

# NEWSLETTER

Serving the Petroleum and Geothermal Community

Nevada Petroleum and Geothermal Society; P. O. Box 11526; Reno, NV 89510

Visit our NPS Homepage: <http://www.nbmq.unr.edu/nps/>

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## Dinner Meeting: Thursday, Apr 4, 2013

**Speaker:** Don French  
Ciannis Exploration, Billings, MT

**Title:** Mississippian Clastic Strata of the Great Basin:  
Refinement and Correlation based on Subsurface Data,  
New Geochemistry, and Petrography

**Place:** Ramada Reno Hotel  
1000 East 6<sup>th</sup> Street, Reno, Nevada

**Cocktail Reception 6:30; Skyline Bar, 14th Floor**

**Hosted by:**



**Dinner Served at 7:00 PM**

**Dinner Costs:**

NPGS Members \$ 20; Non-Members \$23; Students \$10

**Menu:**

**Buffet style; two entrees, side dishes and salad.**

**\*\*NEW NPGS RSVP FORMAT!**

Please RSVP for the April 4<sup>th</sup> Monthly Dinner Meeting by clicking on the following link:

[https://docs.google.com/forms/d/1gYreDyZ3b5zSUDjwMj4qO8\\_T4fc51RthJDYvIviJfr8/viewform](https://docs.google.com/forms/d/1gYreDyZ3b5zSUDjwMj4qO8_T4fc51RthJDYvIviJfr8/viewform)

**SEE CALENDAR Pages 20-21 for upcoming meetings**

► **NPGS Monthly Dinner Meeting – Apr 4, 2013**

Speaker: Don French, Ciannis Exploration, Billings, MT

Abstract:

Mississippian Clastic Strata of the Great Basin: Refinement and Correlation based on Subsurface Data, New Geochemistry, and Petrography

Jim Trexler(1), Don French(2), Jerry Walker(3), Pat Cashman(1)

Mississippian clastic strata are a complex set of lithofacies deposited in response to the Antler orogeny and subsequent collisional tectonic episodes along the western margin of Laurentia. Much of these strata east of the orogenic belt are mudrocks, and are colloquially and collectively known as the Chainman Shale and related units. Correlation and interpretation is made difficult by sparse age control and superficially monotonous appearance.

We present here a new correlation scheme and reorganization of stratigraphy made possible by use of an important upper Mississippian boundary, the Meramecian-Chesterian C2 unconformity. New geochemical results show significant shifts across this boundary. Mudrock petrology confirms important changes at this unconformity throughout the basin. Electric logs in existing well data show the C2 boundary clearly, and wells throughout the basin can be correlated based on this unconformity. Although both lower and upper Mississippian mudrocks can be found throughout the Great Basin, often in contact with one-another, they have significantly different hydrocarbon characteristics.

Our new understanding of Mississippian mudrocks allow reassessment of hydrocarbon potential in the Great Basin, and add new insight to upper Paleozoic tectonic history.

(1) Univ. Nevada - Reno

(2) Ciannis Exploration, Billings, MT

(3) Independent Geologist, Reno

► **About the Speaker – Don French**

No introduction needed! “He just fell off the turnip truck”.

► **Cocktail Reception, Apr 4, Hosted by Barbour Well:**



*Barbour Well, Inc. would like to extend regards and appreciation for all of the attendees at the NPGS meeting who, like ourselves, are committed to the advancement of oil and geothermal energy production throughout Nevada. Please enjoy a complimentary cocktail on us as you receive a ticket when paying for your event. It is our hope to provide you with excellence in oil and geothermal drilling services.*

***Steve Zarcone Business Development***

**Barbour Well Inc., 260 Sunpac Ave. Suite A, Henderson, NV 89011**

**Direct: 805-207-6407, Cell: 661-755-7687, [www.barbourwell.com](http://www.barbourwell.com)**

► **NPGS Welcomes Gold Level Sponsors:**

NPGS extends a thank you to the following Gold Level Sponsors :

**Barbour Well, Inc.**  
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**Boart Longyear**  
**Eagle Exploration**  
**Summit Mudlogging**

See their full page company descriptions in this and/or upcoming newsletters.

► **Sponsors for the Scholarship/Field Trip Fund:**

The Scholarship/Field Trip Fund is another level of sponsorship available to companies and members of NPGS. Member donations will be recognized in the next newsletter. At this time, we want to thank the following companies for their generous donations to this fund:

**Summit Mudlogging**

► **NPGS Officer Elections 2013-2014 (Jun 1 – May 31):**

According to the NPGS Bylaws (ARTICLE II - Officers, SECTION 6. Election of Officers), "... in the event that only one candidate for Vice President/President-Elect, one candidate for Secretary, and one candidate for Treasurer are present on the ballot, then these candidates can be elected by a majority vote of the members eligible to vote at the regularly scheduled meeting ..."

As there is only one candidate for each of these three offices for the 2013-2014 term, a vote will be held at the regularly scheduled April dinner meeting for the election of these officers.

The candidates are:

<b>Vice President/President-Elect</b>	<b>Judy Kareck, Engineer, Lumos &amp; Associates</b>
<b>Secretary</b>	<b>Jerry Walker, Geologist</b>
<b>Treasurer</b>	<b>Steve Foster, Geophysicist/Geologist</b>

► **NEW RSVP FORMAT & DINNER COSTS:**

Please RSVP for the Monthly Dinner Meetings by clicking on the following link:

[https://docs.google.com/forms/d/1gYreDyZ3b5zSUdJwMj4qO8\\_T4fc5IRthJDYviviJfr8/viewform](https://docs.google.com/forms/d/1gYreDyZ3b5zSUdJwMj4qO8_T4fc5IRthJDYviviJfr8/viewform)

**When making your reservation, please keep in mind that the NPGS is charged for every dinner reservation made, even no-shows. If you make a reservation, please plan to pay for the dinner, even if you cannot attend. THANK YOU!**

► ***News from the Legislature - Nevada Senate Bill SB390:***

The following is a summary of the Nevada Senate Bill 390 that proposes to regulate hydraulic fracturing.  
From: Jerry Walker

**Nevada Senate Bill 390 – Regulating Hydraulic Fracturing**  
**Bill Draft Request BDR 46-929**

Senator Tick Segerblom (Democrat, Clark County) introduced SB 390 in the Senate on March 18, 2013 to enact provisions regulating hydraulic fracturing. Assemblymen David P. Bobzien (Democrat, Washoe County) and Skip Daley (Democrat, Washoe County) jointly sponsored this bill. Senator Justin C. Jones (Democrat, Clark County) is the single co-sponsor. The bill has been referred to the Committee on Natural Resources, Senator Aaron D. Ford (Democrat, Clark County), Chair. Senator Segerblom is a member of this committee.

