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 January 14, 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 August 20, 1993.
3. Welcome new Commission Member
4. Statement of Director and State Geologist
5. Report of Oil & Gas Program Administrator
6. Status of #1 Alpine-Federal geothermal well
7. Permitting procedures
8. Contender Oil Company bond
9. Assistant Attorney General report on status of Power Ranch geothermal wells
10. Developments in Navajo Nation
11. Call to the public
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 30th day of December 1993.

OIL AND GAS CONSERVATION COMMISSION

[Signature]

Steven L. Rauzi
Oil and Gas Program Administrator
NOTICE OF COMBINED PUBLIC MEETING AND POSSIBLE EXECUTIVE SESSION

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Dated this 30th day of December 1993.

OIL AND GAS CONSERVATION COMMISSION

Steven L. Rauzi
Oil and Gas Program Administrator

PLEASE ADVISE PAM OR ME ASAP IF YOU WILL NOT BE ATTENDING THIS MEETING
December 30, 1993

TO: Oil and Gas Conservation Commissioners

FROM: Steven L. Rauzi, Oil and Gas Program Administrator

SUBJECT: Activity Report for January 14, 1994, Meeting

Governor Symington appointed Lisa C. Worthington to the Commission on July 2, 1993. She is replacing Barbara H. Murphy.

The minutes of your last meeting on August 20, 1993, were mailed to you shortly after that meeting so they are not enclosed. Please let Pam or me know if you would like another copy of these minutes.

The Alpine-Federal 1 geothermal hole north of Alpine is shut-in. Letters from John Sass, U.S. Geological Survey, and John Mock, Department of Energy, concerning this well are enclosed for your review. Sass indicated that Thomas Moses, U.S. Geological Survey, Menlo Park, and Fritz Gorham, Department of the Interior solicitor general, Phoenix, plan to attend the January 14 meeting to talk about transferring responsibility of the well from Tonto to the USGS. Of special note is that the Alpine hole had shows of oil in the Permian Supai Formation. The shows indicate that the extensive basaltic volcanism of the area has not been detrimental to the hydrocarbon potential of the Permian rocks and suggest that units underlying the Permian also may have hydrocarbon potential.

Concerning the background material for the agenda item on permitting procedures, I do not see how requiring public notice and hearing for a well within X miles of a community will provide more protection than is currently provided by your existing rules, which have been promulgated through the open-meeting process. As pointed out in the Chairman’s letter of February 4, 1993, the Commission’s rules are consistent with surrounding states.

The Arrowhead Oil and Gas SunCor-Melange #32-23 well location near Litchfield Park was restored to the satisfaction of our rules and the landowner in August. Their bond was released on September 3, 1993.

Kerr-McGee plugged the Navajo B-1 at the Dinch-bi-Keyah Field in October. The well never did produce but was not plugged because they planned to use it as an injection well in a
Activity Report for January 14, 1994, Meeting
December 30, 1993
Page 2

future water flood project at the field. However, they decided to plug the well after it failed a
recent mechanical integrity test. I witnessed the plugging of this well.

Keith Gibbs requested information and forms because he was thinking about buying
some producing wells in Arizona. He did not say which wells but both Dry Mesa (to Chuska
Energy as discussed at the hearing during your last meeting) and Kerr McGee have indicated a
desire to sell their producing wells. Kerr McGee recently requested information on procedure
if they sold the Dineh-hi-Keyah Field. Shortly after Kerr McGee’s request, Manhattan Oil
Company requested verification of Kerr McGee’s producing wells. However, I have not
received any written notification of actual sales of wells since these initial contacts.

The Amerigas and Ferrelgas LPG-storage facilities were inspected and were in good
condition in November. It was a banner year for Ferrelgas, they had more product in storage
in 1993 than in any previous year. They hope to have a new brine pond built by summer of
1994.

I will have Contender Oil Company’s certificate of deposit at the meeting for the
Chairman to endorse for subsequent deposit into the Oil and Gas Conservation fund.
Apparently, the Department of Water Resources is not able to work out an access agreement to
the well with the new property owner. Therefore, we will have the well plugged and abandoned
as soon as we get legislative appropriation to do so. Larry will advise of the procedure and
status of this appropriation.

The Attorney General certified the repeal of R12-7-193 and R12-7-195 on September 22,
1993, and these rules were removed from the Arizona Administrative Code in the 93-3
supplement. I have received no word on the second and third groups of rules. In other rule-
related developments, the Arizona Department of Environmental Quality is seeking Underground
Injection Control (UIC) Primacy from the U.S. Environmental Protection Agency. Their legal
assistant in the UIC Primacy Project, Joan Sanvietta, called to discuss the project with me and
requested a copy of our rules on Class II injection wells. I sent her a copy of the injection rules
that you adopted in March 1993 with a note that they are still being reviewed for certification
by the Attorney General. I also sent her a copy of a letter dated November 17, 1987, in which
ADEQ advised EPA that Class II injection wells were regulated by the Oil and Gas Conservation
Commission and would continue to be regulated by the Commission in the UIC Program.

Some graphs of posted prices for Four Corners sweet crude are enclosed for your
information. The price dropped to below $14/barrel for the first time since October 1988 and
has caused oil companies to reexamine their spending plans for 1994. Many of the plans were
based on $18-20/barrel oil and in one report, Phillips was including oil as low as $13/barrel in
its forecasting. The Independent Petroleum Association of America reported that the low oil
price threatens production from marginally producing wells, which account for almost one-fourth
of U.S. oil output.
Contacts from O&J report

1. Wallace Payne
   Metro Oil & Gas
   interested in geological analyses, maturation studies, migrated vs.
   in situ oil. Send sample policy + add to ARGO.

