OIL & GAS CONSERVATION. COMMISSION— -MINUTES OF MEETING / JULY 18,2014— STEVEN L RAUZI, OIL & GAS ADMINISTRATOR

#### NOTICE OF COMBINED PUBLIC MEETING AND POSSIBLE EXECUTIVE SESSION

#### OIL AND GAS CONSERVATION COMMISSION

Pursuant to A.R.S. § 38-431.02, notice is hereby given to the members of the Oil and Gas Conservation Commission and to the general public that the Oil and Gas Conservation Commission will hold a meeting open to the public on July 18, 2014, at 10:00 a.m. in Room 321 of the State Land Department Building located at 1616 West Adams Street, Phoenix, Arizona 85007.

The agenda for the meeting is as follows:

- 1. Call to Order
- 2. Approval of Minutes of Meeting of October 18, 2013
- 3. Conflicts of interest
- 4. Report of Oil & Gas Administrator about new permits and drilling activity
- 5. Status of Triomphe Energy #1 well, Permit 1095
- 6. Soneera Water presentation about treatment of waste water
- 7. Coordination with ADEQ for wells with proposed artificial stimulation activities
- 8. Status of the Kinder Morgan CO<sub>2</sub> project between St Johns and Springerville
- 9. Review of drilling performance bonds
- 10. Call to the public: This is the time for the public to comment. Members of the Commission may not discuss items that are not on the agenda. Therefore, action taken as a result of public comment will be limited to directing staff to study the matter or scheduling the matter for further discussion and decision at a later date.
- 11. Announcements
- 12. Adjournment

Members of the Oil and Gas Conservation Commission will attend either in person or by telephone conference call.

The Oil and Gas Conservation Commission may vote to go into Executive Session, pursuant to A.R.S. § 38-431.03(A)(3) or (4), which will not be open to the public, to consult with its attorney and receive legal advice with respect to any regular agenda item listed on this agenda.

A copy of the agenda background material provided to Commission members (with the exception of material relating to possible executive sessions) is available for public inspection at the Oil and Gas Administrator's office, 416 West Congress, Suite 100, Tucson, Arizona 85701.

The public may be afforded an opportunity to comment on any item on the agenda; however, at the beginning of the meeting, the Commission may vote to set up a time limit on individual comments.

Dated this 10th day of July 2014

OIL AND GAS CONSERVATION COMMISSION

Steven L. Rauzi

SCRain

Oil and Gas Program Administrator

Persons with a disability may request a reasonable accommodation such as a sign language interpreter, by contacting Steve Rauzi at (520) 770-3500. Requests should be made as early as possible to allow time to arrange the accommodation. This document is available in alternative formats by contacting Steve Rauzi at (520) 770-3500.

#### OIL AND GAS CONSERVATION COMMISSION

416 West Congress #100 Tucson, Arizona 85701

Minutes of Meeting October 18, 2013

Present:

Dr. J. Dale Nations, Chairman

Mr. Robert L. Wagner, Vice-chairman

Mr. Stephen R. Cooper, Member

Mr. Frank Thorwald, Member

Mr. Steven L. Rauzi, Oil and Gas Program Administrator

Dr. Nations, Chairman, called the regular Commission Meeting of October 18 to order at 10:00 a.m. in Room 321, State Land Department Building in Phoenix, Arizona.

#### APPROVAL OF THE MINUTES OF THE MEETING OF JULY 19, 2013

Mr. Wagner moved, seconded by Mr. Thorwald:

THAT THE MINUTES OF THE MEETING OF JULY 19, 2013, BE ACCEPTED AS PRESENTED

Motion carried unanimously.

#### CONFLICTS OF INTEREST

None

#### REPORT OF THE OIL AND GAS ADMINISTRATOR

The activity report of Mr. Rauzi was sent to the Commissioners and has been made a part of these minutes. Mr. Rauzi reported that 36 new permits were issued and 18 wells were drilled since the July 2013 meeting. He reported that American West Potash drilled the 18 wells for potash east of Petrified Forest National Park. Mr. Rauzi reported a successful inspection of the LPG facilities near Luke and Adamana. He noted that he gave a short talk about potash drilling in the area to the New Mexico Geological Society field trip at the Petrified Forest National Park the day after his LPG inspection.

