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OIL & GAS CONSERVATION COMMISSION

MINUTES OF MEETING - JULY 8, 1994

STEVEN L RAUZI, PROGRAM ADMINISTRATOR



Arizona Geological Survey

845 North Park Avenue, #100 Tucson, Arizona 85719 (602) 882-4795



Larry D. Fellows Director and State Geologist

Fife Symington Governor

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 8, 1994, at 10:00 a.m. in Room 500 of the State Capitol located at 1700 West Washington, Phoenix, Arizona 85007. As indicated in the agenda, the Oil and Gas Conservation Commission may vote to go into executive session which will not be open to the public to discuss certain matters.

The agenda for the meeting is as follows:

- 1. Call to Order
- 2. Approval of Minutes of Meeting and Executive Session of March 11, 1994
- 3. Statement of Director and State Geologist
- 4. Report of Oil & Gas Program Administrator
- 5. Commission Oil & Gas Policy on Indian and Federal Lands
- 6. Oil and Gas Exploration Incentives
- 7. Proposed statutory amendments to A.R.S. §§ 27-516(A)(3) and 27-654
- 8. Election of vice-chair
- 9. Call to the public
- 10. Discussion of rule on unanticipated situations
- 11. Status of #1 and #2 Power Ranches geothermal wells near Higley
- 12. Announcements
- 13. Adjournment

The Oil and Gas Conservation Commission may vote to go into Executive Session, pursuant to A.R.S. § 38-431.03(A)(3), 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 Program Administrator's office, 845 North Park Avenue, Suite 100, Tucson, Arizona 85719.

The public will 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 24th day of June 1994.

OIL AND GAS CONSERVATION COMMISSION

Steven L. Rauzi

Oil and Gas Program Administrator

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Arizona Geological Survey

845 North Park Avenue, #100 Tucson, Arizona 85719 (602) 882-4795



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Dated this 24th day of June 1994.

OIL AND GAS CONSERVATION COMMISSION

Steven L. Rauzi

Oil and Gas Program Administrator

Steven C. Raniz

PLEASE ADVISE PAM OR ME ASAP IF YOU WILL NOT BE ATTENDING THIS MEETING

OIL AND GAS CONSERVATION COMMISSION

845 North Park Avenue, #100 Tucson, Arizona 85719

> Minutes of Meeting March 11, 1994

Present:

Dr. J. Dale Nations, Chairman
Mr. Zed Veale, Member
Dr. Jan C. Wilt, Member
Mrs. Lisa C. Worthington, Member
Dr. Larry D. Fellows, State Geologist
Mr. Steven L. Rauzi, Oil and Gas Program Administrator

The regular Commission Meeting of March 11, 1994, was called to order by Dr. J. Dale Nations, Chairman, at 10:00 a.m. in Room 500, State Capitol Building, Phoenix, Arizona.

APPROVAL OF MINUTES OF MEETING AND EXECUTIVE SESSION OF JANUARY 14, 1994

The minutes of the Meeting and Executive Session of January 14, 1994, were amended as follows:

THAT ALL REFERENCE TO MRS. JAN WILT BE AMENDED TO DR. JAN WILT

Mrs. Worthington moved, seconded by Dr. Wilt:

THAT THE MINUTES OF THE MEETING AND EXECUTIVE SESSION OF JANUARY 14, 1994, BE ACCEPTED AS AMENDED

Motion carried unanimously.

STATEMENT OF DIRECTOR AND STATE GEOLOGIST

Dr. Fellows reported that a continuing budget was approved for fiscal year 1994-95. This budget contains no increases or decreases.

Dr. Fellows reported that the Mined Land Reclamation Bill, Senate Bill 1153, passed the full Senate and was sent to the House where there will be hearings unless it is held for some reason. As part of the bill, a study committee made of Chairs from the Senate and House Appropriation Committees, the Senate and House Natural Resources Committees, a member of the minority party from the Senate and one from the House, and someone

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Oil and Gas Conservation Commission Minutes

March 11, 1994

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from the Governor's Budget Office will be established in 1995 to consider forming a natural resources department. Dr. Fellows noted that oil, gas, and mining regulatory functions are combined as a single unit within such departments in a number of other states and advised that he will be following this bill and the study committees very closely.

REPORT OF THE OIL AND GAS PROGRAM 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 two inquiries were received on the Power Ranches geothermal wells, that he intended to witness Amerigas sonar cavern 1 this month as it would be run through two strings of pipe, that Contender Oil Company's forfeited bond was deposited into a forfeited account within the bond fund, which is otherwise for refundable cash deposits, and that he is still discussing the third set of rules with the Attorney General's Office.

Mr. Rauzi discussed Mr. Floyd Moulton's letter to the Governor comparing Arizona's leasing policy with the leasing policy of Utah, the primary difference being the length of the primary term, which is five years in Arizona and ten years in Utah. Mr. Rauzi advised that he referred Mr. Moulton to the State Land Commissioner and the Department of Commerce. He noted that Arizona is not competitive with federal leasing policy in that the primary term on federal leases is ten years.

Dr. Wilt asked about plugging the Contender well. Mr. Rauzi explained that he will get the plugging requirements together so the State Procurement Office can prepare a request for quote, which is required for expenditures over \$2,500.

STATUS OF #1 ALPINE-FEDERAL GEOTHERMAL WELL

Mr. Rauzi reviewed letters from Mr. Tom Moses expressing the U.S. Geological Survey's interest in the well, Mr. John Mock committing \$25,000 from the U.S. Department of Energy for plugging, and from Mr. Bob Stephenson concerning unfinished contractual obligations between Tonto Drilling Services and the Arizona Department of Commerce. Mr. Rauzi recommended that the contractual obligations be resolved before the Commission approves the transfer of the well to the U.S. Geological Survey.

Mr. Frank Mancini advised that the Arizona Department of Commerce intends to cooperate with the U.S. Geological Survey and has no objection to transferring the well as long as Tonto's contractual obligations are first fulfilled. Mr. Mancini reported that Commerce will meet with Tonto on March 29 to discuss the contractual obligations, is now reviewing the first draft of the final report, and is very interested in Humble Geochemical Services' examination of the core. Mr. Rauzi reported that Humble offered to do this report at no charge to the state and that a copy will be provided to Commerce. Mr. John Haas advised that there have been no requests for oil and gas leasing in the Alpine area.

Oil and Gas Conservation Commission Minutes

March 11, 1994

Page 3

Mr. Beryl Dulsky, legal counsel, advised that the Commission get evidence of Mr. Mock's authority to commit the \$25,000 to plug the Alpine hole, especially since it was not his department that was assuming responsibility for the hole. He recommended that the evidence of authority be in the form of a letter from the Secretary or Under Secretary that Mr. Mock has authority to commit the \$25,000.

Mr. Veal moved, seconded by Mrs. Worthington:

THAT THE OIL AND GAS CONSERVATION COMMISSION AUTHORIZE MR. RAUZI TO PROCEED WITH THE TRANSFER SUBJECT TO RECEIVING WRITTEN EVIDENCE OF MR. MOCK'S AUTHORITY TO COMMIT \$25,000 AND WRITTEN NOTICE FROM COMMERCE THAT TONTO'S CONTRACTUAL OBLIGATIONS HAVE BEEN FULFILLED

Motion carried unanimously.

CALL TO THE PUBLIC

Mr. Haas advised that Medallion Oil planned to drill a 4,500-foot well in T. 37 N., R. 12 W. within three to four months. He also noted a separate request to lease 100,000 acres near Safford.

STATUS OF #1 AND #2 POWER RANCHES GEOTHERMAL WELLS

Dr. Wilt moved, seconded by Mrs. Worthington:

THAT THE COMMISSION GO INTO EXECUTIVE SESSION

Motion carried unanimously. At 10:45 a.m., the Executive Session began.

The regular meeting resumed at 11:10 a.m.

ANNOUNCEMENTS

Dr. Nations advised that he would write a letter on behalf of the Commission thanking Mr. James Warne for his service to the Commission then reported on recent interest in Precambrian source rock in Arizona. He received a telephone call from Mr. Bill Peabody, Consulting Geologist in Santa Fe, who was looking for someone to give a presentation on Chuar source rocks in the Grand Canyon at the AIPG meeting in Denver.

After further discussion on Mr. Moulton's letter on oil and gas leasing in Arizona,

Dr. Wilt moved, seconded by Mrs. Worthington:

Oil and Gas Conservation Commission Minutes

March 11, 1994

Page 4

THAT THE OIL AND GAS CONSERVATION COMMISSION WRITE TO THE STATE LAND COMMISSIONER RECOMMENDING THAT THE PRIMARY TERM OF OIL AND GAS LEASES ON STATE TRUST LAND BE MORE COMPETITIVE WITH FEDERAL LEASES

Motion carried unanimously.

The next meeting was scheduled for July 8, 1994, in Alpine.

ADJOURNMENT

Mrs. Worthington moved, seconded by Dr. Wilt:

THAT THE MEETING BE ADJOURNED

Motion carried unanimously. Time of adjournment was 11:30.

APPROVED

GUESTS IN ATTENDANCE:

Beryl I. Dulsky Michel Mills John Haas Frank Mancini

Assistant Chief Counsel, Attorney General's Office Attorney General's Office U.S. Bureau of Land Management Arizona Department of Commerce

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POTENTIAL OIL AND GAS PROJECTS

(For review, comment, and prioritization by the Arizona Oil and Gas Conservation Commission) 8 July 1994

1. SUMMARY OF OIL AND GAS PRODUCTION AND POTENTIAL IN ARIZONA

Update Nations and Ybarra to include production and drilling information.

Release as an OG series report (comparable to an open-file report)

2. LIST OF SELECTED REFERENCES ON OIL AND GAS IN ARIZONA

List will probably include 40-50 citations, annotated. Use as companion to item 1.

3. COUNTY WELL-LOCATION MAP SERIES

Update maps done in 1970's. Include selected water wells that might be of interest to an oil explorationist. Contact Dept. of Water Resources to see what they have already published and to determine what information they will provide.

4. SALT DEPOSITS IN ARIZONA

Stress salt as a potential medium for underground storage.

Discuss salt occurrences; describe surface and subsurface geology; discuss attempts by various companies and individuals to develop salt-storage projects; examine gravity anomalies associated with known salt deposits and identify areas with potential for salt that may not have been drilled.

5. DIGITIZED STATE WELL-LOCATION MAP

Provide to Arizona Land Resource Information System (ALRIS); distribute as a digital product - we do not have plotter.

6. AREAL SUBSURFACE STUDIES

Compile existing information; prepare maps; interpret stratigraphic and structural conditions that might relate to oil and gas potential. Include recent drilling, oil seeps and shows, conodont color alteration indices, etc. Concentrate on State Trust and Public land? Possible areas for study: Arizona Strip, Holbrook basin, and Pedregosa basin.

7. SEISMIC RECORDS CENTER

Acquire seismic records of Arizona and establish a repository for use by the public. Use as a companion to drilling records, production statistics, and well cuttings and cores

QUESTIONS FOR THE OIL AND GAS CONSERVATION COMMISSION

Are these the kinds of projects you think we should be doing?

Are any of them inappropriate? Have we omitted any important projects?

In what order should the projects be undertaken?

I will gladly answer any questions you might have. I request that the Commission Chairman consolidate the Commissioners' comments and suggestions and return a single prioritized list to me not later than September 1, 1994.