2. Ed Marker
   P.I.
   additional studies available, new pub mailing list? add to ARGO.

3. Norin Preston
   Preston Oil Ltd.
   details, additional studies, oil, gas, type maps. Send pub list
   + give Winkler reference.

4. Brennan
   details, is working up plays eastern AB by western AB, send MT
   maps.

5. Frank Turner
   calling for Floyd Martin. Working up Camp Peak plays may
   extend south into AB. Hunt well @ 8000 in Saskatchewan. FC glad I can
   hope to encounter gas' at two $10 million budgeted seismic
   activity + leasing play in western AB, pipeline driven. New lease talk
   on play to ABS? 1-800-267-4145.

6. Jim Perrin
   Sec. Wish to do geocam @ no charge.

7. Re: Zimmermann
   718-221-5523
   discuss details, lead lease: 6-75-2-90W ABS and 6-70
   4-27-16-25W. Shell drilled on first block in AB. Has Shell contract
   Call when 6-27-16-25W? suggest call to Dr. Bruce Blackey, Fernwood
   503-235-9071. His son was office in Denver.
Office of the Governor
of the State of Arizona

To all to whom these Presents shall come Greeting:

I, Fife Symington, Governor of the State of Arizona in the name of
and by the authority of said State, do Commission and Authorize

LISA C. WORTHINGTON
to be a member of the

OIL & GAS CONSERVATION COMMISSION

and to discharge, according to law, the duties of said office, and
to hold and enjoy the same, together with the powers, privileges and
emoluments thereunto appertaining, until the legal termination thereof,

IN WITNESS WHEREOF I have hereunto set my
hand and caused to be affixed the Great Seal of
Arizona done at the Capitol in the City of
Phoenix, this twentieth day of July in the
year of our Lord, One Thousand Nine Hundred
and Ninety Three.

Fife Symington
GOVERNOR

Attest:
Richard H. Haas
Secretary of State
DATE: September 3, 1993

TO: Oil and Gas Conservation Commissioners

FROM: Steven L. Ruzzi, Oil and Gas Program Administrator

SUBJECT: Signed documents from your meeting and the hearing on August 20, 1993

I have enclosed the Minutes of Meeting and the Executive Session Minutes from your meeting of August 20, 1993. Normally, these would be enclosed with the agenda material that is mailed to you two weeks before your next regularly scheduled meeting. However, you have scheduled your next meeting for January 14, 1994, and I thought it would be good to mail the minutes at this time while the meeting of August 20, 1993, is still fresh in mind.

I have also enclosed a copy of Order 62. Please note that, as you so ordered in the hearing on August 20, 1993, the mechanical integrity test requirement in Order 58 was amended from requiring the test on an annual basis to requiring the test at least once every two years.
OIL AND GAS CONSERVATION COMMISSION
845 North Park Avenue, #100
Tucson, Arizona 85719

Minutes of Meeting
August 20, 1993

Present:
Mr. James E. Warne, Jr., Vice-Chairman
Dr. J. Dale Nations, Member
Mr. Zed Veale, Member
Dr. Larry D. Fellows, State Geologist
Mr. Steven L. Rauzi, Oil and Gas Program Administrator

The regular Commission Meeting of August 20, 1993, was called to order by Mr. James E. Warne, Jr., Vice-Chairman, at 10:00 a.m. in Room 500, State Capitol Tower, Phoenix, Arizona.

HEARING ON APPLICATION TO AMEND PERMIT FOR INJECTION WELL AT DRY MESA FIELD

At 10:05 a.m., the hearing on Dry Mesa Corporation’s requested amendments to its disposal well in the Dry Mesa Field started. Minutes for that hearing are presented separately.

APPROVAL OF MINUTES OF MEETING AND OF THE EXECUTIVE SESSION OF MARCH 12, 1993

Dr. Nations moved, seconded by Mr. Veale:

THAT THE MINUTES OF THE MEETING AND OF THE EXECUTIVE SESSION OF MARCH 12, 1993, BE ACCEPTED AS PRESENTED

Motion carried unanimously.

STATEMENT OF DIRECTOR AND STATE GEOLOGIST

Dr. Fellows reported that he is busy closing the fiscal year that ended on June 30, assigning projects for the coming year, and preparing the annual report for fiscal year 1992-93. He is also working on the fiscal year 1994-95 budget.

Dr. Fellows reported that the bulk of the core from the Tertiary section in the well being cored near Alpine will be on permanent loan to the New Mexico Bureau of Mines and Mineral Resources in Socorro where they have a nice core storage facility and a couple of staff people actively working on the upper part of the hole. He advised that all of the core below the Tertiary will be stored at our repository plus a sampling of the upper part and noted that all other cores in our repository have been skeletonized. Dr. Nations was concerned about the lack of adequate core storage space in Arizona.

Dr. Fellows advised that our sampling from the Tertiary exceeds the minimum required by rule and that we do not have a budget to pay for excessive core storage. He noted that to date there has been very little demand for research on the core we do have stored.
Oil and Gas Conservation Commission Minutes  August 20, 1993

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 updated the Commissioners on the Alpine-Federal #1 well and advised that the operator of the well planned to request observational status for up to two years and that the U.S. Geological Survey desired to assume the responsibility for the well and deepen it into Precambrian rocks. The Commission agreed in principle to the change of status and transfer of responsibility to the U.S. Geological Survey but would not make a final decision until the issues of posting a bond, the assumption of responsibility, and the setting of a specific time frame for deepening or plugging the hole are resolved by some sort of written agreement.