#### STATUS OF TRIOMPHE ENERGY #1 WELL (PERMIT 1095)

Mr. Rauzi reported that temporary abandonment on the Triomphe Energy well north of Holbrook expired this month. He reported that Triomphe Energy planned to start more tests of the well on October 30 and submitted a request to extend temporary abandonment through June 2014, which is the term of confidentiality on the well. Mr. Rauzi recommended approval of the request.

Mr. Cooper moved, seconded by Mr. Wagner:

TO EXTEND TEMPORARY ABANDONMENT TO JULY 31 SO THAT THE COMMISSION COULD ADDRESS THE ISSUE AT ITS JULY 2014 MEETING

Motion carried unanimously.

#### STATUS OF KINDER MORGAN CO2 PROJECT BETWEEN ST JOHNS AND SPRINGERVILLE

Mr. Ryan McCreery presented an overview of Kinder Morgan and Kinder Morgan's holdings in Arizona including the St Johns CO<sub>2</sub> source field. Ms. Corrie Hartman presented the current status of

Kinder Morgan's drilling and testing program at the St Johns field, discussed anticipated drilling and testing programs starting in late 2013 and continuing through 2014 and 2015 and achieving initial field development in 2016. Ms. Hartman discussed anticipated flow rates from the wells, which could ultimately reach 160 wells, to achieve the 300 million cubic foot per day rate for the pipeline. She reported that formation water in the producing formation ranged from 20,000 to 50,000 ppm total dissolved solids and indicated that because of the depth of the producing formation and completion techniques there would be no communication between the water in the producing formation and the shallower aquifer.

#### CALL TO THE PUBLIC

Mr. Conrath reported on recent BLM lease sales near Gray Mountain and south of Kingman.

#### **ANNOUNCEMENTS**

The Commission scheduled its next meeting at 10:00 a.m. on January 17, 2014, in room 321 at the State Land Department Building in Phoenix.

#### **ADJOURNMENT**

Mr. Wagner moved, seconded by Mr. Cooper:

#### THAT THE MEETING BE ADJOURNED

Motion carried unanimously. Time of adjournment was 10:35 a.m.

#### **APPROVED**

**GUESTS IN ATTENDANCE** 

Mr. Fred Conrath
Mr. Joe Dixon
U.S. Bureau of Land Management
Arizona State Land Department

Gordon Dubley United Helium

Dennis Hall Montgomery & Associates

Corrie Hartman Kinder Morgan Raymond Hobbs United Helium

Jason Isaak PDC

Michael Ingrads Arizona Game & Fish

Ryan McCreery Kinder Morgan Bill Nesgood Kleinfelder

Dannette Weiss Arizona Game & Fish

Mr. Thomas White Kinder Morgan



#### State of Arizona Arizona Geological Survey

416 W. Congress, Suite 100 Tucson, Arizona 85701 (520) 770-3500



M. Lee Allison, Ph.D., R.G. Director and State Geologist

July 10, 2014

To:

Oil and Gas Conservation Commissioners

From: Steven L. Rauzi, Oil and Gas Administrator

Re:

Report about permits and drilling activity for the July 18, 2014 Meeting

Eight new permits were issued in 2014. Two permits were issued to Gusher State for exploration holes north of Douglas and six permits were issued to Kinder Morgan at the St Johns Gas Unit between St Johns and Springerville. Gusher State has not started drilling. Kinder Morgan has drilled one well and is currently drilling a second well.