The title of the bill succinctly describes it as *AN ACT relating to natural resources; requiring a person who wishes to engage in hydraulic fracturing to obtain a permit from the Division of Environmental Protection of the State Department of Conservation and Natural Resources; requiring the Division to post certain information on its Internet website concerning hydraulic fracturing; authorizing the Division to charge a fee for issuing a permit and to adopt regulations; providing a penalty; and providing other matters properly relating thereto.*

The key provision of this bill is the requirement to obtain a permit to hydraulically fracture a well from the Division of Environmental Protection (NDEP) ***before*** a well is spudded. This permit is in addition to the Permit to Drill required from the Division of Minerals (NDOM). The application to the NDEP must include:

1. A hydrology report that identifies any source of water possibly affected by the hydraulic fracturing itself or by the disposal of the produced hydraulic fracturing fluids.
2. A seismic study of the region, identifying all faulting possibly affected by the proposed hydraulic fracturing. The study must include the results of any seismic surveys. (As defined, “seismic survey” refers to a reflection survey; a refraction survey also meets the definition.)
3. A plan to monitor the air and water quality of all locations possibly affected by hydraulic fracturing. The monitoring includes baseline measurement prior to drilling and quarterly measurements throughout the operating life of the well, plus three years “after the well ceases to be in operation.”
4. Full disclosure of all chemicals to be used in the proposed hydraulic fracturing, including the product name, chemical formula, and hazardous components listed on material data safety sheets.

In addition, the bill precludes hydraulic fracturing in any well within 2,000 feet of any home, school, or hospital.

The list of chemicals required to be disclosed must be revised quarterly for the entire life of the well, and upon spudding and abandonment of the well.

No known carcinogens may be used in hydraulic fracturing materials.

For an overview of the bill, text, votes, and meetings, go to the Nevada Electronic Legislative Information System (NELIS) web site at: <https://nelis.leg.state.nv.us/77th2013/App#/77th2013/Bill/Overview/SB390>

► ***In Memory; A. Neal Brecheisen***

I am saddened to report that we received word from Neal Brecheisen's wife, Cheryl that Neal passed away on Monday, March 4, 2013.

*From Jerry Walker;*

Neal was a Founding Member of the NPS. He was Vice-President 1988-89, and again in 1990-1991; Treasurer in 1991-1992, and Secretary in 1992-1993. He was the Fieldtrip Chair for the "notable" 1993 field trip, "Structural and Stratigraphic Relationships of Devonian Reservoir Rocks, East Central Nevada". That trip produced what is possibly the best selling NPS pub. He was awarded the Distinguished Service Award in 1994. He was a member of the Logistics and Support Committee for the 1990 field trip, Registration committee for the 1991 field trip, Organizational Support committee for the 1994 field trip (the Carpenter brothers, Co-Chairs), and Trip Consultant for the 1997 field trip. ... and an all around fun person to share some time.

► ***Please join us on LinkedIn!:***

**LinkedIn** provides NPGS the opportunity to update its members with what is happening in the oil, gas and geothermal activities in our region. It also provides an open forum for our group for discussions or even announcements as meetings, field-trips and other activities come up. In addition, **LinkedIn** gives its members the opportunity to network with other professionals that have similar interests as yourself.

If you haven't looked into **LinkedIn** just yet, click on the link below:

[http://www.linkedin.com/groups/Nevada-Petroleum-Geothermal-Society-4535772?trk=myg\\_ugrp\\_ovr](http://www.linkedin.com/groups/Nevada-Petroleum-Geothermal-Society-4535772?trk=myg_ugrp_ovr)

► ***Results BLM Oil & Gas Lease Sale – Mar 12, 2013:***

**Twenty nine parcels were sold at the competitive sale for a sum of \$1.2 million dollars.** Lonewolf Expl (MT) paid the high bonus bid of \$163,840 for parcel #63 and the high bid per acre of \$152 for parcel #65. Other buyers at the sale were Kirkwood O&G (WY), Grant Canyon O&G (Denver), SamOil (CO), World View Property (WA), and RCBB TX (NV). Two parcels were sold at the non-competitive sale; parcels #32 and #33 went to Liberty Petroleum (NY). For more information, including a list of the parcels, see the following link:

[http://www.blm.gov/nv/st/en/prog/minerals/leasable\\_minerals/oil\\_gas/oil\\_and\\_gas\\_leasing.html](http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/oil_gas/oil_and_gas_leasing.html)

► ***Next Nevada BLM Geothermal Lease Sale; Nov 19, 2013:***

**Nominations for this sale must be received by the BLM by April 12, 2013.**

**See the following link for information and forms.**

[http://www.blm.gov/pgdata/etc/medialib/blm/nv/minerals/geothermal/leasesales.Par.76255.File.dat/20131119\\_Geo\\_Sale\\_Nominations.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/nv/minerals/geothermal/leasesales.Par.76255.File.dat/20131119_Geo_Sale_Nominations.pdf)

► ***Next Scheduled BLM Oil & Gas Lease Sale – Jun 11, 2013:***

**41 parcels will be offered in Eureka and Nye Counties, Nevada.**

**1 of the parcels has a pre-sale offer.**

The notice, list of parcels, and shape files are available for this sale at the following link:

[http://www.blm.gov/nv/st/en/prog/minerals/leasable\\_minerals/oil\\_gas/oil\\_and\\_gas\\_leasing.html](http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/oil_gas/oil_and_gas_leasing.html)

► **Apr – Jun 2013 Oil & Gas Lease Sale Schedule:**

Apr 17 New Mexico (BLM)	May 07 Montana (BLM)	Jun 04 Montana (State)
Apr 16 New Mexico (State)	May 07 North Dakota (State)	Jun 11 Nevada (BLM)
Apr 29 Utah (State)	May 07 Wyoming (BLM)	Jun 18 New Mexico (State)
	May 08 California (BLM)	Jun 20 Eastern States
	May 08 Wyoming (State)	
	May 09 Colorado (BLM)	
	May 15 Oklahoma (State)	
	May 16 Colorado (State)	
	May 21 New Mexico (State)	
	May 21 Utah (BLM)	

► **UNR College of Science – Discover Science Lecture Series:**

Information: 775-784-4591; [science@unr.edu](mailto:science@unr.edu)  
Apr 4, 2013 Dr. Steven Strogatz

► **UNR Geological Sciences Seminar Series:**

Mondays 4:00 PM, DMS 103; <http://crack.seismo.unr.edu/geosci/>

Apr 8 Chad Deering, UW Osh Kosh  
Apr 15 Jay Quade, Univ. Arizona  
Apr 22 Darrel Cowan, U of Washington  
Title: "Active, possibly seismogenic low-angle normal faults, Death Valley, California"  
Apr 29 Russell Shapiro  
May 6 George Bergantz, U of Washington  
Title: "Arc Crustal Sections: A Roadmap to Integrating Geochemistry and Geophysics"  
May 13 Chris Mattinson, Central Washington University