Mr. Rauzi reported that the Sunbelt Refinery near Coolidge would cease operations by August or September. Sunbelt planned to mothball the refinery until asphalt prices firm and ongoing environmental litigation is resolved.

Mr. Rauzi reported that PB-KBB plans to run a sonar caliper log to verify the volume of cavern 1 at the Amerigas LPG-storage facility early next year. PB-KBB advised him that it is becoming increasingly difficult to get a sonar caliper run since there are only four small companies that run them. They asked the Commission to consider the interface-volume method as an alternative to the sonar caliper and indicated to Mr. Rauzi that they would send him a summary of this method so that he could present it to the Commission for their consideration.

Mr. Rauzi reported that he is still waiting to hear from Ms. Clark on their discussion on the second set of rules. He discussed the third set with Mr. Finigan and will be sending the resulting changes to the Commissioners for approval as soon as he hears back from him. Mr. Dusky added that the third set looked fine and he expected them to be certified quickly unless Ms. Stewart had changes.

CLOSE RECORD AND REPEAL A.A.C. R12-7-193 AND R12-7-195

No oral proceedings were scheduled on the repeal of these two rules and Mr. Rauzi reported that no written comments were received. The closing date for written comments was July 30, 1993.

Mr. Veale moved, seconded by Dr. Nations:

THAT THE COMMISSION CLOSE THE RECORD, ADOPT THE CONCISE EXPLANATORY STATEMENT, AND REPEAL R12-7-193 AND R12-7-195 SUBJECT TO CERTIFICATION BY THE ATTORNEY GENERAL

Motion carried unanimously.

Mr. Warne signed the documents on these two rules and Mr. Rauzi advised that he would forward the two rules to the Attorney General.

DISCUSS FORFEITURE OF CONTENDER OIL COMPANY BOND

Mr. Rauzi discussed getting the Aman #1 well plugged with the $5,000 bond and reported that he wrote to Contender Oil Company and asked them to voluntary forfeit their bond. His letter was returned unopened. He reported that the Arizona Department of Water Resources is interested in
using the well as an observation well. They will accept responsibility for it if the Commission will transfer the bond money with the well and if they could work out an access agreement with the land owner. Since the property is being sold, the Department of Water Resources will need to wait until the sale is finalized before working out the access agreement.

Dr. Nations moved, seconded by Mr. Veale:

THAT THE COMMISSION FORFEIT THE CONTENDER OIL COMPANY BOND FOR NONCOMPLIANCE WITH RULES AND STATUTES

Motion carried unanimously.

ASSISTANT ATTORNEY GENERAL REPORT ON CONTENDER AND POWER RANCH WELLS

Dr. Nations moved, seconded by Mr. Veale:

THAT THE COMMISSION GO INTO EXECUTIVE SESSION

Motion carried unanimously. At 11:10 a.m., the Executive Session began.

The regular meeting resumed at 11:46 a.m.

ELECTION OF OFFICERS

Mr. Warne moved, seconded by Mr. Veale:

THAT DR. NATIONS BE NOMINATED CHAIRMAN

Motion carried unanimously.

Mr. Veale moved, seconded by Dr. Nations:

THAT MR. WARNE BE NOMINATED VICE-CHAIRMAN

Motion carried unanimously.

CALL TO THE PUBLIC

None.

ANNOUNCEMENTS

The next meeting was scheduled for January 14, 1994, in Room 500 of the Capitol Tower.

ADJOURNMENT

Dr. Nations moved, seconded by Mr. Veale:
Oil and Gas Conservation Commission Minutes  August 20, 1993  Page 4

THAT THE MEETING BE ADJOURNED

Motion carried unanimously. Time of adjournment was 12:00.

APPROVED

[Signature]

Mr. J. E. Warne, Jr.
Vice-Chairman

GUESTS IN ATTENDANCE:

Beryl J. Dutsky
Barry A. Wieland
Kent L. Carter
Renee Bahl
Melodie Jones

Attorney General's Office
Cheska Energy Company
McFails Reporting Service
JLBC
OSP
Geothermal test hints at oil potential in eastern Arizona volcanic field

Steven L. Rauzi  Arizona Geological Survey  Tucson

A recently drilled geothermal well, funded in part by the U.S. Department of Energy and the Arizona Department of Commerce, has provided information about the geology of east-central Arizona and west-central New Mexico.

Toledo Drilling Services in cooperation with New Mexico State University completed the well, the Apache Federal, at a total depth of 4,505 ft on Aug. 29, 1993. The well is located among volcanic rocks in the Apache-Sitgreaves National Forest about 6 miles north of the town of Alpine and 6.2 miles west of the Arizona-New Mexico line in 23-6, S., Apache County (Fig. 1). Ground elevation at the wellsite is 8,296 ft.

The well was drilled to determine the hot dry rock geothermal potential of Precambrian rocks. The operator expected to penetrate Precambrian at about 4,200 ft, but the hole was still in Precambrian at that depth.

Thus the well did not provide any information about the depth and nature of the Precambrian rocks or the presence, thickness, and hydrocarbon potential of Pennsylvanian, Mississippian, or Devonian rocks.