Forty seven drilling permits were issued and 30 wells were drilled in 2013. Twenty seven wells were drilled east of Holbrook for potash in 2013. Passport Potash drilled six wells, HNZ Potash drilled one well, and American West Potash drilled 20 wells. The Oil and Gas Conservation Commission requires a permit for the potash stratigraphic wells because the holes penetrate the Coconino Sandstone, a potential helium reservoir in the area of the Petrified Forest National Park, Kinder Morgan drilled three new wells and tested several existing wells in the St Johns Gas Unit in 2013. Kinder Morgan anticipates drilling up to 250 wells, building a pipeline and ultimately delivering at least 300 million cubic ft of gas a day to the Permian Basin by 2016. Ridgeway Arizona Oil Corporation drilled the discovery well for the CO₂ field in August 1994.

I completed an inspection of both the Plains LPG storage facility near Luke and the Enterprise Products LPG storage facility near Holbrook. All wellhead valves, pneumatic controls, and emergency shut down and flare systems were in good condition.

The Arizona Department of Environmental Quality (ADEQ) agreed that I would inform operators anticipating hydraulic fracturing of the need to obtain necessary permits from ADEQ.

CO<sub>2</sub> Sequestration. The AZGS joined the Rocky Mountain Carbon Capture and Sequestration partnership (RMCCS) to study CO<sub>2</sub> sequestration potential across the Colorado Plateau region. The AZGS determined that the Cedar Mesa Sandstone of Permian age has the capacity to store 0.70 billion metric tons of CO<sub>2</sub> in northern Arizona. The Cedar Mesa Sandstone underlies the Navaio Generating Station near Page, Arizona. The AZGS also digitized oil and gas well logs into computer usable LAS (Log ASCII Standard) format to aid subsurface investigations using well logs and developed a user-friendly web application to make the digitized well data available online. The online search and download map, the Arizona Oil and Gas Well Viewer, is hosted under the Online Data tab on the State of <u>Arizona Oil and Gas Conservation Commission</u> (AZOGCC) website. The AZGS released OFR-14-03, which describes the results of its investigation of the sequestration potential of the rock units in northeastern Arizona.



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**Todd Clement** 

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June 9, 2014

J. Dale Nations, Chairman
Stephen R. Cooper
Frank Thorwald
Robert L. Wagoner
Vanessa Hickman,
Ex-Officio Arizona Oil and Gas Conservation Commission
416 West Congress Street, Suite 100
Tucson, Arizona 85701-1381
steve.rauzi@azgs.az.gov

Re: Triomphe #1 Well Permit No 1095
Request for a Temporary Abandonment Extension
Request for Confidential Treatment of Well Information Extension

Dear Chairman and Commissioners,

Triomphe Energy, LLC ("Triomphe Energy") respectfully requests that the Commission grant a six month Temporary Abandonment extension for the Triomphe Energy #1 Well Permit No 1095. Currently recompletion work and evaluation of the Triomphe #1 Well is underway with a temporary abandonment deadline set to expire July 31, 2014. On April 14, 2014 a re-completion sundry notification was given to the AZGS for the current work and well evaluation. On April 15, 2014 permission was granted from the AZGS for the re-completion work along with the following advisory from Mr. Steve Rauzi, "Please be advised that any hydraulic fracturing of wells in Arizona will require an Aquifer Protection Permit from the Arizona Department of Environmental Quality."

Upon receipt of this advisory we made contact with the Arizona Department of Environmental Quality to understand from them what time frame they would require for an Aquifer Protection Permit. The personnel at the Arizona Department of Environmental Quality informed us that it could take up to six months to evaluate and process an Aquifer Protection Permit. For this reason Triomphe Energy, LLC respectfully requests the Arizona Oil and Gas Commission for a six month Temporary Abandonment Extension from July 31, 2014 to January 31, 2015.

In addition, as a safeguard, Triomphe Energy, LLC respectfully requests that the confidential status of casing records, well logs, completion reports, and other well information submitted to the Commission by Triomphe Energy also be extended to the January 31, 2015 deadline. Due to expire June 30, 2014 a premature release of raw drilling data from Triomphe #1 to the public has the potential to adversely impact Triomphe Energy's project in these exploratory stages, including pursuit of nearby land holdings from worldwide competition.

If additional information from Triomphe Energy is needed regarding this confidential request, please contact me at (208) 313-5908.