► **UNLV 8<sup>th</sup> Annual GeoSymposium:**

April 12-13, Las Vegas, NV  
RSVP form in this newsletter. To attend, send in your form by March 29.  
Information: Jeevan Jayakody, UNLV Dept of Geoscience, (702) 895-4633,  
[jayakody@unlv.nevada.edu](mailto:jayakody@unlv.nevada.edu)

► **Joint PSAAPG/SPE/PSSEPM Conference – Monterey, CA Apr 19-25, 2013:**

*Energy & the Environment – Working Together for the Future*  
Portola Hotel & Spa – [www.portolahotel.com](http://www.portolahotel.com)  
[psaapg.org](http://psaapg.org)

► **AAPG- Rocky Mtn Section 62<sup>nd</sup> Annual Meeting – Sep 22-24, 2013:**

*“Energy Elevated” Hilton Salt Lake City Center* [www.rmsaapg2013.com](http://www.rmsaapg2013.com)  
**EXTENDED DEADLINE FOR ABSTRACTS: April 10, 2013**

► **AAPG-Education Calendar:**

Upcoming AAPG Field Seminars: <http://www.aapg.org/education/fieldseminars/index.cfm>

## AAPG Rocky Mountain Section

Salt Lake City - Hilton

September 22-24, 2013

### *Call for Papers*

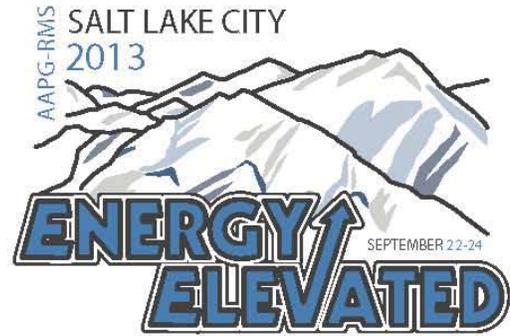
To submit an abstract for an oral, poster, or core poster presentation go to

[rmsaapg2013.com](http://rmsaapg2013.com)

and click on "SUBMIT ABSTRACT"

Contributions from young professionals and students are especially welcome

Deadline for abstracts is **March 29, 2013**



### *Technical Program Highlights*

- Lacustrine basins: Modern and ancient
- Shale/tight gas and oil plays
- Great oil/gas fields of the Rocky Mtns.: A historical perspective
- Carbon capture, utilization, and storage
- Structure, stratigraphy, and source rocks of the Rockies
- Gas marketing in the Rockies: Forum discussion
- Emerging oil shale and oil sand resource plays
- Geologic and environmental aspects of hydraulic fracturing

### *Field Trips*

- Lacustrine microbial carbonates: Modern and ancient
- San Rafael Swell and Henry Mtns. Basin
- Wasatch Mountains: Scenic trip through time
- Nine Mile Canyon geology: Green River and Wasatch Fms.



### *Other Convention Events*

- All-convention luncheon: Geology of Mars, Utah analogs, and the latest discoveries of the Curiosity rover  
*Dr. Rebecca Williams, Planetary Science Institute*
- Several pre- and post-meeting short courses
- Night at the new Natural History Museum of Utah
- Guest hospitality suite and three days of special activities

*Registration opens in Spring 2013*

*For convention details visit:*  
[rmsaapg2013.com](http://rmsaapg2013.com)

*Hosted by the  
Utah Geological Association*

April 19-25, 2013  
2013 SPE Western Regional /  
Pacific Section AAPG  
Joint Technical Conference  
Energy & the Environment  
Working Together for the Future  
Monterey, CA



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HERVE GROSS - SPE  
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**POSTER SESSIONS**  
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**Tentative Technical Program  
PSAAPG/PS-SEPM**

- Reviving old giants and new potential in mature basins
- Evolving Models of Deep Water Deposition
- Fluvial and shallow-marine depositional systems: insights from outcrops and subsurface prediction
- Opening up the west: new and overlooked opportunities in unconventional reservoirs
- Faults, folds, transforms and terranes of Western North America
- Marine Geology of the Pacific Margin (modern and Ancient) -- dedicated to Bob Garrison
- Western North America earthquake hazards: what's shakin'
- Energy and the environment
- Landscape / Seascape Evolution
- California Turbidites
- What's new in the Sacramento Valley
- Geothermal Energy: A hot topic
- Arctic energy opportunities: from the Cook Inlet to the North Slope and beyond
- Sediment routing in Western North American
- Undergraduate Research Poster session



**Tentative Field Trips**

1. Hydrocarbon Migration Systems: Injectites, Bituminous Sands, and Gas Seeps
2. Retracing the Events of the 1906 San Francisco Earthquake and Fire
3. Convergent Margin Tectonics across Central California Coast Ranges -- Pacheco Pass
4. Oceanography Field Trip -- Moss Landing Marine Labs
5. Geology of the Point Lobos Reserve
6. Monterey Formation Outcrops
7. California Turbidites
8. Other

**SPEWR/PSAAPG/PS-SEPM  
Tentative Short Courses**

1. Streamline simulation,
2. Numerical methods in simulation
3. Modern well test analysis,
4. Thermal methods and in-situ combustion.
5. Reserve booking
6. Carbon sequestration & storage
7. Sequence Stratigraphy for students
8. Carbonate Stratigraphy
9. Formation Evaluation
10. Image log interpretation
11. Geocellular modeling
12. Microseismic
13. Monterey core workshop
14. Monitoring programs for fracking

► **News from Nevada Bureau of Mines & Geology:**

From: Charlotte Stock

**Major mines of Nevada 2011 – new**

P23 - Major mines of Nevada 2011: Mineral industries in Nevada's economy, by Mike Visher and Alan Coyner, 2012, 28 pages, \$3.00 or free on the Web:

<http://www.nbmgs.unr.edu/sales/pbsdtls.php?sku=P-23>

This twenty-third issue of an annual series of reports on the major mines and mills in Nevada lists the names and addresses of operators, numbers of employees, and annual production in 2011. Map locations of all major mines are shown and an overview of mineral production and its effect on Nevada's economy is presented.

**Jon Price receives national mining award**

Congratulations to Jon Price for winning the MMSA Gold Medal Award!

“Jonathan Price, former director of the Nevada Bureau of Mines and Geology at the University of Nevada, Reno and state geologist emeritus, received a Gold Medal from the [Mining and Metallurgical Society of America](#) (MMSA) at their annual conference Feb. 25. The highest honor awarded by the society, the Gold Medal is presented to individuals who have made significant contributions to the mineral industry.”

