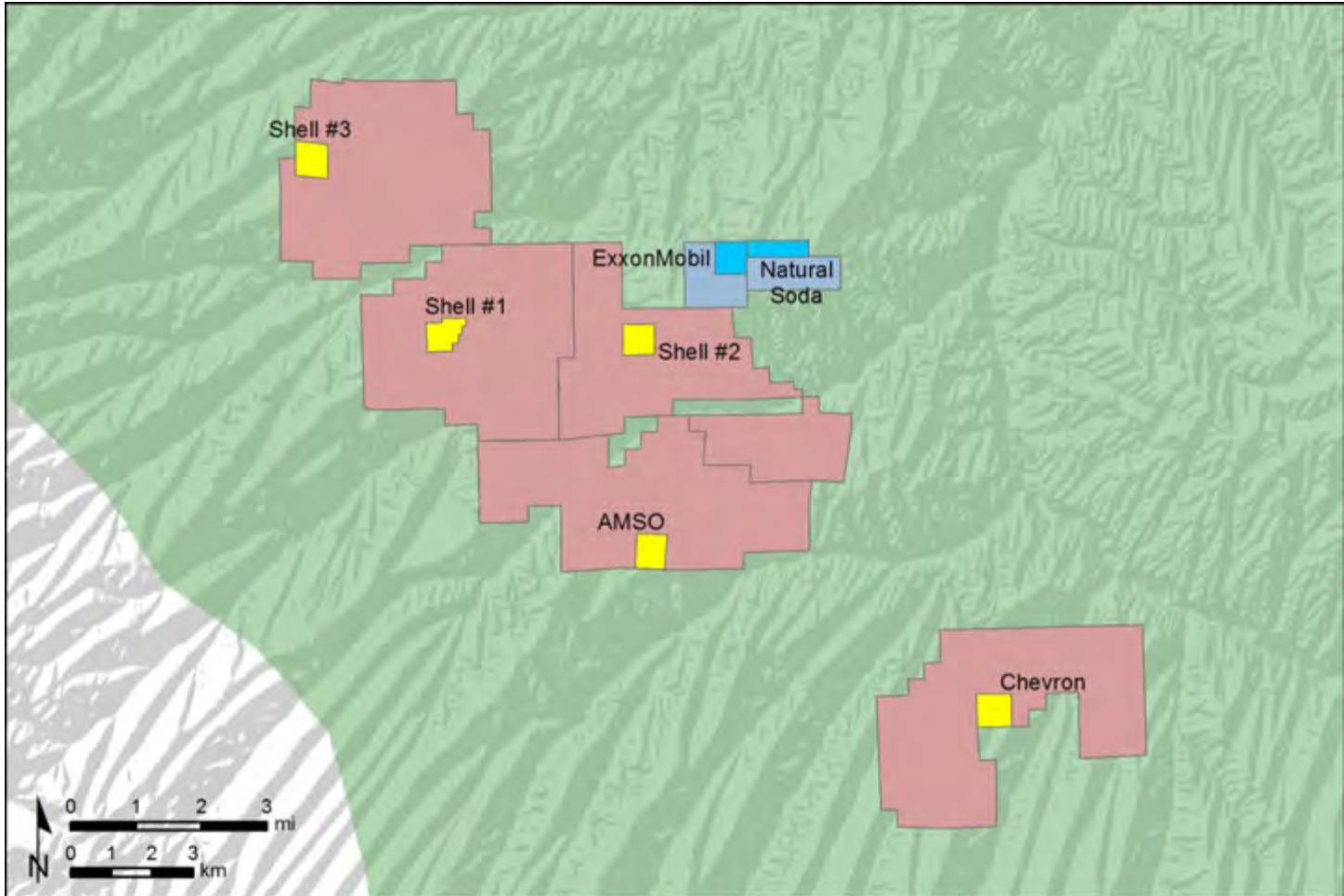
# Oil Shale RD&D Provisions

## RD&D (1<sup>st</sup> Round)

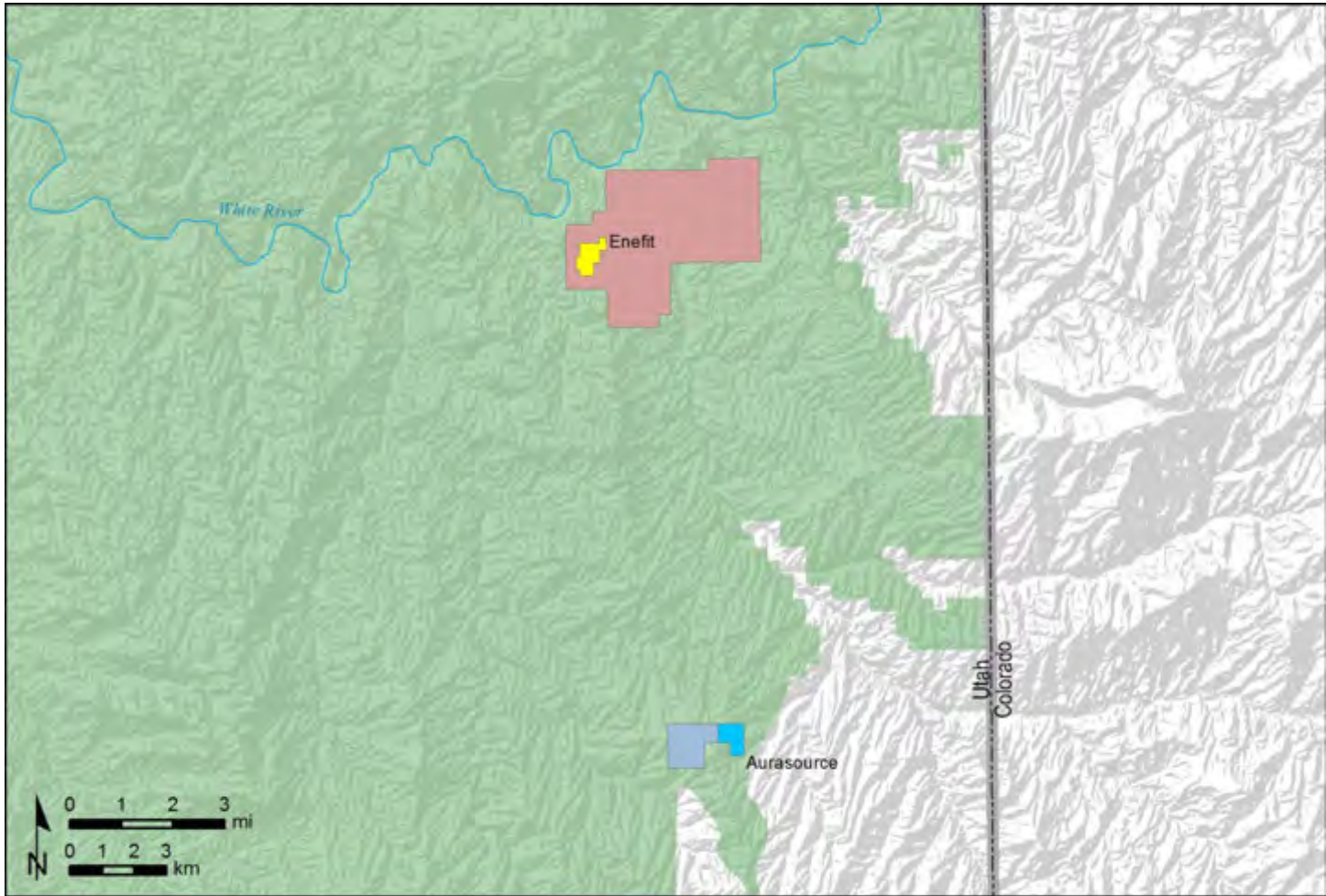
- 160 acre lease with a Preference Right to an additional 4,960 acres
- \$2,000 application fee
- 10 year term with a potential 5 year extension
- Lease addendum determines which set of regulations conversion will occur under, if new regulations are published
- Multiple applications per entity

## RD&D (2<sup>nd</sup> Round)

- 160 acre lease with a Preference Right to an additional 480 acres
- \$6,500 application fee
- 10 year term, with no extension
- Rents and royalties will be paid in accordance with regulations in effect at the time of conversion
- One application per entity



- |   |  |
|---|--|
|  Field Office Boundary             |  Preference Rights Lease Area 2008                |
|  Approved 160-acre RD&D Lease      |  Preference Rights Lease Area 2010                |
|  160-acre RD&D Lease Proposed 2010 |  Most Geologically Prospective Oil Shale Resource |



- |   |  |
|---|--|
|  Field Office Boundary             |  Preference Rights Lease Area 2008                |
|  Approved 160-acre RD&D Lease      |  Preference Rights Lease Area 2010                |
|  160-acre RD&D Lease Proposed 2010 |  Most Geologically Prospective Oil Shale Resource |

# Status of the Six Selected RD&D Projects

- Currently gathering baseline data
- Further engineering study/design
- Acquiring Federal, state and local permits

Thank You

Questions?