Respectfully,

**Todd Clement** 

Triomphe Energy, LLC

cc: Steve Rauzi, Oil and Gas Administrator (via email)

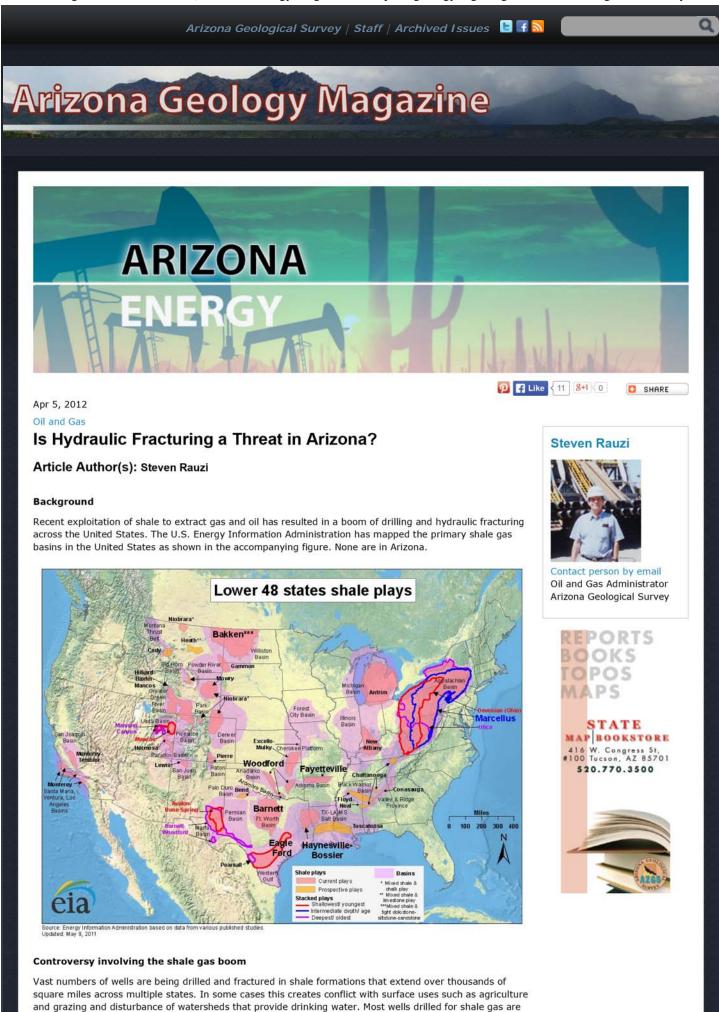
## ADEQ + OGCC frac coordination

6-17-14 Call Mike Fulton, ADEQ 771-2306 10e Mss to talk about OGCC & ADEQ Coordination about hydraulic fracturing

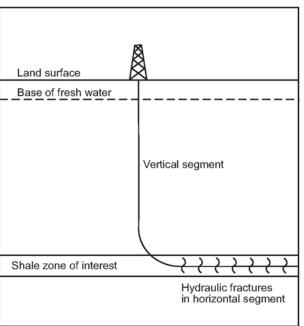
6-19-14 Matibeth Greenslade left unss she was beturning my call to Mike Fulton. Her phone # 602-771-4578

6-20-14 Call Maribeth

- · We both agree permits initiated at Ofce
- I will inform operators of need to contact ADEQ if fracing anticipated. Contact person is Maribeth Greenslade Phone: 602-771-4578 email: mg3@azdeg. gov
- · Inform her I will state same at July 18 mts.
- · She will get back to me if her superiors disagree.



drilled vertically to much deeper than freshwater aquifers, then angled to horizontal to penetrate and fracture as much of the productive shale formation as possible. The accompanying schematic depicts a typical well drilled first vertically then horizontally for shale gas.