Larry D. Fellows

Director and State Geologist

Jamy D Fellows

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Activity Regions for July 8, 1994, Aucting

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High Planes Reproduction of Donners planes to person a well near St. Johns within a coupleof weeks. This permit to drill will more than likely be issued by the time of your July & incerting. This well will be drilled to the uses where about 20,000 acres of State Trust land were leaved for oil and gas in February of this year, which brought the total amount of state land under lease to about 58,700 acres. Total foderal land under lease is about 120,406 acres.

hy territorial the Townsian Company, has made several requests for information in the ones south of motion crater and west of Winstow. He fiew in from Tesas on June 14 to review well files then flew on w. Plagstaft that afternoon to, as I recall, check regords at the County Court House Barry Moraly, State Land Department, informed me yesterday that Mr. Townsone had applied for a special prospecting permit to run a surface exploration survey in that area.

Trinch by Kayah Field was asid to Mountain States Petroleum Corporation of Roswell. Here Mexico, effertive May 1, 1994. The sale of this field ends the 38-year presence of Kerr-Method Corporation in Auxona that began in 1956 when it initiated development of the Pinta

The Actiona Department of Commerce notified this office that Tonto Drilling Services but met all contractual obligations on the 1 Alpine-Federal hole. The contract was amended to allow the well in remain applayed and available for transfer to the U.S.G.S.

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Fife Symington

Arizona Geological Survey

845 North Park Avenue, #100 Tucson, Arizona 85719 (602) 882-4795



Larry D. Fellows Director and State Geologist

June 24, 1994

TO:

Oil and Gas Conservation Commissioners

FROM:

Steven L. Rauzi, Oil and Gas Program Administrator

SUBJECT: Activity Report for July 8, 1994, Meeting

One permit to drill was issued since your last meeting. It was issued to Medallion Oil Company on March 30 for the 1-15 Federal in Sec. 15, T. 37 N., R. 12 W. The well was drilling ahead below 3,500 feet at the time of this activity report.

High Plains Petroleum of Denver plans to permit a well near St. Johns within a couple of weeks. This permit to drill will more than likely be issued by the time of your July 8 meeting. This well will be drilled in the area where about 20,000 acres of State Trust land were leased for oil and gas in February of this year, which brought the total amount of state land under lease to about 58,700 acres. Total federal land under lease is about 120,406 acres.

Irv Townsend, the Townsend Company, has made several requests for information in the area south of meteor crater and west of Winslow. He flew in from Texas on June 14 to review well files then flew on to Flagstaff that afternoon to, as I recall, check records at the County Court House. Barry Moody, State Land Department, informed me yesterday that Mr. Townsend had applied for a special prospecting permit to run a surface exploration survey in that area.

Dineh-bi-Keyah Field was sold to Mountain States Petroleum Corporation of Roswell, New Mexico, effective May 1, 1994. The sale of this field ends the 38-year presence of Kerr-McGee Corporation in Arizona that began in 1956 when it initiated development of the Pinta Dome helium field.

The Arizona Department of Commerce notified this office that Tonto Drilling Services has met all contractual obligations on the 1 Alpine-Federal hole. The contract was amended to allow the well to remain unplugged and available for transfer to the U.S.G.S.

Jon Fiegen advised on June 2, 1994, that he forwarded the rules to Elizabeth Stewart with the recommendation that they be certified. I have not yet heard from Ms. Stewart.

All efforts to transfer the 1 Aman well to another state or federal agency as an observation well were unsuccessful. As a result, the State Procurement office was notified on June 20 to proceed with the requisition to plug and abandon the well.

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State of Arizona Arizona Geological Survey

845 North Park Avenue, #100 Tucson, Arizona 85719 (602) 882-4795



Larry D. Fellows Director and State Geologist

Fife Symington Governor

Oil and Gas Conservation Commissioners

FROM:

TO:

Steven L. Rauzi

Oil & Gas Program Administrator

DATE:

May 13, 1994

SUBJECT:

(1) Location of July 8 meeting, (2) County map updates, and (3) proposed

changes to A.R.S. 27-516(A)(3)

As you may recall, your July 8 meeting was tentatively scheduled to be held in Alpine. However, Chairman Nations called on May 10 and advised that in light of budgetary constraints, it would be more appropriate to hold the meeting in Phoenix, again in Room 500 of the Capitol Tower. I will, as usual, mail the agenda and background material for the July 8 (second Friday) meeting two weeks before the meeting.

I am updating the County Well Location Maps. A list of these maps with a proposed title block for the updated maps is enclosed. Please review these proposed title blocks. I would appreciate your input if you have any suggestions or comments on how I have acknowledged the Oil and Gas Conservation Commission in the new title blocks.

Since the maps were first published, the Cochise map (OG-6) has 5 new wells, Graham & Greenlee (OG-10) 11 new wells, Maricopa (OG-3) 22 new wells, Mohave (OG-8) 13 new wells, Pima & Santa Cruz (OG-9) 12 new wells, Pinal (OG-5) 6 new wells, Yavapai (OG-7) 5 new wells, and Yuma-La Paz (OG-4) 29 new wells. These maps make excellent base maps and will be available on a blueline basis. It will be a simple matter to update the mylar (as I do the mylar of OG-12, our most basic tool) as new wells are drilled and thus keep the maps current!

Finally, a proposed statutory change to A.R.S. § 27-516(A)(3) is enclosed. It improves the statute and the Commission's ability to enforce plugging of wells. It allows the Commission to keep the amount of bond low enough to provide incentives to drilling in Arizona yet plainly states who is liable for any costs above and beyond the actual amount of the bond. This or a modified draft, depending on any feedback I receive, will be on the agenda for your July 8 meeting. If you are in agreement with the proposed language and instruct us to proceed with the statutory change, we will initiate the process through the appropriate staff analyst of the Natural Resources Committee to have the bill sponsored and introduced in the next legislative session in January 1995.

MEMO TO FILE

POSSIBLE LANGUAGE FOR STATUTORY CHANGE - OIL & GAS

A.R.S. § 27-516. Rules and Regulations

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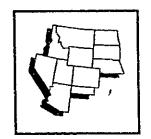
A.3. Requiring a reasonable bond with good and sufficient surety conditioned on the performance of the duties prescribed in paragraphs 1 and 2 of this subsection including the obligation to plug each dry or abandoned well. THE OWNER OR OPERATOR SHALL BE RESPONSIBLE FOR THE FULL COST OF PLUGGING EACH DRY OR ABANDONED WELL. IN THE EVENT THE CWNER OR OPERATOR SHALL FAIL TO PLUG AND ABANDON THE WELL IN ACCORDANCE WITH THIS SUBSECTION, THE COMMISSION MAY FORFEIT THE BOND AND USE THE PROCEEDS FOR SUCH PURPOSES. IN SUCH EVENT, THE COMMISSION MAY SUE THE OWNER OR OPERATOR FOR THE COSTS OF SUCH PLUGGING AND ABANDONMENT IN EXCESS OF THE AMOUNT OF THE BOND AND THE OWNER OR OPERATOR SHALL BE LIABLE FOR SUCH AMOUNT.

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ROCKY MOUNTAIN

REGION REPORT



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NEWSLETTER EDITION

Vol. 67, No. 122 6-24-94

Remote Eastern Arizona Wildcat Projected to Precambrian

IDGEWAY ARIZONA Oil Co, the U.S. operating subsidiary of Calgary-based Ridgeway Petroleum, has scheduled a remote exploratory test in a non-producing area of eastern Arizona about seven miles southeast of St. Johns.

The eastern Apache County wildcat, the 1 Ridgeway/Canstar-Plateau Cattle Co in nesw 15-12n-29e, is set up as a 3055-ft test to Precambrian. Primary objectives are Permian and Pennsylvanian 20nes.

Nonflammable, helium-bearing gas has been produced in the Pinta Dome-Navajo Springs area approximately 50 miles north of the wildcat. The nearest production of hydrocarbons is some 150 miles to the north, at fields on Navajo Indian lands in the northeastern corner of the state.

L&B Speed Drill, Farmington, is

under contract and is expected to spud the wildcat in mid-July.

John B. Somers II, director of Ridgeway Arizona and president of bon reflectance."

Ridgeway has more than 30,000 acres under lease on the St. John's Anticline and the adjacent Cedar

Ridgeway has more than 30,000 acres under lease on the St. John's Anticline and the adjacent Cedar Mesa Anticline, another surface structure. The company is planning to drill a second wildcat in the area this fall in section 3-11n-29e.

Boulder, Colorado-based High Plains
Petroleum Corp, said the prospect is
located on an undrilled surface structure—the St. John's Anticline—
mapped by the U.S.G.S. and the Arizona Geological Survey that has approximately 400 ft of surface closure.
Somers added that Landsat imagery of
the anticline shows "strong hydrocar-

Mesa Anticline, another surface structure. Some resaid the company is planning to drill a second wildcat in the area this fall in 3-11 n-29e, about four miles south of the 1 Ridgeway/ Canstar-Plateau Cattle Cosite.

In 1987, Combined Drilling

(Please see Arizona, Page 2)

NEWSLETTER
DAILY ACTIVITY REPORT

SECTION I



Petroleum Information[®] Corporation

P.O. Box 2612, Denver, CO 80201-2612, 303/740-7100



Rocky Mountain Region Report Section I

6-24-94

Page 2

Australia's Bridge Oil Gets \$263 Million Offer from Enron/CalPERS Partnership

antry Acquisition Corp, Houston, which is wholly owned by Joint Energy Development Investments Limited Partnership (JEDI), intends to make a full cash offer of approximately U.S. \$263 million (Australian \$356.7 million) for Australia's Bridge Oil Ltd.

JEDI is a partnership between a subsidiary of Houston-based Enron Corp's Enron Gas Services Group (EGS) unit and the California Public Employees' Retirement System (CalPERS). It was formed in 1993 to invest in natural gas projects and assets. CalPERS is one of the largest public pension funds in North America, with assets of approximately \$80 billion.

Gantry's offer for Bridge tops a \$208 million bid made last month by Midland-based Parker & Parsley Petroleum Co (PI 5-12-94). Parker & Parsley currently owns approximately 17.5 million Bridge shares, or approximately 4.2 percent of the total number of shares outstanding.

The Gantry offer has been welcomed by Bridge's board of directors, who have recommended that shareholders accept it, providing that no higher offer is received. Upon successful completion of the tender offer, Bridge is expected to operate independently as a stand-alone entity.

At year-end 1993, Bridge listed total proved and probable reserves of 86 million bbls of oil equivalent (BOE), including 54.8 million bbls in the U.S. and 31.2 million bbls in Australia. Production in 1993 was approximately 9.4 million BOE.

Bridge owns properties in Australia, principally in the Cooperand Surat basins, with additional prospective properties in the Northwest Shelf and Otway Basin areas. Bridge Oil (USA) Inc, a wholly owned subsidiary, conducts substantial operations in the U.S., primarily in the Gulf Coast area of Texas. Recently, Bridge completed a \$48 million acquisition of certain Mid-Continent and Rocky Mountain properties from Santa Fe Energy Resources (PI 4-22-94, This Week).