"The leadership and vision of Jonathan Price has built one of the finest organizations in the United States," Jeff Thompson, dean of the College of Science, said about Prices's work in the Bureau of Mines and Geology. "He richly deserves the prestigious Gold Medal Award from the Mining and Metallurgical Society of America and we are very proud of his accomplishments." (excerpts from *Nevada Today* article by Stephany Kirby; March 4, 2013).

Read the entire story here: <http://www.unr.edu/nevada-today/news/2013/jon-price-gold-medal>

**New 43-101 Report Map Service for Mineral Properties**

[http://gisweb.unr.edu/report\\_43101\\_1/](http://gisweb.unr.edu/report_43101_1/)

The Nevada Bureau of Mines and Geology is pleased to announce a new *43-101 Report Map Service*. Creation of map services has been an important component of NBMG's efforts to modernize and make data that are relevant to mineral exploration and land use decisions readily available to the public. The *43-101 Report Map Service* shows the locations of 43-101 reports in Nevada. Clicking on a location point with the "Identify" tool will result in links to the report(s). Clicking the link will result in a new window showing the report as a PDF file.

These 43-101 reports are publically available technical reports that follow a codified set of rules and guidelines for reporting and displaying information related to mineral properties owned by, or explored by, companies which report these results on stock exchanges within Canada. The map is not an exhaustive list of all the 43-101 reports completed in Nevada. NBMG will periodically update the map with additional reports, both old and new.

We hope you find this service of use. Please contact us with feedback. More similar map services relevant to mineral exploration will be released later this year.

<http://www.nbmgs.unr.edu/Mapping/InteractiveMaps.html>

John Muntean ([munteanj@unr.edu](mailto:munteanj@unr.edu)), Gary Johnson ([glj@unr.edu](mailto:glj@unr.edu))

## Upcoming talks and other events – **now on NBMG website**

Can't remember where and when that talk is that you wanted to attend?

We have reactivated the Google events calendar that you can find on the right side of the NBMG home page.  
<http://www.nbmj.unr.edu/Calendar.html>

### Ordering information:

You can **place an order** for other publications or check for shipping charges through our shopping cart at  
<http://www.nbmj.unr.edu/Departments/PubSales/PubSales.html>

**Subscribe** to our blog: <http://nbmj.posterous.com>

*Charlotte Stock*

NBMG Publication Sales, University of Nevada, mailing address for US Mail, Fed Ex, and UPS:  
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**Gold Level Sponsorship Bio** The NPGS thanks Summit Mudlogging Services for becoming a Gold Level Sponsor!



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#### For more information contact:

Cody Unger  
Business Development Manager  
605 Union Pacific Way, Elko, NV  
Tel: (775) 738-1980  
Mobile: (775) 753 3076

**Gold Level Sponsorship Bio** The NPGS thanks Lumos and Associates, Inc. for becoming a Gold Level Sponsor!



### Civil Engineering

- Streets and Highways
- Site Development and Subdivisions
- Traffic Studies
- Airports
- Geographic Information Systems (GIS)
- Hydrology, Hydraulics and Storm Drainage
- Erosion Control & Water Quality BMPs
- Water Systems, Wells and Tanks
- Water Rights
- Wastewater Treatment Plants & Systems

### Geotechnical Engineering

- Geotechnical Investigations
- Foundation Investigations
- Geologic Hazard Investigations
- Fault Studies
- Liquefaction Analyses

### Planning

- Site Analysis and Planning
- Land Use and Master Plans
- Redevelopment and Revitalization Strategies
- Transportation and Transit Planning
- Public Presentations

### Landscape Architecture

- Parks and Recreation
- Streetscapes and Community Design
- Destination Resorts and Hospitality
- Commercial and Institutional Sites

### Surveying

- Property and ALTA Surveys
- Parcel and Subdivision Maps
- Topographic Surveys
- GPS Capabilities
- Construction Staking

### Construction Services

- Construction Administration & Management
- Construction Inspection
- ICBO Special Inspection for Reinforced Concrete, Masonry, Structural Steel/Welding & Fireproofing

### Materials Testing

- Soils and Aggregates
- Portland Cement Concrete
- Asphalt Concrete
- Non-destructive Weld Testing

## LUMOS' CAPABILITIES



9222 Prototype Drive, Reno, NV 89521  
Tel: 775.827.6111 Fax: 775.827.6122  
[www.lumosengineering.com](http://www.lumosengineering.com)

## GOLD LEVEL Sponsorship Bio

The NPGS extends a warm thank you to Barbour Well, Inc. for becoming a Gold Sponsor.

### Company Profile



[www.barbourwell.com](http://www.barbourwell.com)

Barbour specializes in drilling oil production wells and large diameter geothermal wells that are high-yield and high-quality in support of both the oil and geothermal industries throughout Nevada, California, Utah, New Mexico, Idaho and the Western United States.

Over three decades of geophysical logging, water well design, work-over/stimulation, down-hole video services, and drilling production wells makes Barbour ideally suited in the expertise for successful oil or geothermal projects. Barbour has an extensive background in geophysics unique to the offerings of most drilling organizations.

Barbour maintains current C23 and A6 Contractor's Licenses in Nevada, a C57/D09 Contractor's License in California, and current drilling Contractor's Licenses in New Mexico and Utah, offering both direct mud rotary (conventional) drilling (vertical and directional) as well as air-rotary foam drilling for specialized applications. Wire-line services are also available in most of the Western United States.



Cost-effective operations and innovative techniques designed to be used by the Oil and Geothermal Industries have



provided new avenues of possibilities for future project planning. Barbour is confident that their continued commitment to the oil and geothermal communities will result in the increased availability of much needed renewable energies within the United States. For additional questions regarding company info, pricing or rig availability please contact:

**Steve Zarcone**,  
*Business Development*  
**Barbour Well Inc.**  
260 Sunpac Ave, Suite A  
Henderson, NV 89011  
(805) 207-6407 Direct  
(661) 755-7687 Cell  
[szarcone@barbourwell.com](mailto:szarcone@barbourwell.com)



# APPLICATION FOR MEMBERSHIP

Name \_\_\_\_\_

Occupation/Title \_\_\_\_\_

Company/Affiliation \_\_\_\_\_

Work Address \_\_\_\_\_  
Street City State Zip Code

Residence Address \_\_\_\_\_  
Street City State Zip Code

Preferred Mailing Address?  WORK -or-  RESIDENCE

Work Phone \_\_\_\_\_ Residence Phone \_\_\_\_\_ Fax \_\_\_\_\_

Mobile Phone \_\_\_\_\_ Email \_\_\_\_\_

Member of AAPG?  YES -or-  NO

Professional References – list two references with phone numbers and addresses

1) Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_  
Street City State Zip Code

2) Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_  
Street City State Zip Code

Education – list colleges and universities attended, degree(s) received, and date of degree(s) (OPTIONAL)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Membership Type**

- ACTIVE \$20.<sup>00</sup>/year  
 ASSOCIATE \$15.<sup>00</sup>/year  
 STUDENT \$10.<sup>00</sup>/year  
 LIFE \$200.<sup>00</sup> (one-time payment)

Signature \_\_\_\_\_

Date \_\_\_\_\_

Please make check payable to:

**Nevada Petroleum Society**  
P.O. Box 11526  
Reno, NV 89510-1526

**DO NOT COMPLETE**

For NPS Membership Committee Signatures Only

\_\_\_\_\_  
\_\_\_\_\_

## Nevada Petroleum and Geothermal Society – Publication List 2012



### SPECIAL VOLUMES

- NPS 1** Oil Fields of the Great Basin (1994) R.A. Schalla and E.H. Johnson, editors, 31 papers on regional and field specific geology, 5 plates, soft cover with plastic comb binding, 380 p. \$65.00
- NPS 2** Membership Directory (only available **free on the Web** at <http://www.nbmj.unr.edu/nps/membershipdir.htm>)
- NPS 15** TerraScan's Geologic Map of the Eastern Great Basin, Nevada and Utah (1978, rev. 1987) compiled and edited by E.L. Howard, 3 sheets (includes cross-sections) **\$20.00/NPS or \$25.00/non-NPS order by phone only for discounted price of \$5.00**
- NPS 21** Carboniferous–Permian (Late Paleozoic) Hydrocarbon System, Rocky Mountains–Great Basin Region, U.S., Major Historic Exploration Objective (2001, updated 2003) J. Peterson, RMAG Open-File Report on CD only; 54 p., 45 illustrations, CD **\$15.00**

### FIELD TRIP GUIDEBOOKS

- NPS 3** Oil Fields, Production Facilities and Reservoir Rocks of Northern Nye County, Nevada (1989) compiled by W.J. Ehni and D.M. Evans, 8 abstracts and papers, 30 p. (xerox copy only – unbound) \$8.00
- NPS 4** Oil Fields and Geology of the Pine Valley, Eureka County Area, Nevada (1990) D.M.H. Flanigan, L.J. Garside, and M. Hansen, editors, 15 papers and abstracts, 74 p. (xerox copy only – unbound) **\$15.00**
- NPS 5** Geology of White River Valley, the Grant Range, Eastern Railroad Valley and Western Egan Range, Nevada (1991) D.M.H. Flanigan, M. Hansen, and T.E. Flanigan, editors, 10 papers and abstracts, 74 p. **\$15.00**
- NPS 6** Structural Geology and Petroleum Potential of Southwest Elko County, Nevada (1992) J.H. Trexler, Jr., T.E. Flanigan, D.M.H. Flanigan, M. Hansen, and L.J. Garside, editors, 9 papers, 2 plates, 96 p. **\$25.00**
- NPS 7** Structural and Stratigraphic Relationships of Devonian Reservoir Rocks, East Central Nevada (1993) C.W. Gillespie, editor, 15 papers, 3 plates, 203 p. **\$33.00**
- NPS 8** Dating of Pre-Tertiary Attenuation Structures in Upper Paleozoic and Mesozoic Rocks and the Eocene History in Northeast Nevada and Northwest Utah (1994) C.H. Thorman, C.J. Nutt, and C.J. Potter, editors, 11 papers, 125 p. on CD-ROM only **\$25.00**
- NPS 9** Structural and Stratigraphic Investigations and Petroleum Potential of Nevada, with Special Emphasis South of the Railroad Valley Producing Trend (1994) S.W. Dobbs and W.J. Taylor, editors, two volumes bound as one, 13 papers, 22 plates, 281 p. **\$40.00**
- NPS 10** Mississippian Source Rocks in the Antler Basin of Nevada and Associated Structural and Stratigraphic Traps (1995) M.W. Hansen, J.P. Walker, and J.H. Trexler, Jr., editors, 16 papers and 7 abstracts, 166 p. **\$25.00**
- NPS 11** Cenozoic Structure and Stratigraphy of Central Nevada (1996) W.J. Taylor and H. Langrock, editors, 11 papers, 122 p. **\$25.00**
- NPS 12** The Roberts Mountains Thrust, Elko and Eureka Counties, Nevada (1997) A.J. Perry and E.W. Abbott, editors, 4 papers, 2 abstracts and reference papers/abstracts, 86 p. **\$25.00**
- NPS 13** Hydrocarbon Habitat & Special Geologic Problems of the Great Basin (1998) D.E. French and R.A. Schalla, editors and co-chair **\$25.00**
- NPS 14** Cenozoic Geology of the Northern Colorado River Extensional Corridor, Nevada and Arizona: Economic Implications of Extensional Segmentation Structures (1999) J.E. Faulds, editor, 183 p., 3 color plates **\$35.00**
- NPS 16** Structure & Stratigraphy of the Eureka, Nevada Area (2001) Marilyn S. Miller and Jerome P. Walker, editors, 108 p., 11 color plates, book and CD **\$40.00** (NPS16), book only **\$30.00** (NPS16b), CD only **\$30.00** (NPS16c)
- NPS 17** Detachment and Attenuation in Eastern Nevada and its Application to Petroleum Exploration (2002) W. Ehni and J. Faulds, editors, 163 p., book & CD **\$40.00** (NPS17), book only **\$35.00** (NPS17b), CD only **\$15.00** (NPS17c)
- NPS 18** Oil, Gas, and Geothermal Occurrences in Northwestern Nevada (2003) S. Foster, editor, 102 p. **\$25.00**
- NPS 19** Megabreccias and Impact Breccias of East Central Nevada (2004) C.W. Gillespie and S. Foster, editors **\$35.00**
- NPS 20** Great Basin Paleozoic Carbonate Platform: Facies, Facies Transitions, Depositional Models, Platform Architecture, Sequence Stratigraphy, and Predictive Oil and Gas Reservoir and Mineral Host Models (2006) H.E. Cook and J.J. Corboy, 129 pages **out of print** (report from USGS Open-File Report 2004-1078, **free on Web** at <http://pubs.usgs.gov/of/2004/1078/>)
- NPS 22** Geology, Geothermal Resources and Petroleum Exploration of Neogene Basins in the Reno, Nevada Area (2007, 2nd ed., includes two papers not in 1st ed.) S. Limerick, editor, 7 papers, 3 reprints, and roadlog, 140 p. **\$25.00**
- NPS 23** Sedimentology and Tectonic Setting of the Late Cretaceous to Eocene Sheep Pass Formation in the Southern Egan Range (2008) P. Druschke, trip leader; J. Trexler, Jr., editor **\$25.00**

These publications are only available from the Nevada Bureau of Mines and Geology (NBMG).