The sheer number of wells being drilled and fractured has created controversy about contamination of groundwater even though the fractured horizontal segment of most shale-gas wells is much deeper than freshwater aquifers. In some areas the construction of many well pads and access roads and increased truck traffic to complete the hydraulic fracturing process could result in significant surface disturbance and adversely impact surface watersheds. Significant surface-disturbance activities also concern agriculture and grazing users. The controversy surrounding the shale gas boom involves land owners, lessees of surface rights such as agriculture and grazing, oil and gas companies, conservation groups, regulatory agencies and film makers. The movie Gasland released in 2010 by Josh Fox dramatically expresses the controversy. Gasland describes several individuals and communities that claim to be adversely impacted by the drilling and fracturing boom.

#### What is hydraulic fracturing?

Hydraulic fracturing is a relatively short-term activity that stimulates the flow of gas and oil (hydrocarbon production) from deep shale formations that do not naturally allow fluids to flow through them. These tight shale formations are the target of the drilling and fracturing boom. The fracturing process involves pumping a mixture of about 99 percent water and sand plus a minor amount of additional chemicals into a well at a pressure high enough to crack or fracture the tight shale formation of interest. The chemicals used and their purpose is reported at FracFocus, the hydraulic fracturing chemical registry website (http://fracfocus.org/). Once created, the sand-packed fractures open pathways that allow oil or gas to move or migrate from the tight formation to the well. The watery fluid is recovered from the fractures shortly after being pumped into the well. This is done slowly enough to allow the geologic formation to compress against and prevent the sand from flowing back out of the fractures with the watery fluid. The sand remains in the fractures and props them open. That is why the sand or similar granular substance such as walnut shells or ceramic particles is often called a propping agent or "proppant."

Partly because of the short-term duration of the hydraulic fracturing process to stimulate production in oil and gas wells, the Energy Policy Act of 2005 (EPACT) Section 322 excludes from the Safe Drinking Water Act the underground injection of fluids or propping agents, other than diesel fuels, used in hydraulic fracturing related to oil, gas, or geothermal production activities. EPACT does not exclude wells used in relatively long term activities to dispose of fluids associated with the production of oil and gas, to inject fluids for enhanced oil recovery, or for wells used for the storage of liquid hydrocarbons.

#### Hydraulic fracturing is regulated in Arizona

The Arizona Oil and Gas Conservation Commission (AZOGCC) has received several inquiries over the past few years regarding shale gas drilling and hydraulic fracturing in Arizona. A common concern is environmental damage due to hydraulic fracturing. Hydraulic fracturing is rarely used in Arizona and thus is not a threat. There are no shale-gas wells in Arizona and there has been no horizontal drilling and no hydraulic fracturing associated with those types of wells. In fact no wells have ever been drilled in Arizona for shale-gas. The geology of Arizona does not include the extensive areas of the type of shale formation that shale-gas developers are looking for.

Only ten wells have been hydraulically fractured in Arizona in the last 15 years. Seven were fractured in 1997, one in 2004 and two in 2008. All of the wells were drilled for carbon dioxide gas, not shale gas, in east-central Arizona between St Johns and Springerville.

The AZOGCC has rules to ensure that fracturing oil and gas wells is done safely and does not contaminate groundwater or surface resources. Permission is not required in advance of fracturing but an operator is required to report hydraulic fracturing activities to the AZOGCC in writing showing the type of stimulation, the amounts and types of materials used, pressures applied, and the flow and pressure results before and after stimulation. An operator is also required to immediately notify the AZOGCC if the stimulation of a well results in any damage to the producing formation, to a freshwater formation, or to a well casing, or casing seat if this damage permits fluid communication between fluid-bearing zones. The well operator must then proceed with diligence to correct the damage. The operator must also properly plug and abandon the well if the stimulation results in irreparable damage to the well.

#### Useful references about hydraulic fracturing

http://fracfocus.org/: FracFocus is the hydraulic fracturing chemical registry website. It is a joint project of the Groundwater Protection Council and the Interstate Oil and Gas Compact Commission. On this website you can search for well sites that have been hydraulically fractured to see what chemicals were used in the process.