(Arizona, continued from Page 1)

Ventures completed a 3296-ft dry holeseven miles west-southwest of the Ridgeway wildcat at the 1B State 13-92903 in ne nw 28-12n-28e. Prior to completion as a water well, the operator reported drilling difficulties resulting from unconsolidated rock, water flows and caverns. Samples indicated the top of Coconino at 500 ft.

Nine miles southwest of the new wildcat, Tenneco Oil in 1967 completed the 1 Federal-C, se nw 22-11n-28e, as a 1687-ft dry hole. Formation tops at that well include Kaibab at 149 ft, Coconino 511, Fort Apache 1440 and Supai (Permo-Pennsylvanian) at 1556 ft. The wildcat was spudded in Moenkopi from a kelly bushing elevation of 6064 ft. Tenneco reported shows of oil in Fort Apache, but did

not core or drillstem test the wildcat.

The only drilling to Precambrian in the area is approximately 20 miles west of the Ridgeway wildcat, at a 4143-ft dry hole drilled in 1983 by Sumatra Energy at the 1-17 Santa Fe Railroad in nw nw 17-12n-26e. Log tops at this wildcat include Moenkopi at 538 ft, Kaibab 750, Coconino 830, Supai 1123, Fort Apache 2515, Naco (Permo-Pennsylvanian, including equivalent of Paradox group) 2940, Redwall (Mississippian) 3528, granite wash 4016 and Precambrian at 4072 ft.

Sumatra noted oil staining in Moenkopi and Kaibab, and gas shows throughout the Naco and Redwall sections. No drillstem tests were reported.

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and Cuzco. satellite map-making and

tion, materials design applications targeted at improving processes as common and important as welding and casting, and advanced manufacturing software projects relating to satellite technology, automotive air bags, and semiconductors.

The other organizations involved include Boeing Co., Exxon Research, and AT&T Bell Laboratories.

N.W.T.

Canada is assessing exploration interest on 13,700 sq km in the southwest corner of Northwest Territories.

Nominations are due to July 13 at the National Energy Board in Calgary, and pending a response the Northern Oil & Gas Directorate will issue a call for bids on July 30.

The area, surrounding Fort Liard and bounded by British Columbia on the south and Yukon Territory on the west, contains Pointed Mountain gas field. Extending onto the southwestern part of the call area is a gas pipeline that serves Pointed Mountain, Kotaneelee, and Beaver River gas

PERU

A Russian-Peruvian joint venture is starting the first wildcat in a four well program in the Titicaca basin. Yugansk Petro Andes SA

imported a 55 million BU DGU rig and related cementing, electric logging, and towing equipment from Russia's Volgograd Drilling Factory for the project. Depth capacity is 2,500 m.

The combine, formed in February 1994 by Yuganskneftegas, Yugansk, Russia, 75% and Petro Andes SA, Lima, 25%, operates blocks S-2 and S-3 in the Titicaca basin under contract to Petroperu. The combine also seeks to operate Block S-1 midway between Titicaca

Soyuzkarta, Moscow, a

prospecting company that has been studying blocks S-2 and S-3 the past 4 years, has completed 400 km of seismic studies. Petro Andes, formerly VG Exploracion Produccion SA, has been conducting seismic studies on the blocks since signing a contract in 1990.

Peru's oil production in April averaged 124,650 b/d, compared with 117,500 b/d in April 1993.

ARIZONA

Ridgeway Arizona Oil Corp., a subsidiary of Ridgeway Petroleum Corp., Calgary, plans to drill two remote wildcats in northeastern Arizona.

The Ridgeway/Canstar 1 Plateau Cattle Co., in 15-12n-29e, Apache County, is projected to 3,055 ft or Precambrian. It is to be spudded this month.

Objectives are Permian San Andres, Glorieta, and Supai and Pennsylvanian Naco. Penn produces in northern Apache County in the Paradox basin.

The drill site is near the crest of the St. Johns anticline, a 20,000 acre surface structure with 400 ft of surface structural closure. It is situated along the southeast edge of the Holbrook basin, a Permian salt basin that extends from Arizona into west central New Mexico (OGJ, Jan. 5, 1981, p. 117).

Interest in the area was sparked by the 1 Alpine Federal geothermal well in 23-6n-30e, Apache County (OGJ, Jan. 3, p. 52). It encountered free oil, vugular carbonates, and hydrocarbon rich source rocks in Permian Supai.

Shell Oil Čo. and Hunt Oil Co. previously explored the New Mexico side of the basin. That Catron County exploration was based on the similarity of the area to the northwest shelf of the Permian Basin.

Ridgeway's location is 7 miles southeast of St. Johns, Ariz., and 60 miles southeast of Permian helium production in Pinta Dome and

Oil & Gas Journal * July 4, 1994

Navajo Springs fields.

The closest wells are a shallow 1,676 ft Tenneco well in 22-11n-28e that encountered oil shows in all three of the Permian objectives, and a 3,296 ft well drilled by Combined Drilling Ventures in 28-12n-28e that encountered oil shows in Permian Coconino (Glorieta), Supai, and Penn.

Ridgeway's second wildcat is to be drilled in 3-11n-29e, on the south end of the St. Johns anticline 4 miles south of the first well.

Interests in the two wells are Ridgeway 40%, Canstar Ventures Corp. 40%, and a U.S. oilman 20%.

U.S. GULF

Samedan Oil Corp. plans to complete a well on East Cameron Block 331 later this year after installing a platform.

The No. 6 well cut 68 ft of oil and gas pay in four zones as determined from electric logs and sidewall cores. Several additional zones in the well will require further evaluation.

Samedan is operator with a 52.8% working interest. Other owners include Cairn Energy USA Inc. 40% and Continental Land & Fur Co. Inc. 7.2%.

Newfield Exploration Co., Houston, is to start production in third quarter 1994 from a gas discovery on South Timbalier Block 111.

Meanwhile, Minerals Management Service accepted Newfield's bid for adjoining block ST110.

The 2 ST111 well, drilled in late 1993, encountered 62 ft of natural gas pay in three sands. It was completed for 9.1 MMcfd of gas with 22 b/d of condensate through a 15.3/4 in. choke with 5,540 psi flowing tubing pressure from perforations at 15,335-350 ft.

Newfield is obtaining a 3D geophysical survey over the ST110 and 111 and expects to spud a well on the first of two exploration prospects on ST110 by yearend.

INDIANA

Deka Exploration Inc., Oklahoma City, staked two Illinois basin wildcats in nonproducing Jackson County.

Set up as 1,000 ft Silurian tests are the 1 Hill Farms Inc., in 9-4n-3e, 6 miles east of one well South Leesville gas field, and the 1 Ayers, in 21-6n-4e, 23 miles east of Bartlettsville oil and gas field. Petroleum Information reported.

MISSISSIPPI

Fina Oil & Chemical Co. opened Upper Cretaceous Lower Tuscaloosa pay in Camp Shelby field of Perry County.

The 1 USA 17-10, in 17-2n-10w, pumped 345 b/d of 15.6° gravity oil from perforations at 10,863-11,002 ft overall, reports Southeastern Oil Review, Jackson, Miss.

MONTANA

EP Operating LP completed a horizontal wildcat in Richland County.

The 1H Renken, in 11-22n-57e, just south of Putnam oil field, averaged 446 b/d of oil, 6 Mcfd of gas, and 223 b/d of water from Mississippian Madison at 9,143 ft true vertical depth, reported Petroleum Information based on state production figures.

TEXAS

Panhandle

Operators staked remote wildcats in Roberts and Hutchinson counties in the Anadarko basin.

Alpar Resources Co., Perryton, Tex., staked the 3 South Lips 9, in Roberts County 23 miles northwest of Miami. Objective depth is

The spot is 4 miles north of marginal Lard Ranch oil and gas field, Petroleum Information noted.

July 4, 1994 . Oil & Gas Journal

Commission Oil and Gas Policy on Indian and Federal Lands

Up to the present time, it has been the Commission's policy to require non-indian operators drilling or operating oil and gas wells on indian or federal lands in Arizona to obtain a permit to drill from the Commission and to follow the Commission's rules in Title 12, Chapter 7 of the Arizona Administrative Code. This policy allows the Commission to keep track of all drilling activity within Arizona and facilitates assignment of API numbers to new wells. In light of budgetary constraints, however, it was suggested that the Commission review this policy especially with respect to witnessing wellsite activities and tests and performing annual inspections of producing wells on indian and federal lands.

Since I started working for the state in 1988, only one operator, Chuska Energy Company (now Harken Energy), has challenged this policy of the Commission. This challenge was based on Chuska's working arrangement as an operating agent for the Navajo Tribe. Because of its unique arrangement, Chuska did not recognize the Commission's authority over its activities on indian lands and was unwilling to cooperate with the Commission or follow its rules. Subsequent to this challenge to the Commission, however, Chuska Energy started, voluntarily, to cooperate with the Commission and follow its rules, including Commission representation at certain wellsite operations and tests. Chuska's decision to cooperate with the Commission was based, apparently, on the request of the Navajo Tribe. The federal government has never challenged or questioned this policy.

In general, the Commission's policy has included the following field inspection and witnessing activities on indian and federal lands:

- 1 Witness and ensure circulation of cement on surface casing
- Witness and ensure reliability of initial blow-out-prevention-equipment tests
- 3 Witness and ensure placement and integrity of cement plugs upon abandonment
- 4 Witness and ensure reliability of mechanical-integrity tests on saltwater disposal wells
- 5 Annual well inspections to check for hazardous conditions at producing fields

Since the Navajo Nation covers parts of Utah and New Mexico, a summary of these state's policies with respect to federal and indian lands is included for your information.

Utah Department of Natural Resources; Division of Oil, Gas, and Mining

- 1 Have 2,600 producing oil wells and 1,300 producing gas wells in the state
- 2 Federal jurisdiction on federal & indian lands, state receives courtesy copy of federal application
- 3 State has jurisdiction on state and fee lands
- 4 State inspects all wells in state, including federal and indian lands
 - a) Noncompliance found on federal or indian land are referred to appropriate BLM office
 - b) Noncompliance on state and fee lands are enforced by the state
- 5 Assigns API number to wells on federal and indian lands upon receipt of federal application

New Mexico Energy, Minerals, and Natural Resources Department, Oil Conservation Division

- Have 22,000 producing oil wells and 19,000 producing gas wells in state
- 2 Similar to Utah except does not inspect wells on federal or indian lands
- 3 Has field monitoring and inspection staff of 18 with \$664,000 annual budget
- 4 Assigns a block of API numbers to be used for wells on federal and indian lands

* Federal spacing approval on indian lands.

§ 27-502

Enabling Statute
MINER(S. OIL AND GAS

CHAPTER 4

OIL AND GAS

ARTICLE 1. PRODUCTION AND CONSERVATION

Termination Under Sunset Law

The oil and gas conservation commission shall terminate on July 1, 1996, unless continued. See §§ 41-2996.11 and 41-2955.

Title 27, Chapter 4, Article 1, relating to production and conservation of oil and gas, is repealed on January 1, 1997 by § 41-2996.11.

§ 27-502. Declaration of policy

Historical and Statutory Notes

Laws 1977, H.C.Res. 2013, prescribing the energy policy of the legislature, provides:

"Whereas, the present national energy crisis will continue for the foreseeable future; and

"Whereas, the effects of this crisis on the people of the State of Arizona can be alleviated through a balanced state energy policy.