The hole did, however, show that Cretaceous and Permain strata contain potentially important source rocks for oil and gas that are apparently unaffected by nearby volcanism. These potential oil source rocks are the focus of this article.

**Stratigraphy**

The Apache Federal was cored from 500 ft to total depth, penetrating Tertiary, Cretaceous, and Pennsylvanian rocks (Fig. 2). The Pennsylvanian rocks were cut by three major faults.

The operator reported the Tertiary Dalil formation at the surface, Rock Gravel formation at 1,093 ft, early Tertiary red beds at 3,139 ft, Cretaceous rocks at 3,260 ft, Permian Son Andre limestone at 3,369 ft, Permian Glorieta sandstone at 3,436 ft, and Permian Yese (Sapelo) formation at 3,741 ft.

A wellop, in an initial inspection of the core with the author, identified the Fort Apache member of the Yese formation from 4,224-4,411 ft. The Fort Apache member is cut by a major fault from 4,200-4,300 ft. The dike apparently did not alter these sediments to any appreciable extent, the widest bored zone being less than 3 in.

**Tertiary strata**

The Tertiary strata in the Apache Federal consist of sulfurous clastic rocks ranging from dense mudstone
and well indurated siltstone and sandstone to boulder conglomerate. The operator reported pale yellow with yellow, grey, and thin-bedded crevasse deposits in the fine-grained material. The top of the Baca formation was picked at the first occurrence of red gravel layers in conglomerate.

**Cretaceous rocks**

The Cretaceous rocks, which resemble the Dakota sandstone, consist of white to light gray coarse-grained quartzose sandstone. The sandstone is brown to black mudstone. Thin coaly seams between 3 and 4 in. thick and dark gray to black laminations are common in the sandstone.

The lamination dip at an angle of about 30° and in some instances are disrupted. The sandstone has a salt and pepper texture in places. The dark mudstone gets progressively lighter and more calcareous upward. The operator described the Cretaceous sequence as being organic rich and an oil source rock and reported what looked like dead oil at the top of the Cretaceous.

Woodward and Crandall identified the Dakota sandstone as containing both potential reservoir and source beds in west-central New Mexico.

**Permain oil shows**

The San Andres limestone in the 1 Alpine-Federal is a medium dark gray micritic limestone. The limestone is dark, laminated, and interbedded with thin, dark gray to black shales. Stylolites filled with a black, earthy organic material are common in the limestone. The organic material can be scraped off with the fingers.

The base of the San Andres includes a 2 ft thick zone of solution or collapse breccia. The breccia consists of light colored clasts of limestone that have an even, golden-colored fluorescence and are surrounded by non-fluorescent, dark gray to black micritic mudstone. The operation reported organic debris in the collapse zone.

The strongest shows of oil in the 1 Alpine-Federal are in the Yavo formation, which consists of classic sea-marginal siltstone deposits. Solution-brecciated blue-gray to light gray dolomite is interbedded with white to brown anhydride and red to dark brown siltstone and mudstone. The anhydride has a chert-like pattern in places. Scour marks and rip-up clasts of dolomite and anhydrite are present at the tops and bottoms of the siltstone and mudstone layers. Birch and green-tinted, soft-sediment deformation, and nodular anhydrite surrounded with mudstone are common. Calcite zones may represent disrupted algal mats.

The upper part of the Yavo formation in the 1 Alpine-Federal contained several zones of petrografic limestone, the most notable of which occurs between 4,025 and 4,560 ft. This zone is well correlated with the Fort Apache member (Fig. 2). The zone is yellowish-gray to yellowish-brown with pinkish-purple and thin, dark laminations throughout. Stylolites and small anhydrite nodules are common near the center of the zone. The zone yielded brown bubbles and a strong pinkish-purple odor when acid was applied.

Samples have a very faint straw-yellow cut and a pale yellow cut fluorescence in 1,1,1-trichloroethane. A test interval at 4,025 ft contains fossil naphtha and has distinct oil staining along vertical fractures. These tests have a brown to yellowish-brown fluorescence and a bright yellow cut fluorescence.

The Fort Apache member is a rhynolite-banded medium to dark gray fossiliferous limestone with thin, dark laminations and numerous zones of yellowish-brown limestone. Porosity is pinpoint to very vuggy and vertical, calcite-filled fractures are present.

Dead oil stains some of the fractures and most of the pinpoint porosity. Most of the Fort Apache member has a faint pink color of odor and yielded brown bubbles and a strong petrografic odor when acid was applied. When the acid was dried, distinct brown rims were evident on the rock.

The presence of petrografic rocks in the upper part of the Yavo w. s. not expected. Heavy oil, oil staining, and dead to asphaltic oil were reported in the upper part of the San Andres (Yavo) formation in several wells both north and west of the 1 Alpine-Federal.

The petrografic zone above the Fort Apache may correlate with a petrografic zone reported above the Fort Apache in the Eastern Pecos 1A Coyote Creek well, about 23 miles north of the 1 Alpine-Federal.

The 1 Alpine-Federal penetrated only 600 ft of the Permian Yavo formation. Logs and mapping based on the few wells to the west, north, and east suggest that as much as 1,500 ft of these rocks are present at this location, which leaves as much as 1,000 ft of Yavo beds yet to be explored.
to be penetrated at this locality. The presence of these rocks may increase the depth necessary to fully penetrate the Yesso formation.