# water

The Fracking & Waste Water Specialists

# Traditional water treatment challenges

- Cost efficient & practical water recycling
- Salt levels at 10-15%
- Chemicals and heavy metal removal
- Footprint, mobility and cost of plant
- Environmental effects and public pressure



# **Soneera Water Treatment System** soneerawater

# **Technical Aspects**

Uses a bubble – ion barrier to remove pollutants

- Pollutants automatically removed during operation
- Power usage typically 0.3 to 0.7kWh/m3
- Removal rates typically 95% to 98%
- Fast throughput typically 1hr
- Fully scalable



# **Treatment Capability**

- Halogenated hydrocarbons
- Benzene ring structures
- Most natural and many synthetic dyes
- Ink, pigments and paint
- Monomers and polymers
- Decaying animal and vegetable matter
- Asbestos, clay and other suspended solids
- Some low atomic number ions, B, F, Mg, Al, Ca
- Nitrates and nitrites
- Removal of other total Kjeldahl nitrogen variable
- BOB/COD small molecules
   <300ug/MOL difficult to remove</li>

- Free and emulsified fats, oils, grease
- >C6 Hydrocarbons
- Cations with atomic number >23 (including hexavalent chromium)
- Anions with atomic number >33, (including bromide and iodide)
- Chemicals such as cyanide, arsenate, phosphate
- Pathogens such as algae, bacteria and viruses
- Soaps and detergents (MBAS active substances)
- Removal of radioactive contaminants



## **Experience - Australian Systems**



- Operational mine site in Sydney. Tasked to clean mining effluent before it enters the Sydney National Park. Delivering 350,000gal/day under an EPA license
- 2. Small 20' system at the Adelaide sewage plant
- Other sites include:
  - a. Providing drinking water in National parks
  - b. Providing drinking water in two State prisons
  - c. Providing drinking water in a large seasonal caravan park
  - d. Cleaning ballast water from a Sydney Marina
  - e. Recycling water used to clean council garbage trucks
  - f. Providing primary and secondary treatment for a food manufacturer





## **Process Results**



1. Oil & petroleum in stagnant water with algae treated in 60 minutes

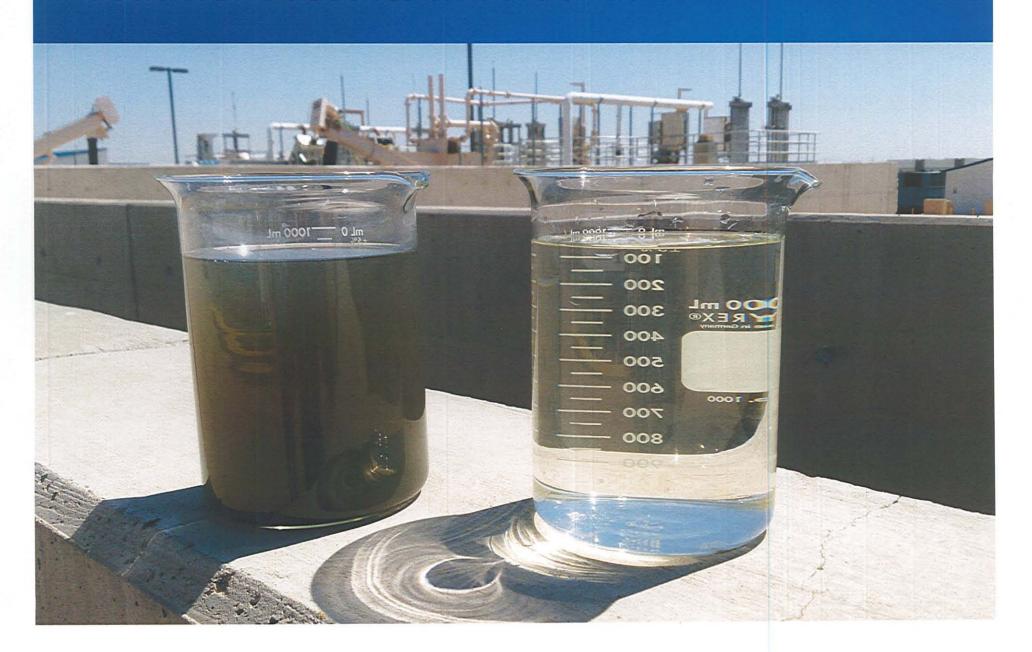


2. Raw sewage treated within 45 minutes





## **Treatment results in Phoenix**



# Review of current water treatment challenges

- ✓ Cost efficient & practical water recycling
- ✓ Salt levels at 10-15%
- ✓ Chemicals and heavy metal removal
- ✓ Footprint, mobility and cost of plant
- ✓ Environmental effects and public pressure