"Therefore

"Be it resolved by the House of Representatives of the State of Arizona, the Senate con-

"That the energy policy of the Arizona State Legislature shall be to:

"1. Assist in obtaining and maintaining an adequate and continuous supply of safe, dependable and economical energy for the people of the state and to accelerate development and use within the state of renewable energy sources in order to promote the state's economic growth, create employment within the state, protect environmental values, husband the state's resources for future generations and promote the health and welfare of the people of the State of Ari-

- "2. Encourage conservation of energy in the construction and operation of buildings and in the rehabilitation of existing structures through heating, cooling, ventilation, lighting, insulation and design techniques and the use of energy audits and life-cycle costing analysis.
- "3. Encourage transportation modes and equipment which conserve the use of energy.
- "4. Encourage the prudent development and wise use of limited energy resources.
- "5. Encourage a new ethic among its citizens to conserve rather than waste precious fuels, and to foster public and private initiative to achieve these ends at state and local levels.
- "6. Encourage state participation for the furtherance of the research and development of alternate energy sources throughout the State of Arizona."

§ 27-515. Powers and duties of commission; fees; compensation of personnel: publication revolving fund

- A. The commission shall administer and enforce the provisions of this article and other laws relating to conservation of oil and gas. The commission may, at any time, enter upon property and inspect wells drilled for oil or gas, and well records, and shall control property, machinery and appliances necessary to gauge the wells. The Arizona geological survey shall provide staff support to the commission to administer the provisions of this chapter.
 - B. The commission may:
- Administer oaths to a witness in any hearing, investigation or proceeding held under this article or other law relating to conservation of oil and gas.
- Issue subpoenas requiring attendance and testimony of witnesses and production of books, papers and records deemed material or necessary, and direct service of subpoenas by a sheriff or other officer authorized by law to serve process.
- 3. Prescribe rules and do all acts necessary or advisable to carry out the provisions of this article.
- 4. Collect such fees as will cover the costs of such services as, but not limited to, reproduction of records or any portion thereof and copies of rules. The monies so collected shall not be subject to the provisions of § 27-523, but shall be transmitted by the

Changes made in 1991 ORB surun in

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MINERALS, OIL AND GAS

§ 27-601

commission to the state treasurer for deposit in the fund from which the expenditure was

- 5. Publish technical maps, cross sections and reports and sell these materials for such fees as will cover the costs incurred in their preparation, reproduction and distribution.
- C. The commission may enter into cooperative agreements with agencies of the United States government, with agencies of state or local government or with Indian tribes for the purpose of protection of the fresh water supplies of the state from contamination or pollution brought about by the drilling of any well or for any other purpose of this article.
- D. The commission may apply for and accept gifts, devises and donations of books, well records, maps or other materials. All donated materials shall become public records.
- E. Monies collected under subsection B, paragraph 5 of this section shall be deposited in the geological survey printing revolving fund and shall be used to prepare, reproduce and distribute further publications. Monies in the revolving fund are not subject to Amended by Laws 1991, Ch. 265, § 4, eff. June 20, 1991; Laws 1992, Ch. 59, § 5.

1991 Reviser's Note:

Historical and Statutory Notes Pursuant to authority of § 41-1304.02, in the section heading "executive director," was delet-

ARTICLE 3. INTERSTATE OIL COMPACT

§ 27-601. Authorization to enter compact

Historical and Statutory Notes

Complementary Legislation Ala.-Acts 1945, No. 91. Ark.—A.C.A. §§ 15-72-901 to 15-72-904. Cal.—West's Ann.Cal.Pub.Res.Code, §§ 3275 Colo.-West's C.R.S.A. § 34-60-123. Fla.—West's F.S.A. §§ 377.01 to 377.05.
Ill.—S.H.A. ch. 96½, ¶ 5301 to 5306.
Ind.—West's A.I.C. 13-5-2-1. Kan.-K.S.A. 55-801 to 55-804. Ky.--Acts 1942, c. 267. La.-Acts 1940, No. 411. Md.—Code, Natural Resources, §§ 6-401 to Mich.—M.C.L.A. §§ 319.301 to 319.303. Miss.—Laws 1948, c. 526. Mont.—MCA 82-11-301 to 82-11-306.

Neb.—R.R.S.1943, Vol. 2A App., p. 804. Nev.-N.R.S. 522 160 et seq. N.Y.-McKinney's ECL § 23-2101. N.D.—Laws 1953, p. 620. Ohio-Laws 1943, p. 203. Okl.—52 Okl. St. Ann. 5\$ 201 to 211. Pa.-58 P.S. §§ 191 to 196. S.C.—Code 1976, § 48-41-10. S.D.—SDCL 45-10-1 to 45-10-6. Texas_V.T.C.A., Natural Resources Code U.S.-July 28, 1955, c. 420, 69 Stat 385; June 30, 1972, P.L. 92-322, 86 Stat 383. Utah-U.C.A. 1953, 40-7-1 et seq. W. Va.-Acts 1945, p. 638. Wyo.—W.S.1977, §§ 30-5-201 to 30-5-204. Va.—Code 1950, §§ 45.1-381, 45.1-382.

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MINERALS, OIL AND GAS

§ 27-601

commission to the state treasurer for deposit in the fund from which the expenditure was originally made.

- 5. Publish technical maps, cross sections and reports and sell these materials for such fees as will cover the costs incurred in their preparation, reproduction and distribution.
- C. The commission may enter into cooperative agreements with agencies of the United States government, with agencies of state or local government or with Indian tribes for the purpose of protection of the fresh water supplies of the state from contamination or pollution brought about by the drilling of any well or for any other purpose of this article.
- D. The commission may apply for and accept gifts, devises and donations of books, well records, maps or other materials. All donated materials shall become public records.
- E. Monies collected under subsection B, paragraph 5 of this section shall be deposited in the geological survey printing revolving fund and shall be used to prepare, reproduce and distribute further publications. Monies in the revolving fund are not subject to

Amended by Laws 1991, Ch. 265, § 4, eff. June 20, 1991; Laws 1992, Ch. 59, § 5.

Historical and Statutory Notes

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ARTICLE 3. INTERSTATE OIL COMPACT

§ 27-601. Authorization to enter compact

Historical and Statutory Notes

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Ark.—A.C.A. §§ 15-72-901 to 15-72-904.
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Colo.—West's C.R.S.A. § 34-60-123.
Fla.—West's F.S.A. §§ 377.01 to 377.05.
III.—S.H.A. ch. 96½, ¶¶ 5301 to 5306.
Ind.—West's A.I.C. 13-5-2-1.
Kan.—K.S.A. 55-801 to 55-804.
Ky.—Acts 1942, c. 267.
La.—Acts 1940, No. 411.
Md.—Code, Natural Resources, §§ 6-401 to 6-404.
Mich.—M.C.L.A. §§ 319.301 to 319.303.
Miss.—Laws 1948, c. 526.

Mont.-MCA 82-11-301 to 82-11-306.

Neb.—R.R.S.1943, Vol. 2A App., p. 804.
Nev.—N.R.S. 522.160 et seq.
N.Y.—McKinney's ECL § 23-2101.
N.D.—Laws 1953, p. 620.
Ohio—Laws 1943, p. 203.
Okl.—52 Okl. St. Ann. §§ 201 to 211.
Pa.—58 P.S. §§ 191 to 196.
S.C.—Code 1976, § 48-41-10.
S.D.—SDCL 45-10-1 to 45-10-6.
Texas—V.T.C.A., Natural Resources Code §§ 90.001 to 90.007.
U.S.—July 28. 1955, c. 420, 69 Stat. 385; June 30, 1972, P.L. 92-322, 36 Stat. 383.
Utah—U.C.A. 1953, 40-7-1 et seq.
W. Va.—Acts 1945, p. 638.
Wyo.—W.S.1977, §§ 30-5-201 to 30-5-204.
Va.—Code 1950, §§ 45.1-381, 45.1-382.

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requiring the deposit of such material and information. Such repository shall be available for the use of the public.

- 9. Receive and expend any monies arising from grants, contracts, contributions, gratuities or reimbursements payable or distributable to this state from the United States, or from state, county, municipal or other governmental sources. The Arizona geological survey shall also receive and expend any monies arising from grants, contracts, contributions, gratuities or reimbursements donated by private persons or corporations. Such monies shall be handled pursuant to § 35–149.
 - 10. Contract and be contracted with.
- 11. Utilize the services and expertise of the universities of the state at the discretion of the state geologist.
- 12. Cooperate with local, county, state and federal agencies. Amended by Laws 1992, Ch. 59, § 3.

§ 27-152.02. Powers and duties of state geologist

- A. The state geologist shall:
- 1. Establish such administrative functions and offices as necessary to achieve the purposes of this article.
- 2. Prescribe the number and professional disciplines of the technical staff and their office and laboratory associates.
- 3. Direct the work of the Arizona geological survey and the formulation of its program and policies.
 - 4. Adopt such rules as are necessary to carry out the purposes of this article.
- 5. Purchase or lease necessary office and laboratory equipment and acquire facilities from the state or lease necessary office and laboratory space.
- 6. Apply for and accept gifts, bequests or legacies of real or personal property or any other contribution, financial or otherwise, for use pursuant to the direction of the donor or, in the absence of an express direction, to be disposed of for the best interests of this state. The state geologist shall honor any restriction imposed by the donor on divulging contributed information or tangible personal property.
- 7. Accept from the federal, state and local governments or their agencies monies made available to this state for the purposes of this article.
- 8. Enter into cooperative agreements with federal, county or municipal governments or their agencies or with any agency or governmental unit established by the law of this or any other state for the purpose of carrying out the provisions of this article.
- 9. Contract with persons and organizations, public or private, to provide services for the Arizona geological survey.
- 10. Appoint a person with a background in oil and gas conservation to act on behalf of the oil and gas conservation commission and administer and enforce the applicable provisions of chapter 4 of this title ¹ relating to the oil and gas conservation commission.
- B. The state geologist or his designee, at any time, may enter upon property and inspect wells drilled for oil, gas, geothermal resources or helium and well records and shall control property, machinery and appliances necessary to gauge the wells.

Amended by Laws 1991, Ch. 265, § 3, eff. June 20, 1991; Laws 1992, Ch. 59, § 4.

¹ Section 27-501 et seq.

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Agenda item 5



Fife Symington Governor State of Arizona

Arizona Geological Survey

845 North Park Avenue, #100 Tucson, Arizona 85719 (602) 882-4795

June 30, 1994



Larry D. Fellows Director and State Geologist

Mr. Bimal Shrestha
Navajo Nation Minerals Department
P. O. Box 1910
Window Rock, Arizona 86515

Dear Mr. Shrestha:

Called 6-30 teguested copy of AoGCC tules Asked if AoGCC still existed

A copy of the Oil and Gas Conservation Commission's oil and gas rules are enclosed. The Commission revised its rules on salt-water disposal, enhanced recovery, and storage wells. I have also enclosed a copy of these revised rules. They have yet to be certified by the Attorney General, but I expect them to be certified sometime this year.

For your information, administrative and staff support for the Oil and Gas Conservation Commission was transferred to the Arizona Geological Survey in 1991. The five member Commission, however, still exists. Also for your information, the Commission's next meeting will be held on July 8 in Phoenix. Please feel free to attend this meeting if you wish. The Commission would welcome your attendance and participation. I have enclosed a copy of the agenda for that meeting.