Pre-Permian rocks

The 1 Alpine-Federal well was not drilled deep enough to encounter Permian rocks. Mapping by Wrucek suggests that Permian rocks may be present beneath the Yesso formation at the 1 Alpine-Federal location. Wrucek reported two large blocks of probable Permian limestones that suggest a possible Permian formation beneath the Permian limestones at the 1 Alpine-Federal location.

Regional studies indicate that Permian rocks are present beneath the Yesso formation at the 1 Alpine-Federal location. However, the extent and thickness of these rocks are uncertain.

Exploitation

The exploration of the Permian rocks at the 1 Alpine-Federal location is an important step in the search for potential oil and gas reservoirs. The presence of Permian rocks beneath the Yesso formation suggests that there may be additional hydrocarbon potential in this area. Further exploration and drilling are necessary to fully assess the potential of these rocks.

Conclusion

In conclusion, the Permian rocks at the 1 Alpine-Federal location may be an important target for future exploration. Further studies are needed to determine the extent and thickness of these rocks and to assess their potential as oil and gas reservoirs.

References


THE AUTHOR

Ray F. Wrucek

Ray F. Wrucek is a geologist with 30 years of experience in the exploration and evaluation of hydrocarbon reservoirs. He has conducted numerous studies on the geology of the Permian Basin and has published extensively on the subject. Wrucek is recognized as an expert in the field of petroleum geology and has made significant contributions to the understanding of the Permian Basin's hydrocarbon potential.
United States Department of the Interior
Geological Survey
Geothermal Studies Project
2255 North Gemini Drive
Flagstaff, Arizona 86001

PHONE 001 602 556 7226
FAX 001 602 556 7169
jass@flag2.wr.usgs.gov

MESSAGE FROM JOHN J. ASS

TO: Larry Fellows

DATE: November 19, 1993

As per our just concluded phone call, I am unable to attend today's meeting because of a family medical emergency. Following are some graphs and a table showing preliminary thermal data. These should not be considered as in the public domain yet as we have a great deal more lab and interpretive work, particularly on thermal conductivity, to get a consistent heat-flow result.

My position on taking over the well is summarized in Ted Mock's letter. We need to get Tonto released from their bond and get Ted's commitment of FAA funds accepted in lieu of a bond which, of course, federal government agencies are precluded by law from providing. In that connection, I should point out that the USGS and my project in particular has drilled over 50 research wells in Arizona, and has taken over several commercially drilled holes, including 5 of the NURE Uranium Exploration wells. In all cases we have plugged and abandoned the wells upon completion of our studies.

I'll be at my desk for most of the rest of the morning and reachable at the above phone and fax numbers.

Once again, sorry I can't attend the meeting.

3 PAGES FOLLOW; PLEASE DELIVER IMMEDIATELY
DEPARTMENT OF ENERGY
WASHINGTON, DC 20585

FACSIMILE TRANSMISSION

DATE: November 15, 1993

TO: Mr. John Haas
U.S. Bureau of Land Management
3707 North 7th St.
Phoenix, AZ 85014

TELEFAX: 602-650-0399

2 PAGES FOLLOW.

John E. Mock
Geothermal Division
EE-122

202-586-5340
Telefax: 202-586-5124
Mr. John Haas  
U.S. Bureau of Land Management  
3707 North 7th St.  
Phoenix, AZ 85014

Dear Mr. Haas:

As you know, the State of Arizona - U.S. Department of Energy Hot-Dry-Rock test well was completed near the end of August to the target depth of 4500 feet. A complete suite of continuous core was obtained between 500 feet and total depth, a limited set of commercial geophysical logs (gamma-ray/neutron) was run, and four high-resolution temperature logs were obtained by the U.S. Geological Survey (USGS) between August 31 and October 21. While this represents a substantial body of scientific data, two important objectives of great scientific value, critical to the assessment of the hot-dry-rock geothermal potential of the Springerville area, were not achieved.

1) Penetration of Precambrian basement rocks. Any potential geothermal reservoir will be located in the crystalline basement. Reasonable inferences from nearby outcrops and the nearest oil-exploration test wells indicated that basement would be encountered between 3300 and 4300 ft. A surprisingly thick sequence of Tertiary rocks and an unexpected layer of Mesozoic sedimentary rocks provided welcome new geologic data, but the hole bottomed out short of the Precambrian target. One of the critical questions regarding the geothermal potential of this area turns on whether the high heat flow observed in the sedimentary section continues a significant distance into the crystalline basement rocks.

2) Open-hole investigations including logging, downhole measurements, and fluid sampling. The nature of the procurement precluded completion of these important tasks.

With the successful conclusion of the original contract requirements, we have reached a decision point. Rather than abandon the well at this point, there is an opportunity for additional coring and testing before abandonment. The USGS is proposing to take over as operator of the well and to assume all responsibility from the present contractor (Tonto Drilling Inc.), and DOE will provide funding of up to $25,000 to ensure a satisfactory plugging and abandonment of the well at the conclusion of this process. The USGS will operate the hole as a thermal observation well until a satisfactory equilibrium temperature profile has been obtained (temperature measurements to date are sufficient to satisfy Tonto's contractual obligations).
The researchers hope to deepen the well to reach Precambrian basement rocks. During the period of time needed to reach equilibrium temperature, additional funding will be sought by Mr. James Witcher of New Mexico State University (NMSU) and Dr. John Sass, Chief of the Heat-Mining Project, USGS. Contingent on acquiring the needed funds, a string of size-NQ drill rods left in the well will be partially removed to facilitate downhole testing. The size-NQ drill rods will then be rerun and the hole will be deepened with size-BQ into the crystalline basement. Open-hole measurements will then be made together with another series of temperature logs. Upon completion of this phase of measurements, the hole will be plugged and abandoned by the USGS or completed in a manner consistent with its employment as a long-term observation well for climatic-change studies and other purposes.