**NBMG contact information:** Phone: (775) 682-8766, Fax: (775) 784-6690

Web: <http://www.nbmj.unr.edu>

Web: <http://www.nbmj.unr.edu/nps/>

# Oil and gas resources from NBMG

The following publications are available from the Nevada Bureau of Mines and Geology. **NBMG publications that are underlined are also available free on the Web at <http://www.nbmq.unr.edu/>.**

**Oil and gas information page on the NBMG website**  
<http://www.nbmq.unr.edu/Oil&Gas/index.html>

## Bulletins

**B104** Oil and gas developments in Nevada: **Garside, Hess, Fleming and Weimer (1988), \$15.00, for updates, see OF01-7, OF04-1, and M162**

## Educational Series

E-6 **Oil and gas in Nevada** (Student book for grades 4-8, 23 pages) \$3.45  
E-24 **Nevada oil: Division of Minerals** (Brochure, 1996) free

## Lists

L-8 **List of oil and gas wells drilled in Nevada since 1907:** Hess, Davis, and Boldi (2001, updated 2003) *superseded by OF04-1, see also OF01-7*  
L-12 **Nevada oil and gas well catalog (NVOILWEL),** *superseded by OF04-1, see also OF01-7*  
Complete list of Nevada oil and gas well exploration data, 1906-present. Listed logs and cuttings are housed at NBMG. Shows, geologic tops and tests are given when available.

## Maps

**M162** **Petroleum data map of Nevada:** Garside and Hess (2007), 1:1,000,000, \$15.00

## Mineral Industry Series

The Nevada Mineral Industry is **published annually**, beginning in 1979. Each volume has a **section on oil and gas** in Nevada. Most of these reports are available *free on the Web* at <http://www.nbmq.unr.edu/>.

## Open-File Reports

OF83-5 **Nevada oil shale:** Garside, 10 pages, \$4.00 (for more oil shale information, see also USGS MF-1546 and MF-2091)  
OF86-13 **Nevada petroleum production statistics, 1954-1986:** Hess, Loomis and Garside, 14 pages, \$5.00  
**OF92-5** **Nevada oil and gas source-rock database:** Hess, compilation of source-rock analyses performed on cuttings samples taken at varying depth intervals from oil and gas exploration wells in Nevada up to 1992, complete print-out, \$20.00  
OF96-6c **Nevada oil and gas wells, 1907-1996:** 1:1,000,000 color digital map of Nevada showing major roads, county boundaries, and locations of oil wells drilled since 1907, original printout, \$20.00, *see also OF01-7, M162*  
**OF01-7** **Nevada oil and gas well database map:** Hess, CD and 4 page text, \$15.00  
Contains the following: L-12; updated OF96-6, partial; L-8; B104 text; digital base layers of Nevada data in Shapefile and Arc/Info export file format designed for use at scale 1:1,000,000 (county, towns, roads, USGS topo boundaries for 1:100,000 and 1:24,000, Township and Range); georeferenced raster graphic of the Nevada state base map, B&W, scale 1:1,000,000; 18 USGS digital raster graphic maps (DRG), 1:250,000-scale, topo maps in tiffw format  
OF00-2 **Hydrocarbon assessment of the Yucca Mountain vicinity, Nye County, Nevada:** French, 78 pages and 4 plates, \$44.40  
**OF04-1** **Nevada oil and gas well database (NVOILWEL):** Hess (2004), \$86.40 for photocopy  
**OF07-7** **Assessment of the potential for carbon dioxide sequestration with enhanced oil recovery in Nevada:** LaPointe, Price, and Hess (2007), 24 pages, \$7.20  
**OF11-2** **Qualitative petroleum potential map of Nevada:** Garside and Hess (2011), plate 1:1,000,000 and text  
**OF11-6** **Oil and gas well information for Nevada – 2011 update:** Hess, Henson, David, Limerick, Siewe, and Niles; portable hard drive, 105 GB, 9643 files, \$115; free on web at <http://www.nbmq.unr.edu/Oil&Gas/NVWellInfo.html>

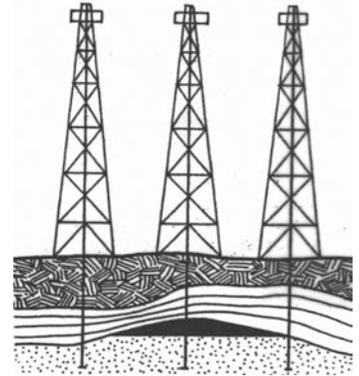
## Reports

**R51** **Preliminary assessment of the potential for carbon dioxide disposal by sequestration in geological settings in Nevada:** Price and others (2005), CD-ROM or paper copy, 35 pages, \$15.00  
**R52** **Assessment of the potential for carbon dioxide sequestration by reactions with rocks in Nevada:** Sturmer, LaPointe, Price, and Hess (2007) \$22.00 paper

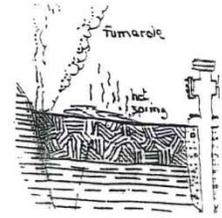
## USGS

Assessment of undiscovered oil and gas resources of the Eastern Great Basin Province, 2005, Fact Sheet  
**FS-2005-3053, free at <http://pubs.usgs.gov/fs/2005/3053/>**  
**Basin and Range Carbonate Aquifer System Study:**  
<http://nevada.usgs.gov/barcass/data.htm>

Ordering information for Nevada Bureau of Mines and Geology  
Sales office located at Great Basin Science Sample and Records Library, 2175 Raggio Parkway, Reno, NV 89512  
Phone: (775) 682-8766 Fax: (775) 784-6690 Web: <http://www.nbmq.unr.edu>



# Geothermal resources in Nevada



## Geothermal information page on the NBMG website

<http://www.nbmг.unr.edu/Geothermal/index.html>

The following publications on geothermal resources are available from the Nevada Bureau of Mines and Geology. NBMG items that are underlined are available **free on the Internet** and can be viewed at <http://www.nbmг.unr.edu/>.