Please let me know if I may be of any further assistance.

Sincerely,

Steven L. Rauzi

Oil & Gas Program Administrator

Enclosure

Agenda iten 6 X

Oil & Gas Exploration Incentives

This subject is included as an agenda item for your discussion because economic incentive bills to stimulate oil and gas activity have recently been passed in several oil producing states, most notably, Texas. In addition, Mr. Lanshe inquired about ways to stimulate activity in Arizona. A copy of the Texas incentive package was mailed to you in April. Wyoming, Montana, and Oklahoma have also passed economic incentive bills. Information on the bills passed in Wyoming and Oklahoma is attached as are some general remarks on the philosophy of incentives made by Phillip Carroll, President & CEO of Shell Oil Company.

When oil producing states like Texas, Oklahoma, Wyoming, and Montana start passing economic incentive bills, it makes it tough for predominantly wildcat states like Arizona to compete for tight exploration budgets. In fact, Arizona had a tough time competing for exploration funds even before the oil producing states enacted incentive bills. This is true because most companies are sticking close to the "bread and butter" areas, that is, close to known occurrences of production in order to reduce the risk of exploration. Obviously, a healthy increase in the price of crude oil, or a discovery of oil or gas in the state, would be the best incentive to stimulate exploration in Arizona. In the meantime, Arizona should be aware of the economic incentives passed in several of the major oil producing states.

The economic incentive bills in Montana, Wyoming, Texas, and Oklahoma were passed to stimulate enhanced recovery projects, workovers, recompletions, the return of inactive wells to production, and new field discoveries. Since Arizona has not had a discovery since the early 1970's and all production in Arizona is on indian lands, an economic incentive to stimulate new discoveries off indian lands makes the most sense for Arizona. As a result, that part of the economic incentive bills dealing with the stimulation of new field discoveries is summarized in the following paragraph.

The Montana Legislature passed a 12-month tax holiday for new conventional vertical completions between January 1, 1994, and December 31, 2001. The Wyoming Legislature passed a four percent severance tax reduction for two years for any newly drilled well producing up to 40 barrels of oil per day or gas equivalent. The Texas Legislature passed a \$10,000 per well tax credit for new field discoveries drilled in 1994. The Oklahoma Legislature unanimously passed a bill providing for a temporary holiday from most of the state's 7% gross production tax for new wells drilled to more than 15,000 feet.

An economic incentive to stimulate new field discoveries off indian lands would be the most appropriate for Arizona. In the past, the Commission has considered two types of economic incentive bills. One was a \$250,000 to \$500,000 bonus for the first commercial well off indian lands and the other was a dry-hole support bill wherein a certain sum per foot drilled was paid to the operator for a dry hole properly plugged and abandoned. Neither of these bills were successful; a Yuma legislator labeled the bonus bill unconstitutional, whereas it was feared that the dry-hole support bill would lead to drilling of wells based on political and not geologic merit, i.e. the drilling of wells in areas where there was virtually no chance of finding oil.

Thus, the best type of economic incentive bill would be one patterned after those bills passed in the aforementioned oil states, namely a temporary or permanent tax holiday, credit, or reduction. Importantly, this type of bill may have the necessary appeal in the legislature as well.

Oil & Gas Exploration Incentives Page 2

Keep in mind that reasonably low bond amounts, liberal leasing terms for State Trust land, and reasonable environmental regulation are also incentives to industry. An effective program to attract industry to the state will need to involve a cooperative effort of all state agencies. No program is effective if one agency encourages industry activity while another is throwing up unnecessary roadblocks.

As part of an overall program to attract industry attention to the state, it may be beneficial for Arizona to be present and recognized at industry-related meetings such as the annual meeting of the Interstate Oil and Gas Compact Commission. Several industry associations such as the Independent Petroleum Association of Mountain States offer informal, informational gatherings in conjunction with these meetings. Arizona's participation in such gatherings would contribute to the recognition of Arizona in the industry. It would also help keep the Commission abreast of trends, both positive and negative, affecting the oil and gas industry and give the Commission a higher profile in the industry. In the past, the Governor had appointed a member of the Commission to represent and be an advocate for Arizona at these meetings. The IPAMS invitation is attached. Solution Mining Research Institute - April 25-27 - Houston AAPB Arizona discussion on Precumbrian HC Source

Finally, any program to attract industry to Arizona should include general articles summarizing and highlighting oil and gas occurrence and potential in Arizona. Along this line, I send *Oil and Gas In Arizona* by Nations, Brennan, and Ybarra, to individuals who call and express a serious interest in the hydrocarbon potential of the state. This article does an excellent job of summarizing the geologic framework of the state. A similar publication, *Oil, Gas, and Helium in Arizona*, was prepared by the Commission in the early 1960's. This publication summarized the geologic framework, drilling problems, leasing, pipelines, and the economic and tax atmosphere in Arizona and was distributed free of charge to the industry. The material on drilling problems, leasing, and the economic and tax atmosphere in Arizona could stand to be updated. Another general publication of note is *Energy Resources of Arizona*, by Duncan and Mancini. This down-to-earth publication by the Arizona Geological Survey provides a good nontechnical summary of the energy resources of Arizona. The title pages of these three articles are attached.

There are other reports that may be considered to persuade someone that there is a realistic potential of discovering commercially viable quantities of oil and gas in Arizona.

In summary then, a program to attract industry attention to Arizona should include:

- 1 Economic incentives such as tax holidays, reductions, or credits
- 2 Cooperative efforts by all state agencies to avoid unnecessary regulatory burdens
- 3 Attendance at industry-related meetings to give a higher profile to the Commission
- 4 General and other publications on occurrence and potential in Arizona.

Wyomi g Legislature Overrides Governor's Veto, Passes Oil and Gas **Economic Recovery Act**

OTH HOUSES of the 52nd Wyoming legislature voted to override Gov. Michael Sullivan's veto of House Bill 288, the Oil and Gas Economic Recovery Act, a measure that will become law on July 1, 1993.

Provisions of H.B. 288 as amended include a four percent severance tax reduction for two years on production resulting from an approved workover or recompletion commenced between July 1, 1993, and December 31, 1996. The same reduction also applies to any newly drilled well, except horizontal and collection wells, for up to 40 bbls of oil per day (or equivalent in gas, calculated at 6,000 cu ft/bbl).

The two-year severance tax reduction will remain in effect unless the price for the new production is equal to or exceeds \$25/bbl or \$2.75/Mcf for six

The legislature's vote marks only the third time since 1888 that a governor's veto has been overridden in Wyoming. In 1991, the 51st Legislature overrode Gov. Sullivan's veto of the Wildcat Well Tax Incentive bill. That measure provided for a four percent severance tax reduction for the first four years of production on wildcat wells completed between 1991 and 1994.

> Thoughts to remember. "No one should be asking for incentives that provide a windfall, or simply a handout. But we would be foolish not to fight for incentives that benefit the economy, pay for themselves, and bring new production to market—instead of throwing away resources.

> "Without government and industry pulling together, billions of barrels of oil and gas reserves will remain in the ground. Thousands of jobs will never be created. And the distressing decline of America's oil and gas industry will continue.

> "Industry and government can and must work together. And we as industry must work together to see that this happens."—Philip Carroll, president & CEO, Shell Oil Co., Washington, D.C., April 11, 1994.

> > WORLD OIL / JUNE 1994 35

Okla. solons approve oil, gas incentives

Oklahoma's legislature has unanimously passed legislation providing significant incentives for new drilling and production in the state.

Legislation

Senate Bill 841 passed 46-0 in the Senate and 99-0 in the House late last

It is expected to be signed soon by Gov. David Walters.

The measure provides a temporary holiday from most of the state's 7% gross production tax on new incremental oil and gas produced from current leases. It

also provides for a 28 month window in which producers can apply for gross production tax credits if they:

• Return wells to production that have been inactive for as much as 2 years.

 Conduct qualifying workover or recompletion techniques that increase current production. • Drill new wells to more than 15,000

The bill also repeals the conservation excise tax on natural gas, a portion of state tax that increases taxes on gas production, when the wellhead price of gas drops below \$1/Mcf.

June 13, 1994 • Oil & Gas Journal

COMPARISON OF OIL AND GAS LEASE TERMS

	ANOZEA	UTAH	COLORADO	NEW MEXICO	
100	\$100.00	\$30.00	\$20.00	\$30.00	•
Annual Lense	\$1.00 per acre \$40.00	\$1.00 per acre \$20 minimum.	\$1.50 per acre	\$.10-\$1.00 per acre. \$100 minimum.	(),
Size of Leasable Tract	Each lease contains no more than 2,560 acres (6 inject square).	Each lease contains no more than 2,560 acres or four sections.	Each lease has a maximum of 640 acres.	Each lease contains no more than 2 sections of land.	,
Lease Term	Initial 5 year term. Second 5 year term is \$2,00 per acre.	Initial 10 year term.	Lease issued for 5 years with a one time renewal for one year at \$10 per acre.	Initial 5 year term. Second 5 year term has double the rental fee.	
Royaity	12.5%. Shut in royalty for gas is \$1.00/acre for year 1, \$2.00/acre for year 2 and \$3.00/acre for year 3, 4 and 5.	12.5% after 10 years annually increases 1% to a maximum of 16 2/3%.	12.5% of fair market value at the well or price received by lessee at the well, whichever is greater. Shut in royalty is \$2.00 per acre.	Varies from 12.5% to 20% depending on whether wildent or development well.	\bigcirc .
Bond Requirement	Note R12-7-103 \$10,000 10,000' or 1855 \$20,000 7 10,000' \$25,000 blanket	Mell Depth Bond Ampling 0-1, no. 0 31 0.00 32 0.00 52	\$5,000 per well with \$25,000 blanket bond.	Minimum of \$10,000 per lense.	

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Federal lease terms: \$75 fee, \$1.50 per ack Hental, primary 10 year term

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IPAMS

Independent
Petroleum
Association

of Mountain States

OFFICERS & STAFF

Paul J. Zecchi
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Carter G. Mathies
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Vice President
Karen Ostrander-Krug
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◆ 518 17th Street ◆ Denver, Colorado, 80202-4167. ◆

280 Denver Club Building ◆ 518 17th Street ◆ Denver, Colorado 80202-4167 ◆ 303/623-0987 ◆ FAX: 303/893-0709

20 June 1994

Steven L. Rauzi
Oil & Gas Conservation Commission
845 N. Park Avenue, #100
Tucson, AZ 85719
Fax: 602/882-4795

Dear Steven,

The Independent Petroleum Association of Mountain States (IPAMS) is a multi-state trade association representing the petroleum industry in the Rocky Mountain region. Our perspective is that of the independent producer, whose only source of income is the wellhead.

IPAMS and Union Pacific Resources Co. (UPRC) would like to invite you and your staff people to join us for an informal, informational buffet lunch on Sunday, June 26, at the Beaver Run Resort during the Interstate Oil and Gas Compact Commission (IOGCC) mid-year meeting.

11:30 a.m., June 26 Beaver Run Resort, Mercury Deck

We look forward to visiting with you informally about issues of particular concern to the Rocky Mountain region.

Please call IPAMS at (303) 623-0987 to let us know if you will be able to join us, and if you have any specific issues you would like the group to discuss.