I greatly appreciate your cooperation and support in this project. The significant accomplishments we achieved are due to the group effort, and I would appreciate your help in continuing the scientific value of this well by transferring responsibility to the U.S. Geological Survey. Thank you again for your interest and collaboration on this important project.

Yours sincerely,

[Signature]
John F. Mock, Director
Geothermal Division
Energy Efficiency and Renewable Energy
R12-7-202. General rules applied statewide
A. Scope of rules. These rules are general rules of statewide application and shall apply to all areas, however, special rules, applicable to particular areas or subject matter, shall prevail over these general rules to the extent that they are in conflict therewith.
B. Enforcement of laws, rules and regulations dealing with the conservation of oil and gas resources. The Commission, by virtue of A.R.S. § 27-951 et seq., has jurisdiction and authority over such persons and property deemed necessary to administer and enforce the provisions of the statutes, rules, and regulations relating to the conservation of geothermal resources.
C. Waiver of geothermal resources is unlawful and prohibited.
D. Classifying and defining areas. The Commission, on its own motion, may, and upon application of any interested person shall, after notice and hearing, determine whether a particular well or area is a geothermal resource well, or a geothermal resource area, or whether a reclassification should be made.
E. Forms upon request
1. Forms for written notices, requests and reports required by the Commission will be furnished upon request.
2. Requesting all forms and reports required by the Commission to be submitted to the Commission on or before the 20th day of the next succeeding month for monthly reports or within 20 days following the completion of the action requiring the report, except as otherwise provided by the Commission.

R12-7-203. Bond
A. Before any person shall hereafter engage in the business of drilling for or producing a well in this state, such person shall file with the Commission a bond executed by such person as principal and some surety company satisfactory to the Commission as surety, in the principal sum of $5,000 for each individual well or in the principal sum of $25,000 as a blanket bond to cover all wells, payable to the Oil and Gas Conservation Commission, State of Arizona, for the use and benefit of the Oil and Gas Conservation Fund. Such bond shall be conditioned on the following requirements:
1. Compliance with all statutes and rules and regulations.
2. Plugging and abandoning well as approved by the Commission.
B. Transfer of property does not release the bond. If the property is transferred, and the principal desires to be released from the bond, the procedure shall be as follows:
1. The principal on the bond shall notify the Commission in writing that the well or wells, described accurately in the application and number of each permit to drill, has or have been transferred to a named transferee for the purposes of ownership or operation.
2. The transferee of the operation of any such well shall declare in writing his acceptance of such transfer and of the responsibility of such well and shall submit a new bond or bonds unless a blanket bond applies to the well or wells.
C. When the Commission approves the transfer, the transferee is released from all responsibility thereafter with respect to the well or wells, and the Commission in writing will declare that the transferee's bond or bonds applicable thereto shall be released.

September 30, 1993
MAIL OGC Agenda for 1/14/93

MTG TO: Thomas H. Moses
U.S.G.S.
345 Middlefield Rd
Menlo Park, CA 94025
FAX: 415-329-4876

and TO: John Sass
U.S.G.S.
2255 North Gemini Dr
Flagstaff, AZ 86001
FAX: 602-556-7169
PAM - PLEASE SEND OGCC
AGENDA (1-14-94 MTG) TO:

Bob Dyson
U.S. Forest Service
P.O. Box 469
Alpine, AZ 85920
PAM - PLEASE SEND AGENDA
FOR JAN 0636 M7G 70:

JAMES C. LANSHE
645 EAST MISSOURI AVE
PHOENIX AZ 85012

JOHN M. KING SR.
CASTLE RESOURCES CORP.
P.O. BOX 6405
SCOTTSDALE AZ 85261
Mr. Jim Mitchell  
Environmental Specialist  
City of Avondale  
325 North Central  
Avondale, Arizona 85323  

Dear Mr. Mitchell,

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised of future exploration drilling efforts in Arizona.

As you may recall from the Commission's March 12, 1993, meeting, the Commission issues a permit to drill, pursuant to A.R.S. § 516 and A.A.C. R12-7-104, only after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of Arizona Geology. Even though this article discusses the well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please let me know if I can be of further assistance in this matter.

Sincerely,

Steven L. Raiz
Oil and Gas Program Administrator

Enclosure

bc Commissioners and Larry Fellows
COUNTY MANAGERS - JANUARY 1994

APACHE
Clarence Bigelow
P.O. Box 428
St. Johns, AZ 85936
337-4364

COCHISE
Jody Klein (Administrator)
619 Melody Lane, Bldg. B
Bisbee, AZ 85603
432-9200

COCONINO
James Keene
219 E. Cherry
Flagstaff, AZ 86001
779-6690

GILA
Daniel Field (Administrator)
1400 E. Ash Street
Globe, AZ 85501
425-3231 Ext. 404