### Bulletins

- B65 Mineral and water resources of Nevada: Cornwall (1964) pp. 267-269, \$7.00
- B89 Geology and mineral deposits of Pershing County, Nevada: Johnson (1977) pp. 104-106, \$21.00
- B91 Thermal waters of Nevada: Garside and Schilling (1979) \$22.00, *for update see L-5*
- B97 Discovery and geology of the Desert Peak geothermal field—a case history: Benoit, Hiner, and Forest (1982), \$15.00 (*see also OF03-27*)
- B99B Mineral resources of northern Nye County, Nevada: Kleinhampl and Zion (1984) pp. 37-38, \$19.00

### Educational Series

- E-7 Geothermal resources in Nevada: Student reading/activity book for grades four through eight, 27 pp., \$4.05
- E-15 Nevada geothermal electric power production, brochure (1992) 2 pp., \$0.60
- E-35 Major mines, oil fields, and geothermal plants in Nevada
- E-46 Taking the pulse of the Earth
- E-51 Life's a beach: In search of ancient shorelines and volcanoes in the Grimes Point and Lahontan Mountains area

### Lists

- L-5 Index to geothermal well files housed at NBMG: Davis and Hess (2009) *updates* App. 2 of B91, \$19.50

### Maps

- M126 Nevada geothermal resources: Shevenell, Garside, and Hess (2000), *superseded by M161*
- M141 Nevada geothermal resources (second edition): Shevenell and Garside (2005), 1:750,000, \$16.00 for paper copy, *available folded or rolled, superseded by M161*
- M146 Geologic map of the Fraser Flat quadrangle and the west half of the Moses Rock quadrangle, Washoe Co., NV
- M151 Geothermal potential map of the Great Basin, western United States: Coolbaugh and others (2005), 1:1,000,000, \$30.00, *rolled only*
- M161 Nevada geothermal resources: Penfield, Shevenell, Garside, and Zehner (2010), 1:750,000, \$18.00, *folded or rolled, supersedes M126 and M141*

### Mineral Industry Series

MI-1979 through current year—The Nevada mineral industry is published annually and has a section on geothermal activities, varies with year, MI-1994-current year available free on Internet at <http://www.nbmг.unr.edu/> and click on "Online Documents."

### Newsletters

Nevada Geology Newsletter no. 19, page 3 (Summer 1993) "Low-temperature geothermal resources in Nevada" by Larry Garside, free

### Open-File Reports

- OF83-6 Preliminary map of thermal wells in the Moana geothermal area, Reno, Nevada: Garside, \$8.00
- OF87-2 Mineral resource inventory – U.S. Navy master land withdrawal area, Churchill County, Nevada: Quade and Tingley, \$92.00
- OF94-2 Nevada low-temperature geothermal resource assessment: 1994: Garside, with a bibliography by Davis and Garside, \$40.00 for text and plate, or \$20.00 for text on disk, or \$7.00 for plate only
- OF96-2-9 Reconnaissance photogeologic map of young (Quaternary and late Tertiary) faults in Nevada: (Plate 9) 1:1,000,000, map and text, \$15.00
- OF03-27 Preliminary geologic map of the Desert Peak-Brady geothermal fields, Churchill County, Nevada: Faults and Garside (2003), \$15.00 (*see also B97*)
- OF06-5 Mineral- and energy resource potential for White Pine County, Nevada
- OF06-6 Mineral- and energy resource potential for Pershing County, Nevada
- OF06-7 Mineral- and energy resource potential for Lyon County, Nevada
- OF06-12 Potential resources associated with proposed roadless areas in Nevada
- OF09-10 Preliminary geothermal potential and exploration activity in Nevada: Zehner, Coolbaugh, and Shevenell, 1:1,000,000-scale plate and text, \$20.00 (*supersedes OF09-1*)
- OF10-6 Preliminary geologic map of the Lee-Allen geothermal area, Churchill County, Nevada
- OF11-3 Preliminary geologic map of the Reese River geothermal area, Lander County, Nevada
- OF11-10 Descriptive logs, skeletonized samples, and photographs of core from Presco Energy's thermal gradient wells P3-1, P 10-1, and P 32-2 in the Rye Patch area, Pershing County, Nevada: Davis (2011, Web version only)

- OF11-11 Preliminary geologic map of the northern Lake Range, San Emidio geothermal area, Washoe County, Nevada: Rhodes, Faulds, and Ramelli, scale 1:24,000, \$18.00
- OF12-3 Data tables and graphs of geothermal power production in Nevada: Shevenell, Price, and Hess (1985-2011, Web version only)

### Reports

- R21 Geothermal exploration and development in Nevada through 1973
- R25 Evaluation of geothermal activity in the Truckee Meadows, Washoe County, Nevada: Bateman and Scheibach (1975), \$4.00
- R33 Papers on mineral deposits of western North America: (1979), presented at the Fifth Quadrennial Symposium of IAGOD, \$10.00
- R41 Precious-metal mineralization in hot springs systems, NV-CA: Tingley and Bonham (1986), \$15.00
- R43 Mineral resources of the Kumiva Peak 30' by 60' Quadrangle: Tingley (1989) pp. 16-17, \$5.00
- R44 Mineral resources of the Pahrangat Range 30' by 60' Quadrangle: Tingley (1989) pp. 8-9, \$5.00
- R45 Mineral resources of the Overton 30' by 60' Quadrangle: Tingley (1989) pp. 12-13, \$5.00
- R46 Mineral resources of the Timpahute Range 30' by 60' Quadrangle: Tingley (1991) pp. 30-31, \$5.00
- R51 Preliminary assessment of the potential for carbon dioxide disposal by sequestration in geological settings in Nevada

### Special Publications

- SP4 Geology of Nevada: a discussion to accompany the Geol. map of Nevada (see below): Stewart (1980), \$25.00
- 00001 Geologic map of Nevada: Stewart and Carlson, U.S.G.S. (1978) 1:500,000, *available rolled only*, \$20.00 *available free on the Internet at <<http://keck.library.unr.edu/>> and click on "Great Basin geoscience dataset" or at <<http://www.nbmng.unr.edu/dox/dox.htm>>, see SP4 for descriptive text*

### Urban Map Series

- 3Ah Energy and mineral resources map of the Las Vegas SE Quadrangle: Papke and Bell (1973) *available rolled or folded*, \$2.00
- 4Ah Energy and mineral resources map of the Reno Quadrangle: Bingler, Bonham, and Luza (1973) *available rolled or folded*, \$2.00
- 5Ah Energy and mineral resources map of the Washoe City Quadrangle: Papke and Jones (1978) *available rolled or folded*, \$2.00

### Nevada Petroleum Society

- NPS5 Geology of White River Valley, the Grant Range, Eastern Railroad Valley and Western Egan Range, Nevada
- NPS18 Oil, gas and geothermal occurrences in northwestern Nevada
- NPS22 Geology, Geothermal Resources and Petroleum Exploration of Neogene Basins in the Reno, Nevada Area