## **Points of Contact**

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## Kinder Morgan - OGCC Mts 7-18-2014

### St Johns Drilling Schedule

| Wells         | Туре      | 2014                   |   |                  |                      |                |     |                |                   |     |  |
|---------------|-----------|------------------------|---|------------------|----------------------|----------------|-----|----------------|-------------------|-----|--|
|               |           | Apr                    | May   | Jun              | Jul<br>30 7 14 21 28 | Aug 4 11 18 25 | Sep | Oct 6 13 20 27 | Nov<br>3 10 17 24 | Dec |  |
|               |           | 7 14 21 28             | 5 12 19 26  | 2 9 16 23 30     |                      |                |     |                |                   |     |  |
| 11-12-29      | Vert Core |                        |   |                  |                      |                |     |                |                   |     |  |
| 10-03-30      | Vert      |                        |   |                  |                      |                |     |                |                   |     |  |
| 10-02-30      | Deepen    |                        |   |                  |                      |                |     |                |                   |     |  |
| 11-30-30      | Vert Core |                        |   |                  |                      |                |     |                |                   |     |  |
| 11-08-30HSE   | MR HZ     |                        |   |                  |                      |                |     |                |                   |     |  |
| 11-30-30HNW   | SR RE     |                        |   |                  |                      |                |     |                |                   |     |  |
| 10-27-31HSE   | MR HZ     |                        |   |                  |                      |                |     |                |                   |     |  |
| 10-03-30HSE   | SR RE     |                        |   |                  |                      |                |     |                |                   |     |  |
| 10-11-30      | Vert      |                        |   |                  | 31                   |                |     |                |                   |     |  |
| Pit Cleanup   | N/A       |                        |   |                  |                      |                |     |                |                   |     |  |
|               |           |                        |   |                  |                      |                |     |                |                   |     |  |
|               |           |                        |   |                  |                      |                |     |                |                   |     |  |
|               |           |                        |   |                  |                      |                |     |                |                   |     |  |
| Approved      |           |                        | Aztec   | 711 Drilling Rig |                      |                |     |                |                   |     |  |
| Submitted     |           | Aztec 448 Workover Rig |   |                  |                      |                |     |                |                   |     |  |
| Not Submitted |           |                        | CONTRACTOR OF THE PARTY OF THE | est Unit         |                      |                |     |                |                   |     |  |