GRAHAM
Joe Carter
800 Main Street
Safford, AZ 85546
428-3250

GREENLEE
Robert Stokes (Administrator)
P.O. Box 908
Clifton, AZ 85533
865-2310

LA PAZ
Sandy Dodge (Acting Administrator)
P.O. Box C
Parker, AZ 85344
669-6115

MARICOPA
Roy Pederson
301 W. Jefferson
Phoenix, AZ 85003
506-3571

MOHAVE
David Grisez (Gra say)
P. O. Box 7000
Kingman, AZ 86401
753-0729

NAVAJO
Eddie Koury
P. O. Box 668
Holbrook, AZ 86025
524-6161 Ext. 405

PIMA
Chuck Huckleberry (Administrator)
130 W. Congress, 11th Floor
Tucson, AZ 85701
740-8135

PINAL
Stan Griffie
P. O. Box 827
Florence, AZ 85232
868-6211

SANTA CRUZ
Dennis Miller
2100 N. Congress Dr.
Nogales, AZ 85621
761-7800 Ext. 3053

YAVAPAI
James M. Holst (Administrator)
255 E. Gurley St.
Prescott, AZ 86301
771-3200

YUMA
Jim Stahle (Administrator)
198 S. Main St.
Yuma, AZ 85364
329-2104

* Title "County Administrator" noted with parentheses
Mr. Clarence Bigelow  
Apache County Manager  
P. O. Box 428  
St. Johns, Arizona 85936  

Dear Mr. Bigelow:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 316 and A.A.R.C. R127-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of Arizona Geology. Even though this article discusses a well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please feel free to contact me at the letterhead address if you have any comments on the Commission’s motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi  
Oil and Gas Program Administrator  

Enclosure
January 19, 1994

Mr. Jody Klein
Cochise County Administrator
619 Melody Lane, Bldg. B
Bisbee, Arizona 85603

Dear Mr. Klein:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Administrator of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R127-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of Arizona Geology. Even though this article discusses a well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please feel free to contact me at the letterhead address if you have any comments on the Commission’s motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi
Oil and Gas Program Administrator

Enclosure
Mr. James Keene
Coconino County Manager
219 East Cherry
Flagstaff, Arizona 86001

December 19, 1994

Mr. James Keene:
Coconino County Manager
219 East Cherry
Flagstaff, Arizona 86001

Dear Mr. Keene:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of Arizona Geology. Even though this article discusses a well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please feel free to contact me at the letterhead address if you have any comments on the Commission’s motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi
Oil and Gas Program Administrator

Enclosure
Mr. Daniel Field
Gila County Administrator
1400 East Ash Street
Globe, Arizona 85501

Dear Mr. Field:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Administrator of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of Arizona Geology. Even though this article discusses a well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Raizer
Oil and Gas Program Administrator

Enclosure
Mr. Joe Carter  
Graham County Manager  
800 Main Street  
Safford, Arizona 85546  

Dear Mr. Carter:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of Arizona Geology. Even though this article discusses a well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi  
Oil and Gas Program Administrator

Enclosure
Mr. Robert Stokes  
Greenlee County Administrator  
P. O. Box 908  
Clifton, Arizona 85533  

Dear Mr. Stokes:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Administrator of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of Arizona Geology. Even though this article discusses a well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

[Signature]

Steven L. Rauzi  
Oil and Gas Program Administrator  

Enclosure
State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

January 19, 1994

Ms. Sandy Dodge
La Paz County Administrator (Acting)
P. O. Box C
Parker, Arizona 85344

Dear Ms. Dodge:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Administrator of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

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Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi
Oil and Gas Program Administrator

Enclosure
Mr. Roy Pederson
Maricopa County Manager
301 West Jefferson
Phoenix, Arizona 85003

Dear Mr. Pederson:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of Arizona Geology. Even though this article discusses a well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi
Oil and Gas Program Administrator

Enclosure
Mr. David Grisez
Mohave County Manager
P. O. Box 7000
Kingman, Arizona 86401

Dear Mr. Grisez:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

The drilling procedure for exploration wells is described in the enclosed article from the Winter 1992 issue of *Arizona Geology*. Even though this article discusses a well drilled near Litchfield Park in September 1992, the procedure described is applicable to all wells drilled for oil, gas, or geothermal resources in Arizona.

Please feel free to contact me at the letterhead address if you have any comments on the Commission’s motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Ranzi
Oil and Gas Program Administrator

Enclosure
Mr. Eddie Koury  
Navajo County Manager  
P. O. Box 668  
Holbrook, Arizona 86025  

Dear Mr. Koury:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

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Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi  
Oil and Gas Program Administrator  

Enclosure
Mr. Chuck Huckelberry  
Pima County Administrator  
130 West Congress, 11th Floor  
Tucson, Arizona 85701  

Dear Mr. Huckelberry:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Administrator of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

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Please feel free to contact me at the letterhead address if you have any comments on the Commission’s motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Ranzi  
Oil and Gas Program Administrator  

Enclosure
State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

January 19, 1994

Mr. Stan Griffis
Pinal County Manager
P. O. Box 827
Florence, Arizona 85232

Dear Mr. Griffis:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

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Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi
Oil and Gas Program Administrator

Enclosure
Mr. Dennis Miller  
Santa Cruz County Manager  
2100 North Congress Drive  
Nogales, Arizona 85621  

Dear Mr. Miller:  

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Manager of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.  

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.  

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Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.  