William Control of Section

Sincerely,

Karyn L. Plank Executive Director in Jenney, J. P., and Reynolds, S. J., 1989, Geologic evolution of Arizona: Tucson, Arizona, Cological Society Digest 17, p. 795-815.

OIL AND GAS IN ARIZONA

by
J. Dale Nations
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Northern Arizona University
Flagstaff, Arizona 86011

Daniel J. Brennan Arizona Oil and Gas Conservation Commission Phoenix, Arizona 85015

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Arizona Oil and Gas Conservation Commission
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ABSTRACT

All oil and natural gas production and known reserves in Arizona are in the Paradox Basin located in the extreme northeastern corner of the state. Seventy-four wells have produced oil in 13 fields or producing areas from reservoir rocks of Devonian, Mississippian, Pennsylvanian, and Tertiary ages. The Dry Mesa, East Boundary Butte, Teec Nos Pos, and Dinch-Bi-Keyah are the only currently producing fields. The monthly production for December 1987 from all these fields was 10,195 barrels of oil (BO) and 13,158 thousand cubic feet of gas (MCFG). Cumulative production from 1954 through 1937 was 19,367,216 BO and 18,734,761 MCFG.

Approximately 1,000 exploratory and development wells have been drilled in Arizona. Exploratory drilling during the past 10 years

Approximately 1,000 exploratory and development wells have been drilled in Arizona. Exploratory drilling during the past 10 years was spread widely across the state and was based on a variety of exploration concepts. Several of the exploratory wells drilled since 1980 were to test the theory that the Laramide overthrust belt extends across Arizona. Nine wells were drilled on this trend, all within the Basin and Range Province or Transition Zone. Several other wells were drilled in the state, the most significant of which were three on the Colorado Plateau and three in the San Luis-Foruna Basin.

The areas that are considered to have potential for future discoveries are the Paradox Basin, Black Mesa Basin, Holbrook Basin, Pedregosa Basin, San Luis-Fortuna Basin, the "Arizona Strip" north of the Grand Canyon, and Tertiary basins of southern Arizona.

INTRODUCTION

The objectives of this paper are to summarize the available information on oil and natural gas occurrence and production in Arizona and to discuss recent exploration activity and areas of oil and gas potential. The references cited will lead the interested reader to more detailed discussions of the geology and oil and gas potential of specific areas.

The division of the State into three distinct structural provinces, the Colorado Plateau, Transition Zone, and Basin and Range, and their included basins imposes a logical organization on any discussion of Arizona oil and gas occurrence (fig. 17). The Colorado Plateau, which contains all production to date, is discussed first within the context of production by stratigraphic units and future potential. This is followed by a discussion of the oil and gas potential of the Basin and Range portion of Arizona

including the Pedregosa and the Altar-San Luis Basins. Last in the order of discussion is the Transition Zone of central Arizona (fig.17).

Based on production history, Paleozoic rocks have the greatest potential for future discoveries in Arizona. However, Mesozoic rocks have some potential, particularly in the Black Mesa and Pedregosa Basins. Cenozoic sedimentary rocks of predominantly nonmarine origin in closed basins of the Basin and Range Province and the Transition Zone may have some potential. Even Proterozoic rocks in the Colorado Plateau Province may have some potential, according to recent research and exploration activity (Reynolds and others, 1988).

The accumulation of oil and gas in economic quantities occurs only under geologic conditions that provide the necessary source rock, reservoir rock, structure, and permeability barriers. These geologic conditions are

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OIL, GAS and HELIUM IMARIZO Published by Arizona Development Board for the
Arizona Oil and Gas Conservation Commission

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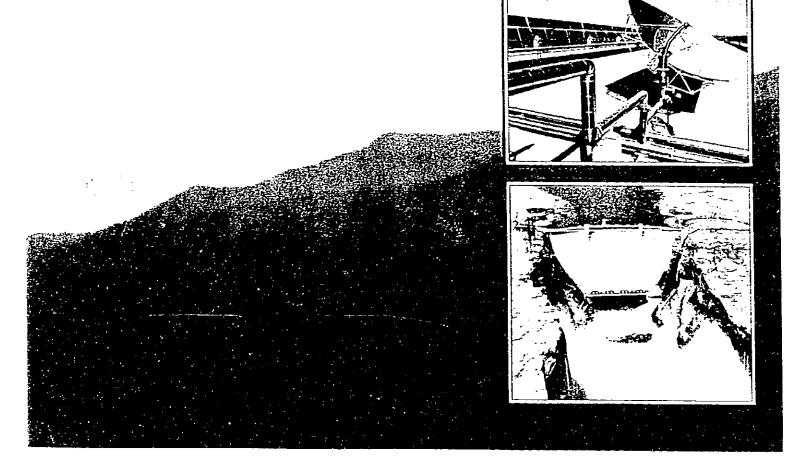
John T. Duncan and Frank P. Mancini

ENERGY RESOURCES OF ARIZONA

ARIZONA GEOLOGICAL SURVEY DOWN-TO-EARTH SERIES 1







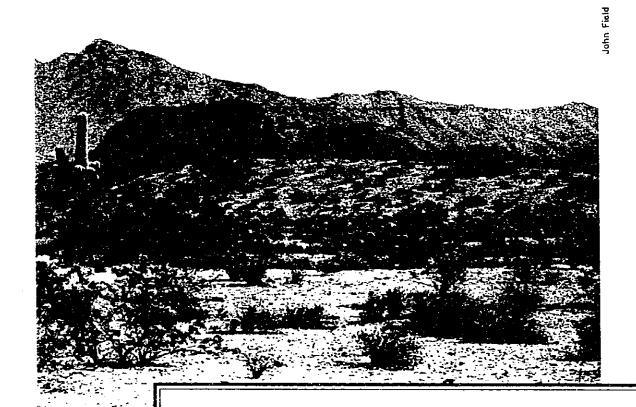


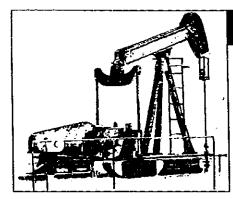
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William Park

THE TEXAS INCENTIVE PACKAGE





THE RAILROAD COMMISSION OF TEXAS

LAMES E. (JIM) NUGENT, CHAIRMAN * MARY SCOTT NABERS, COMMISSIONER * BARRY WILLIAMSON, COMMISSIONER

Texas has over 7,000 companies with active oil wells. Some 3,300 of these companies (47%) produce less than one barrel a day from each well. Each of these companies makes less than \$40,000 a year from all the oil produced from all their wells. These small producers are vital to Texas. Of the state's 184,000 producing oil wells, over 130,000 produce less than 10 barrels of oil a day.

INCENTIVE FOR ENHANCED OIL RECOVERY

Description and Results. The first Texas incentive legislation, approved in 1989, provided a 10-year, 50% severance tax exemption for all oil produced from new secondary and tertiary recovery projects. To encourage rapid development, new projects had to be approved by December 31, 1993. Before the tax break is granted, an operator must prove the rate of production under a new EOR project exceeds that which could have been expected without the project. In 1991, the legislature expanded the incentive to include a 50% severance tax break for incremental production from old projects that were enhanced or modified to produce additional oil. As before, the increased production rate must be proven.

To date, 743 projects have been approved which are expected to produce over 945 million additional barrels of oil over their lifetimes.

Tax and Revenue Implications. Although we cannot say exactly how many projects would have been undertaken without this incentive, we can say that:

- Savings to industry from the tax reduction will be \$322 million over the lifetime of the projects.
- 2. Texas will collect a matching \$322 million in severance taxes, much of which might not otherwise have been collected without the incentive.
- 3. Approximate sales tax collections from the economic value of the additional oil will be \$820 million. Ad valorem taxes at the local level will increase by \$736 million.

Application at the Federal Level. Federal tax incentives for secondary and tertiary recovery projects are already in place. However, definitions in the tax code should be broadened to include the advanced geological and geophysical recovery technology being used by industry today. Since each level of recovery gets progressively more expensive, increasing the depletion allowance from one level of recovery to the next would serve as a federal tax incentive for new projects.

INCENTIVE FOR INACTIVE WELLS

Description and Results. This Railroad Commission incentive targets the 80,000 inactive wells in Texas. Computer analysis shows the longer a well is inactive, the greater the probability it will never produce again. In 1992, only 368 of the 80,000 wells were brought back into production after more than three years of inactivity. Under the incentive, operators are offered a 100% severance tax exemption for 10 years on production from wells that have been inactive for more than three years. Wells must be certified between September 1, 1993 and August 31, 1995. This two-year certification period prevents operators from deliberately shutting-in wells to qualify for the incentive.

The results of this incentive program have been spectacular. In just the first six months,1,464 wells have been reactivated—almost quadruple the pre-incentive number for all of 1992. Going beyond the economic benefits discussed below, everywell we return to production means one less well that might cause pollution and plugging problems.

The leady incentiv	e lackage &	
	TABLE I	
Texas	INCENTIVE FOR INAC	TIVES
	7592	1993-1994
Note Describe as Described	(Before Tax Incentive)	(First & Months of Incentive)
Wells Returning to Production	ı 286	1,114
Oil Gas	200 82	350
Total	368	1.464
I Utal	300	
Total Annual Wellhead Value	for	
Oil Wells	\$ 23,717,408	\$92,381,792
Gas Wells	\$ 16,781,751	\$ 71,629,425
Total Value	\$ 40,499,159	\$ 164,011,217
Severance Tax Collect	ted \$2,483,345	\$185,110
Ne	t Severance Tax Loss	\$2.3 Million
1	t Wellhead Gain	\$123.5 Million
T1 A Fa Value	. f	***************************************
Total Annual Economic Value Oil Weils	-	\$268,831,015
Gas Wells	\$69,017,657 \$48,834,895	\$208,441,627
Total Economic	\$40,034,073	\$200,771,02/
Value	\$117.852.552	\$477.272.642
Sales Tax Collected	\$2,357,051	59.545.453
Ad Valorem	\$5,001,001	27,5750
Tax Collected	\$2,161,035	\$8,751,638
1	4-7	
1	t Sales Tax Gain	\$7.2 Million
1	t Ad Valorem Tax Gain	\$6.6 Million
Ne	t Economic Gain	\$359.4 Million
Total Annual Production/We	ell (Assumed same for 1992	. at 1993-94)
	Oil	Casinghead
Oil Wells	11.6 BBL/DAY	26.6 MCF/DAY
	Gas	Condensate
Gas Wells	264 6 MCF/DAY	21 BBLS/DAY

Tax and Revenue Implications. Table 1 shows the overall economic benefits from the first six months of this incentive program. Although the state forgoes \$2.3 million in net severance tax revenue, the net sales tax gain of \$7.2 million more than compensates because the economic value of the additional production results in taxable purchases. Further, local taxing entities receive a net ad valorem tax gain of \$6.6 million and the state benefits from a net economic gain of \$359.4 million.

There's an important lesson to be learned from this and other tax incentives. In the past, legislators may not have looked beyond the front-end severance tax loss and may have killed the incentive. Today, however, the Texas legislature recognizes that the \$359.4 million in economic benefits to be gained from the wells in this program is more important to the state's economy as a whole. Legislators also recognize that the net gain in sales tax collections on the wealth created more than compensates for the severance tax loss. Besides, most of these wells would have remained inactive without the incentive, generating no tax revenue at any level.