### USGS Publications

- C1249 Geothermal energy – clean power from the earth's heat: Duffield and Sass, *free on the Internet at <<http://geopubs.wr.usgs.gov/circular/c1249/>>*
- I-1701 Bouguer gravity anomalies, depth to bedrock, and shallow temperature in the Humboldt House geothermal area, Pershing County, Nevada: Schaefer (1986), \$9.00
- OF74-271 Geothermal systems of northern Nevada: Hose and Taylor (1974), 30 pages, call for prices
- OF74-1066 The chemical composition and estimated minimum thermal reservoir temperatures of the principal hot springs of northern and central Nevada, call for prices
- OF81-918 Geothermal resources of the western arm of the Black Rock Desert, northwestern Nevada, part I, geology and geophysics: Schaefer, Welch, and Maurer (1983), 41 pages and 4 plates, call for prices
- OF02-374 A helicopter-borne magnetic survey over Dixie Valley geothermal field, Nevada: A web site for distribution: Pearson, deRidder and Johnson (2002), *available free on the Internet at <<http://pubs.usgs.gov/of/2002/ofr-02-0374/>>*, call for prices
- OF02-384 High-resolution aeromagnetic survey to image shallow faults, Dixie Valley geothermal field, Nevada: Grauch (2002), *<<http://pubs.usgs.gov/of/2002/ofr-02-0384/>>*, call for prices

### Other Resources

Great Basin Center for Geothermal Energy is at <http://www.unr.edu/geothermal/>.

### For more information, please contact:

Nevada Bureau of Mines and Geology  
Great Basin Science Sample and Records Library  
2175 Raggio Parkway  
Reno, NV 89512

Phone: (775) 682-8766  
Fax: (775) 784-6690  
E-mail: [nbmg@unr.edu](mailto:nbmg@unr.edu)  
[www.nbmng.unr.edu](http://www.nbmng.unr.edu)

<b>Nevada Petroleum and Geothermal Society Calendar: Year 2013</b>	
Apr 4, 2013	<b>NPGS Monthly Dinner Meeting</b> – Thursday Apr 4, 6:30 PM Ramada Reno Hotel, 1000 E 6 <sup>th</sup> St, Reno, NV <i>Speaker: Don French, Geologist, Ciannis Exp., Billings MT</i> <i>Title: Mississippian Clastic Strata of the Great Basin: Refinement and Correlation based on Subsurface Data, New Geochemistry, and Petrography</i>
Apr 4, 2013	<b>UNR College of Science – Discover Science Lecture Series</b> <b>Dr. Steven Strogatz</b> <b>Information: 775-784-4591; science@unr.edu</b>
Apr 8, 2013	<b>UNR Geological Sciences Seminar Series – Mondays 4:00 PM</b> DMS 103; <a href="http://crack.seismo.unr.edu/geosci/">http://crack.seismo.unr.edu/geosci/</a> Chad Deering, UW Osh Kosh
Apr 8, 2013	<b>Northern Nevada Section SME Monthly Dinner Meeting</b> Bill Stanley, VP Expl, ATNA Resources, LTD. Circus-Circus Mandalay Room, Happy Hour 6:00, Dinner 6:45, Talk 7:30 RSVP by Wed Apr 3; 775-682-7379; <a href="mailto:dlightwood@unr.edu">dlightwood@unr.edu</a>
Apr 12-13, 2013	<b>UNLV 8<sup>th</sup> Annual GEOSYMPIOSIUM 2013 – Las Vegas, NV</b> <b>Email <a href="mailto:jayakody@unlv.nevada.edu">jayakody@unlv.nevada.edu</a>; (702) 895-4633</b> <b><a href="http://geoscience.unlv.edu/geosymposium">http://geoscience.unlv.edu/geosymposium</a></b>
Apr 19, 2013	<b>GSN Membership Meeting – Reno Elks Lodge</b> 597 Kumle Lane, Reno, NV – Friday , 6:00 PM Drinks at 6:00 PM, dinner at 7:00 PM, and talk at 8:00 PM. RSVP by NOON Thu Apr 18: Laura Ruud (775) 323-3500, <a href="mailto:gsn@gsnv.org">gsn@gsnv.org</a>
Apr 19-25, 2013	<b>Pacific Section AAPGS/SPE/PSSEPM Conference</b> <b>Monterey, CA Apr 19-25, 2013: Portola Hotel &amp; Spa</b> <b><i>Energy &amp; the Environment – Working Together for the Future</i></b>  <b>Submit abstracts to: <a href="mailto:psaapgabs@gmail.com">psaapgabs@gmail.com</a> – Deadline Jan 15, 2013</b>
May 2, 2013	<b>NPGS Monthly Dinner Meeting</b> – Thursday May 2, 6:30 PM Ramada Reno Hotel, 1000 E 6 <sup>th</sup> St, Reno, NV <i>Speaker: Sean P. Long, Research Professor, NBMG, UNR</i> <i>Topic: Mid-Tertiary Unconformity, implications of the structure of Railroad Valley and the surrounding region</i>
Jun 11, 2013	<b>Nevada BLM Oil &amp; Gas Lease Sale, Reno NV</b> <b>41 parcels available, Eureka and Nye Counties</b> <a href="http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/oil_gas/oil_and_gas_leasing.html">http://www.blm.gov/nv/st/en/prog/minerals/leasable_minerals/oil_gas/oil_and_gas_leasing.html</a>
Jun 26-27, 2013	<b>Geothermal Energy Association - National Geothermal Summit</b> <b>June 26-27, 2013 – Reno, NV</b> <a href="http://geo-energy.org/events.aspx">http://geo-energy.org/events.aspx</a>
Sep 22-24, 2013	<b>AAPG- Rocky Mtn Section 62<sup>nd</sup> Annual Meeting – Sep 22-24, 2013</b> Utah Geological Association hosting at the Hilton Salt Lake City Center <b><i>“Energy Elevated”</i></b> Call for papers, deadline for abstracts Mar 29. <b><a href="http://www.rmsaapg2013.com">www.rmsaapg2013.com</a></b>

Nov 19	<b>Nevada BLM Geothermal Lease Sale, Reno, NV</b> <b>Nominations must be received by the BLM by April 12, 2013.</b> <a href="http://www.blm.gov/pgdata/etc/medialib/blm/nv/minerals/geothermal/leases/ales.Par.76255.File.dat/20131119_Geo_Sale_Nominations.pdf">http://www.blm.gov/pgdata/etc/medialib/blm/nv/minerals/geothermal/leases/ales.Par.76255.File.dat/20131119_Geo_Sale_Nominations.pdf</a>
<b>2016</b>	<b>Rocky Mountain Section/Pacific Section Meeting – AAPG 2016</b> 2016 joint RMS-AAPG/PS-AAPG annual meeting, Las Vegas, Nevada

The NPGS Newsletter is provided to members of the Nevada Petroleum and Geothermal Society. For information about membership and events, see the NPGS website at <http://www.nbmj.unr.edu/nps/> To submit articles, corrections or suggestions for the newsletter; Contact Vicki Ehni 775-883-1107, cell 775-720-6387; email [vehni@aol.com](mailto:vehni@aol.com) .

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