|                                   | COLD DUDIES I                        | Cash Securitie           | s Held by Arizon    | a Geological Surve  | y in A       | Agency Fund     |   |
|-----------------------------------|--------------------------------------|--------------------------|---------------------|---------------------|--------------|-----------------|---|
| Date                              | Effective date                       | Operator                 | Org. Amount         | Forfeited Bond      | Amount       |                 | Comments                                      |
| 8/1991                            |                                      | United Gas               | \$ 5,000.00         | \$ 4,395.28         | \$           | 604.72          |   |
| 1/1994                            |                                      | Contender                | \$ 5,000.00         | \$ 5,000.00         | \$           | 5,000.00        |   |
| 6/15/1995                         |                                      | Arzon Corp               | \$ 10,000.00        |                     | \$           | 10,000.00       |   |
| 4/17/2002                         |                                      | Aquila                   | \$ 10,000.00        |                     | \$           | 10,000.00       |   |
| 3/20/2009                         | 3/31/2009                            | Wilcox Greenhouse        | \$ 10,000.00        |                     | \$           | 10,000.00       | Producing Geothermal well                     |
| 5/5/2009                          | 5/11/2009                            | SW Exploration- Passport | \$ 25,000.00        |                     | \$           | 25,000.00       | Monies are currently on Oil and Gas Bond Fund |
| 1/28/2011                         | 1/28/2011                            | SW Exploration- Passport | \$ 25,000.00        |                     | \$           | 25,000.00       | Monies are currently on Oil and Gas Bond Fund |
| 4/19/2011                         | 4/19/2011                            | American West Potash LLC | \$ 50,000.00        |                     | \$           | 50,000.00       | Monies are currently on Oil and Gas Bond Fund |
| 3/23/2012                         |                                      | Triomphe Energy LLC      | \$ 10,000.00        |                     | \$           | 10,000.00       | Monies are currently in Oil and Gas Bond Fund |
| 8/26/2013                         | 8/26/2013                            | Gusher State             | \$ 25,000.00        |                     | \$           | 25,000.00       | Monies are currently in Oil and Gas Bond Fund |
| Т                                 | Total Amount in Agency Fund          |                          | \$ 175,000.00       | \$ 9,395.28         | \$           | 170,604.72      |   |
|                                   |                                      |                          |                     |                     |              |                 |   |
| Carry Tale                        |                                      |                          | Securities Held     | by the State Treasu | rer          | Facilities (VV) |   |
| Date                              | Opera                                | Operator                 |                     | CD Number           |              | Amount          | Comments                                      |
| 11/1/2003                         | Holbrook                             | Holbrook Basin           |                     |                     | \$           | 10,000.00       |   |
| 8/19/2004                         | Holbrook                             | Bank of America          | 91000057645689      | \$                  | 10,000.00    |                 |   |
| 9/20/2004                         | Holbrook                             | Bank One                 | 0100000927604       | \$                  | 10,000.00    |                 |   |
| 12 10 40 84                       | Total Amount Held by State Treasurer |                          |                     |                     | \$           | 30,000.00       |   |
|                                   |                                      |                          | DATE DE LA COMPANIO |                     |              |                 |   |
|                                   |                                      |                          | Surety Per          | formance Bonds      |              |                 |   |
| Operator Box                      |                                      | Bond Company             | Bond Number         | Remark              | Amount       |                 | Comments                                      |
| APS                               |                                      | Liberty Mutual Insurance | 024-016-685         | P/N 929             | \$25,000.00  |                 |   |
|                                   | Enterprise Products                  | Liberty Mutual Insurance | 022-018-498         | P/N 778             |              | \$50,000.00     |   |
| Gruy Petroleum                    |                                      | RLI Insurance Co.        | RLB0007431          | P/N 920             | \$25,000.00  |                 |   |
| HNZ Potash Fide                   |                                      | Fidelity of Maryland     | LPM08800239         | P/N 1000            |              | \$50,000.00     |   |
| Plains LPG Services LP            |                                      | RLI Insurance Co.        | RLB0010111          | Blanket             | \$25,000.00  |                 |   |
| Kinder Morgan CO2 Co., L.P. Liber |                                      | Liberty Mutual Insurance | 022-036-714         | Blanket             |              | \$50,000.00     |   |
|                                   | Total Amount Held in Surety Bond     | s Payable to State       |                     |                     | (galley)     | \$225,000.00    |   |
|                                   |                                      |                          |                     |                     |              |                 |   |
|                                   | Total Amount Held in Age             |                          |                     | \$                  | 170,604.72   |                 |   |
|                                   | Total Amount Held by State           |                          |                     | \$                  | 30,000.00    |                 |   |
|                                   | Total Amount Held in Surety Bond     |                          |                     |                     | \$225,000.00 |                 |   |
|                                   | Total Active Surety + Non-Surety Bo  | onds Held July 2013      |                     |                     | \$           | 425,604.72      |   |

## OGCC MIG

7-18-2014

Name
Thomas Whito
Carroletk Winsteal
DARRELL Bohan
Joe Dixon
Michele Van Quotlen
Corriet Hartman

Replesenting
Kinder Morgan

GES

Loneers Waben.

A2 State Land Dept.

Ryly Carbok.

Kind-1 Mussin