Application at the Federal Level. Projecting Texas figures to the national level, there may be as may as 300,000 inactive wells across the country. Probably very few of them will return to production without an incentive. Therefore, the potential federal revenue loss from a tax incentive would be small. On the positive side, removing federal taxes on production from currently inactive wells would be a tremendous incentive. The estimated federal relief would be \$2 a barrel, almost triple the successful Texas incentive of about \$.69 a barrel.

Table 2 shows potential response to such a federal incentive. Some 17,568 wells would return to production. Oil from these wells would generate a net economic gain of \$5.3 billion and a net indirect tax gain of \$525 million. Remember, the potential income tax loss will be limited to the tax collections from the small population of pre-incentive inactive wells that would have returned to production on their own.

table 2 Sample Federal Incentive for Inactives					
	Pre-Incentive (Based on 1992 Texas data)	With Incentive (based on Texas' bx 6 months)			
Wells Returning to Production	n				
Oil	1,114	4,456			
Gas	328	1,400			
Total	1,472	5,856			
Direct Income Tax for		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
1,472 base wells	Net Direct Tax Loss	\$23 Million			
Total Annual Wellhead Valu	e for	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Oil Wells	\$94,869,632	\$369,527,168			
Gas Wells	\$67,127,004	\$286,517,700			
Total Value	\$161,996,636	\$ 656,044,868			
<u> </u>	Net Wellhead Gain	\$494 Million			
Total Annual Economic Val	ue for	**************************************			
Oil Wells	\$276,070,628	\$1,075,324,060			
Gas Wells	\$195,339,580	\$833,766,508			
Total Economic					
Value	\$471,410,208	\$1,909,090,568			
	Net Economic Gain	\$1.4 Billion			
Indirect Income Tax	Net Indirect Tax Gain	\$175 Million (mind 3125194)			

NOTES:

1. Production rates used in calculations:

oil well: 11.6 barrels of oil/day 26.6 mcf of casinghead gas/day

26.6 mcf of casinghead gas/da gas well: 264.6 mcf of gas well gas/day 2.1 barrels of condensate/day

Direct income tax on production estimated at \$2 barrel of oil and \$0.30 mcf of gas.
 Indirect income tax uses a conservative 50% of economic value (after dropping out original wellhead value) as the tax base multiplied by a 28% tax rate.

Marie Care

The Texas Incentive Package

We recognize that federal budget constraints may cause legislators to focus on the small tax revenue reduction and discount the larger revenue increase from the greater indirect income tax base created by the incentive. Therefore, we offer the following alternative incentive program. While not as powerful, it does insure the federal government would not lose money.

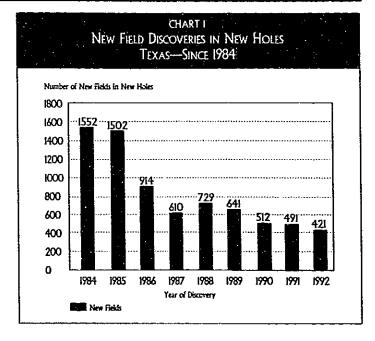
This program sets a threshold level of returning inactive wells. No producers would receive a tax break until the threshold is reached. The approach insures a net revenue gain to the treasury while still providing an incentive. Here's how it would work. Assume that 1,250 of the 300,000 inactive wells would come back on their own without any incentive program. Set the tax incentive at a threshold level of double that amount—2,500 wells. When that level is reached, federal taxes on the oil production would be cut 45%. Because the tax base has increased 50%, there is a net increase in federal revenue of 5%. Other thresholds could be structured so that additional wells increase the benefit. At 5,000 wells returned to production, the net revenue from the production might be 98% exempt from tax; or, the wells might be given a 98% depletion allowance for 10 years.

Again, the first threshold is set sufficiently high to ensure federal tax revenue will not be lost. Additional thresholds encourage more production, more economic gain, and more indirect tax gain.

INCENTIVE FOR NEW FIELD DISCOVERIES

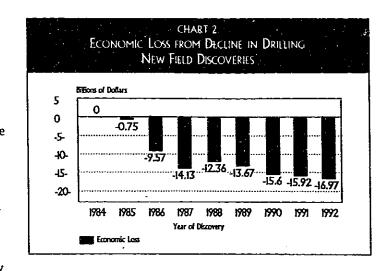
Description and Results. Chart 1 shows the decline in new field discoveries in Texas since 1984. Chart 2 shows the economic effect of the sustained decline. Note that the drop from 1,552 to 421 new field discoveries represents an economic loss of almost \$17 billion for the year 1992 alone. The total Texas economic loss over the last eight years is almost \$99 billion.

To encourage drilling for new field discoveries in Texas, we have implemented a threshold incentive system for calendar year 1994 similar to that suggested earlier. The base level for the program is the 421 discoveries in new holes recorded during 1992. The first threshold is set at 521 discoveries. If that level is reached during 1994, each operator of a discovery well receives a \$10,000 severance tax credit. If 721 discoveries are made, each discoverer receives a total of \$25,000 in tax credits. The third and final threshold is reached at 842 discoveries (twice the 1992 level). At this level, each discoverer receives the original \$25,000 tax credit, plus an additional \$25,000 credit for each well drilled into the discovery



reservoir during the next 10 years—no matter who drills it. Thus, a discovery field that had 100 new wells within 10 years would yield over \$2.5 million in tax credits for the discoverer. An attractive aspect of this incentive is that the credits can be applied toward state severance taxes on production from any well in any field. They are fully negotiable, and may be sold or transferred to others. To encourage drilling, discoveries in an existing wellbore are not eligible for the tax exemption.

It is still too early to predict ultimate results from this incentive. Wells begun at the start of the year are only now being completed and reported to us. Within the past few weeks we have approved 11 new field discoveries.



March Mc 9 Co.

Tax and Revenue Implications. Table 3 shows that Texas does not lose revenue with this incentive. By the time the first threshold of 521 discoveries is reached, Texas will forego \$5.2 million in severance tax revenue. However, the net tax revenue will be up almost \$40 million from the added fields; and, the production from the fields will have created \$1.5 billion in additional wealth.

Application at the Federal Level. This new field tax incentive approach could be easily adapted for federal use. To establish a base level, you could sum the new field discoveries in all the states during 1993. Assume that this many discoveries would be made without any incentive. The first federal incentive threshold could be set 10% higher than this base level. When new field discoveries increased by 10%, discovery well operators would receive an 8% reduction in federal tax. As a further incentive, a target percentage increase in new field discoveries could be set for the year. If industry finds X% more fields than were found in the base year, discoverers would receive a tax reduction of X% - 5% for a given period of time. In other words, if industry found 50% more new fields, production from the discovery wells would receive a deduction of 45% of the taxes due.

Our research shows that each new field that is discovered conservatively represents an economic stimulus of \$15 million over time. Projecting Texas numbers to the national level, a 50% increase in new field discoveries across the nation would pump \$12.63 billion into the national economy. The 421 new field discoveries in Texas in 1992 would translate to 1,684 U.S. discoveries. A 50% increase would be 842 additional fields at \$15 million a piece, or \$12.63 billion in economic stimulus. No federal

	New Fiel	able 3 d Discove mic Benefit			• .
New Fields Discovered	up to:	- 521	721	842	
Cost of Tax Credits/Well	\$0	\$10,000	\$25,000	\$25,000 plus	
Total Cost of Tax Credits	\$0	\$5.2M	\$18M	\$93.4M	
Net Tax Gain	<\$44M	\$39.8M	\$117M	\$143M	
Economic Benefits	<\$1.5B	\$1.5B	S4.5B	56.3B	

tax revenue is compromised. The incentive would generate new drilling activity and create new wealth that would not otherwise have existed.

Conclusion. In Texas, we were faced with a choice: do nothing and watch more jobs disappear as the domestic oil and gas industry declined; or, enact common sense incentives to encourage drilling activity and generate revenue for the state. We chose to act. More importantly, we chose to take steps that are creating jobs and economic opportunity for the people of Texas.

The nation is faced with the same choice. Exporting energy jobs and increasing oil imports is not in our national interest. The Clinton Administration and Congress have the chance to decide. We believe the "Texas Incentive Package" is a helpful model for leaders in Washington to follow. We are hopeful you will choose wisely.

ECONOMIC CALCULATIONS AND DEFINITION OF TERMS

A. All examples in this package assume a price of \$15 per barrel of oil and \$2 per thousand cubic feet (Mcf) of natural gas.

B. Weilhead value equals the volume of oil or gas produced by a well times the value of the commodity. Thus, an oil well producing 10 barrels a day would produce \$150 per day in wellhead value.

C. Severance taxes are collected on wellhead value. In Texas, severance taxes are 4.6% of the wellhead value of oil and 7.5% of the value of gas. For an oil well producing 10 barrels a day, the severance tax on its production would be \$6.90 a day, or \$.69 a barrel.

NOTE: Operators pay roughly \$2-3 per barrel of Texas oil and \$.30 per Mcf of gas to the federal government in income taxes.

D. Economic value of oil and gas is calculated by applying an economic multiplier of 2.91 to the wellhead value. Economists at the Texas Comptroller's office have developed this multiplier to calculate the

impact of oil and gas production on the state's economy. Our sample 10 barrel-per-day well would provide economic value of \$436.50 a day, or \$159,322 a year.

E. Sales tax revenue accrues to the state from the economic value of oil and gas produced. The amount of tax can be roughly estimated by multiplying the wellhead value of production by 2%. Our example oil well that generates \$6.90 in severance tax daily also creates economic value that generates \$8.73 in sales tax each day, or \$3,186 annually. Sales tax collections on the economic value created should exceed severance tax collections no matter what the price of oil or natural gas.

F. Ad valorem local property taxes are also levied on Texas oil and gas production. To estimate the net revenue from a well, we multiply the wellhead value by .667. The ad valorem tax generally is 8 to 10% of the net well revenue. Our example well would pay \$8 a day in ad valorem taxes, or \$2,920 annually.

Montana Board Proposes Expanded Tax Incentives Program...

...Issues Orders Following March Hearings

HE MONTANA Board of Oil and Gas Conservation will meet in public session beginning at 1:00 pm, Thursday, May-12, in the Oil & Gas Division Conference Room, 2535 St. Johns Avenue, Billings, to consider adoption of new rules pertaining to certification of horizontal wells and enhanced recovery projects for tax relief.

Among the proposed new rules is one which would allow tax credit certification for any well which had not produced for five or more years, or which had been permanently plugged prior to its reentry and completion as a horizontal well.

The board has proposed that new or expanded secondary and tertiary recovery projects be granted tax relief upon certification by the board. The new rules would also provide standards and fees for evaluation of applications for new secondary/tertiary recovery projects.

For additional information, contact Tom Richmond with the Department of Natural Resources and Conservation, Oil and Gas Division, 2535 St. Johns Avenue, Billings, Montana 59102. Phone is (406) 656-0040. Interested parties may submit data, views or arguments concerning the proposed rules in writing to Mr. Richmond no later than May 16.

The Montana Legislature, in a special session late last year, passed a tax incentives bill (SB 18) which provides for lower net proceeds tax and severance tax rates on certain

high-cost wells and projects.

Under the provisions of SB 18, secondary recovery projects which begin active operations between January 1, 1994, and December 31, 2001, receive a reduction in local government severance tax or net proceeds tax, from 8.4 or 7.0 percent, respectively, to 5.0 percent, on the incremental increase in production above certified decline rates. States everance tax was reduced from 5.0 to 3.0 percent on this production.

Tertiary projects initiated during the above time frame receive a reduction of 1.7 percentage points (from 5.0 to 3.3 percent) on local severance tax, and 3.7 percentage points (from 7.0 to 3.3 percent) on net proceeds tax for incremental production. State severance tax for this incremental production was dropped from 2.5 to 2.0 percent.

Horizontal wells commenced between January 1, 1994, and December 31, 2001, receive an 18-month holiday from net proceeds tax, versus a 12-month holiday for conventional vertical completions. Total tax rate for the initial 18 months of production for new horizontal wells is 5.7 percent, 7.0 percentage points less than the rate (12.7 percent) for subsequent production from those wells.

SB 18 was supported by the Montana Petroleum Association, Meridian Oil Inc and Shell Western E&P Inc. The two companies have extensive secondary recovery and/or horizontal drilling programs underway on

the Cedar Creek Anticline of Fallon County (see Orders Issued, below).

Orders Issued

Pollowing its March 31 hearings, the board issued a number of orders, including approval of a plan by HS Resources Inc and Samuel Gary Jr & Associates to drill a 7890-ft Mission Canyon wildcat in sess w 12-34n-45e, Daniels County. The board also approved the companies' plan for a 9020-ft Red River wildcat in sene 14-34n-45e (PI 3-16, 4-11-94).

Equitable Resources Energy Co, Balcron Oil Division, was granted administrative approval for an exploratory test targeting Red River in nwse 27-36n-52e, Sheridan County. Total depth for that as-yet unpermitted test will be about 10,000 ft.

In response to an application by Vintage Petroleum Inc, the board issued an order delineating e/2 nw and w/2 ne 8-33n-58e, Sheridan County, as a field for production from Madison and Nisku. The field has been designated as non-delineated Clear Lake field.

Panterra Petroleum was grantedits application for an exception location Red River/Nisku test in swne 10-28n-58e, Roosevelt County, Bainville North field.

(Please see Monsana, Page 14)

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FIFE SYMINGTON GOVERNOR

Arizona (State Land Bepartment (

1616 WEST ADAMS

PHOENIX, ARIZONA 85007



M.J. HASSELL STATE LAND COMMISSIONER 亲

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STATE LAND DEPT.

FACSIMILE COVER PAGE

DATE:	March 15, 1994
TO:	Stevel RAUZI:
FROM:	BARRY MOORY
SUBJECT:	COMPATISON OF OIL AND GAS terms on State trust leases
	terms on state trust leases
NUMBER O	F PAGES INCLUDING COVER: 2
ANY QUES	TIONS, PLEASE CONTACT ME AT: 542-2686
FAX NUMB	ER: (602) 542-4668
REMARKS:	Please Notify MO of ANY
OMIC	Please Notify Me of Any osions, mistages, or Additions
LON	Find Applicable.

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COMPARISON OF OIL AND GAS LEASE TERMS

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	.		C_1		1	
NEW MEXICO	\$30.00	\$.10-\$1.00 per acre. \$100 minimum.	Each lease contains no more than 2 sections of land.	Initial 5 year term. Second 5 year term has double the rental fee.	Varies from 12.5% to 20% depending on whether wildent or development well.	Minimum of \$10,000 per lease.
COLORADO	\$20.00	\$1.50 per acre	Each lease has a maximum of 640 acres.	Lense issued for 5 years with a one time renewal for one year at \$10 per acre.	12.5% of fair market value at the well or price received by lessee at the well, whichever is greater. Shut in royalty is \$2.00 per acre.	\$5,000 per well with \$25,000 blanket bond.
UTAH	\$30.00	\$1.00 per acre \$20 minimum.	Each lease contains no more than 2,560 acres or four sections.	Initial 10 year term.	12.5% after 10 years annually increases 1% to a maximum of 16 2/3%.	Mell Depth Bond Amounts 0-3,000' \$20,000 3,000-10,000' \$20,000 >-0,000' \$40,000 or blunket band of \$80,000.
ARIZONA	\$100.00	\$1.00 per acre \$40.00 minimum.	Each lease contains no more than 2,560 acres (6 miles square).	Initial 5 year term. Second 5 year term is \$2,00 per acre.	for gas is \$1.00/acre for year 1, \$2.00/acre for year 2 and \$3.00/acre for year 2 and \$3.00/acre for year 3, 4 and 5.	None
	Filing Fee	Annual Lease Rental	Size of Leasable Tract	Lease Temi	Royalty	Bond Requirement

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LE TRANSPORT

Agenda item 7

Proposed Statutory Amendments to A.R.S. §§ 27-516(A)(3) and 27-654

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Please recall our discussion in your last meeting that no specific statute requires the owner to plug wells that have been abandoned by the operator and that no specific statute clearly states the liability of the owner or operator for plugging and abandonment costs in excess of the amount of the posted performance bond. That discussion lead to the revision on the enclosed statutes. This revision has been coordinated with Beryl.

Both the oil and gas bonding statute, § 27-516(A)(3), and the geothermal bonding statute, § 27-654, have been revised. This revision to the two statutes improves the Commission's ability to enforce plugging of unplugged but abandoned wells. It also allows the Commission to keep the amount of the bond low enough to provide an incentive to drilling in Arizona yet, at the same time, plainly states who is liable for any plugging and abandonment costs above and beyond the actual amount of the posted bond.

If you agree with the proposed language and instruct us to proceed with the statutory changes, we will take steps to initiate the process through the appropriate staff analyst of the Natural Resources Committee to have the bill sponsored and introduced in the next legislative session in January 1995.

Ves - Proceed 7-8-94

Carrie .

158) ERRE

MEMO TO FILE

POSSIBLE LANGUAGE FOR STATUTORY CHANGE - OIL & GAS

A.R.S. § 27-516. Rules and Regulations

C

A.3. Requiring a reasonable bond with good and sufficient surety conditioned on the performance of the duties prescribed in paragraphs 1 and 2 of this subsection including the obligation to plug each dry or abandoned well. THE OWNER OR OPERATOR SHALL BE RESPONSIBLE FOR THE EULL COST OF PLUGGING EACH DRY OR ABANDONED WELL. IN THE EVENT THE OWNER OR OPERATOR SHALL FAIL TO PLUG AND ABANDON THE WELL IN ACCORDANCE WITH THIS SUBSECTION, THE COMMISSION MAY FORKEIT THE BOND AND USE THE PROCEEDS FOR SUCH PURPOSES. IN SUCH EVENT, THE COMMISSION MAY SUE THE OWNER OR OPERATOR FOR THE COSTS OF SUCH PLUGGING AND ABANDONMENT IN EXCESS OF THE AMOUNT OF THE BOND AND THE OWNER OR OPERATOR SHALL BE DIABLE FOR SUCH AMOUNT.

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A.R.S. § 27-654. Drilling bond; amount

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The commission shall require that every person who engages in the drilling, ownership or operation of a well, or the entering or deepening of an abandoned well, shall file with the commission, on a form to be determined by the commission, a reasonable bond with good and sufficient security conditioned upon the performance of the duties required by this section and the abandonment, as approved by the commission, of such well in an amount to be determined by the commission, but in no case may the bond be less than five thousand dollars for each individual well or less than twenty-five thousand dollars for any number of wells. Such bond shall remain in full force and effect until all requirements of the commission have been satisfied or until otherwise released by the commission.

B. THE OWNER OR OPERATOR SHALL BE RESPONSIBLE FOR THE FULL COST OF PLUGGING EACH DRY OR ABANDONED WELL. IN THE EVENT THE OWNER OR OPERATOR SHALL FAIL TO PLUG AND ABANDON THE WELL IN ACCORDANCE WITH THIS SUBSECTION, THE COMMISSION MAY FORFEIT THE BOND AND USE THE PROCEEDS FOR SUCH PURPOSES IN SUCH EVENT. THE COMMISSION MAY SUE THE OWNER OR OPERATOR FOR THE COSTS OF SUCH PLUGGING AND ABANDONMENT IN EXCESS OF THE AMOUNT OF THE BOND AND THE OWNER OR OPERATOR SHALL BE LIABLE FOR SUCH AMOUNT.

Agenda item 11 X



Fife Symington

Governor

Arizona Geological Survey

845 North Park Avenue, #100 Tucson, Arizona 85719 (602) 882-4795 June 28, 1994



Larry D. Fellows Director and State Geologist

Mr. L.W. Brooks c/o Don Switzenberg 7585 Redfield Scottsdale, Arizona 85260

Re: Power Ranches geothermal wells 1 and 2, State permits Nos. 605 & 611

Dear Mr. Brooks:

The Oil and Gas Conservation Commission of the State of Arizona will meet on July 8 in Phoenix. One of the agenda items will be a discussion of the status of the two referenced wells. I would like to advise the Commission of any progress relative to your request of February 9 for information on plugging the wells and Mr. John Schneider's request of March 24 for forms required to plug and abandon. As a result, I would appreciate it if you would advise me of any progress on your part in this matter.

I would note that an alternative to the plugging quote that I mailed to you on February 9 is the placement of a bridge plug at the top of each formation open to the well bore (see A.A.C. R12-7-232(A)(1), which was mailed with the plugging quote). This alternative may cost less than the procedure outlined in the plugging quote mailed to you on February 9. In any event, the Commission looks forward to working with you on the method of plugging to get these wells properly plugged and abandoned at your earliest convenience.

An agenda for the July 8 meeting is enclosed. Of course, your attendance at the meeting would be most welcome should you prefer to personally advise the Commission of any progress to plug and abandon the wells.

Sincerely,

Steven L. Rauzi

Oil & Gas Program Administrator

Stevent. Ranjo

John Schneider

April 18, 1994

Dr. Dale J. Nations Chairman Oil & Gas Conservation Commission 845 North Park Avenue #100 Tucson, Arizona 85719

Dear Dr. Nations:

I am sorry that we have not yet had the opportunity to meet personally. However, I am looking forward to meeting you at the next Commission meeting which I understand is scheduled for July 8th in Alpine.

In the meantime, however, I want to take this opportunity to write to you in your capacity as Chairman to indicate my potential involvement in the oil and gas industry and my desire to avoid any possible conflict of interest.

Specifically, within the last week, I have spoken with both Steven Rauzi, Oil & Gas Program Administrator, and Beryl Dulsky, Assistant Attorney General assigned to the Commission, for the purpose of advising them that I may, at some point in the future, be involved in the leasing of lands within the State of Arizona which may be suitable for oil and gas exploration. I have also indicated that should any project in which I might have a direct or indirect interest ever come before the Commission, I would obviously thereupon recuse myself from any participation in the matter whatsoever. By copies of this letter to both Mr. Rauzi and Mr. Dulsky, I am reaffirming to them in writing my intentions in this regard.

However, if for any reason you foresee any conflict or other problem of which I am not aware, please feel free to so advise.

I look forward to working with you and the other members of the Commission. Please let me know if there is anything I can do to assist you in preparation for the July 8th meeting.

Thank you.

Very truly yours,

James C. Lanshe Chairman

JCL:ja

cc: Steven L. Rauzi
Beryl T. Dulsky, Esq.

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