Sincerely,  

Steven L. Rauzi  
Oil and Gas Program Administrator  

Enclosure
Mr. James M. Holst  
Yavapai County Administrator  
255 East Gurley Street  
Prescott, Arizona 86301

Dear Mr. Holst:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Administrator of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

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Please feel free to contact me at the letterhead address if you have any comments on the Commission's motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rauzi  
Oil and Gas Program Administrator

Enclosure
Mr. Jim Stahle  
Yuma County Administrator  
198 South Main Street  
Yuma, Arizona 85364

Dear Mr. Stahle:

I am writing to advise you that in its meeting of January 14, 1994, the Arizona Oil and Gas Conservation Commission passed a motion to provide a copy of the approved application for permit to drill to the County Administrator of the County in which the well is located. The Commission passed this motion as a courtesy to local governments and to keep them informed and advised on future exploration drilling efforts in Arizona.

For your information, the Commission issues a permit to drill pursuant to A.R.S. § 516 and A.A.C. R12-7-104 after it has determined that drilling of the well is in compliance with statutes and rules of the Commission and that correlative rights, public health and safety, and subsurface resources will not be compromised. The Commission works closely with the Department of Water Resources to ensure that surface casing is set deep enough to protect fresh water aquifers.

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Please feel free to contact me at the letterhead address if you have any comments on the Commission’s motion or if I may answer any questions about oil, gas, or geothermal activity in Arizona.

Sincerely,

Steven L. Rausi  
Oil and Gas Program Administrator

Enclosure
Oil & Gas Conservation Commission

Meeting: January 14, 1994

Agenda Items:

Name                      Reporting
John Jones                 Bureau of Land Management
LW Brown                   Top Oil Gas Producer, Denver, CO
Tom Morgan                 U.S. Geological Survey, Miami, FL, CA
Frances Graham             Field Officer, DEP
Bert Reed                  Reed Petroleum, Rig
Frank Mancini              Att., Dept. of Commerce
John Crawford              Consultant, AZ Dept. of Commerce
John M. King Sr.           Castle Resource Corp.
Beryl T. Dusky             Atty Gen., State of Arizona
Michael Mills              Atty Gen.
Jean Salazar-Stevenson     AZ Dept. of Fish, Wildlife
OIL AND GAS CONSERVATION COMMISSION
845 North Park Avenue, #100
Tucson, Arizona 85719

Minutes of Meeting
August 20, 1993

Present:
Mr. James E. Warne, Jr., Vice-Chairman
Dr. J. Dale Nations, Member
Mr. Zod Veale, Member
Dr. Larry D. Fellows, State Geologist
Mr. Steven L. Ruzzi, Oil and Gas Program Administrator

The regular Commission Meeting of August 20, 1993, was called to order by Mr. James E. Warne, Jr., Vice-Chairman, at 10:00 a.m. in Room 500, State Capitol Tower, Phoenix, Arizona.

HEARING ON APPLICATION TO AMEND PERMIT FOR INJECTION WELL AT DRY MESA FIELD

At 10:05 a.m., the hearing on Dry Mesa Corporation's requested amendments to its disposal well in the Dry Mesa Field started. Minutes for that hearing are presented separately.

APPROVAL OF MINUTES OF MEETING AND OF THE EXECUTIVE SESSION OF MARCH 12, 1993

Dr. Nations moved, seconded by Mr. Veale:

     THAT THE MINUTES OF THE MEETING AND OF THE EXECUTIVE SESSION OF MARCH 12, 1993, BE ACCEPTED AS PRESENTED

Motion carried unanimously.

STATEMENT OF DIRECTOR AND STATE GEOLOGIST

Dr. Fellows reported that he is busy closing the fiscal year that ended on June 30, assigning projects for the coming year, and preparing the annual report for fiscal year 1992-93. He is also working on the fiscal year 1994-95 budget.

Dr. Fellows reported that the bulk of the core from the Tertiary section in the well being cored near Alpine will be on permanent loan to the New Mexico Bureau of Mines and Mineral Resources in Socorro where they have a nice core storage facility and a couple of staff people actively working on the upper part of the hole. He advised that all of the core below the Tertiary will be stored at our repository plus a sampling of the upper part and noted that all other cores in our repository have been skeletonized. Dr. Nations was concerned about the lack of adequate core storage space in Arizona. Dr. Fellows advised that our sampling from the Tertiary exceeds the minimum required by rule and that we do not have a budget to pay for excessive core storage. He noted that to date there has been very little demand for research on the core we do have stored.
Oil and Gas Conservation Commission Minutes  August 20, 1993

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 updated the Commissioners on the Alpine-Federal #1 well and advised that the operator of the well planned to request observational status for up to two years and that the U.S. Geological Survey desired to assume the responsibility for the well and deepen it into Precambrian rocks. The Commission agreed in principle to the change of status and transfer of responsibility to the U.S. Geological Survey but would not make a final decision until the issues of posting a bond, the assumption of responsibility, and the setting of a specific time frame for deepening or plugging the hole are resolved by some sort of written agreement.

Mr. Rauzi reported that the Sunbelt Refinery near Coolidge would cease operations by August or September. Sunbelt planned to mothball the refinery until asphalt prices firm and ongoing environmental litigation is resolved.

Mr. Rauzi reported that PB-KIB plans to run a sonar caliper log to verify the volume of cavern 1 at the Amerigas LPG-storage facility early next year. PB-KIB advised him that it is becoming increasingly difficult to get a sonar caliper run since there are only four small companies that run them. They asked the Commission to consider the interface-volume method as an alternative to the sonar caliper and indicated to Mr. Rauzi that they would send him a summary of this method so that he could present it to the Commission for their consideration.

Mr. Rauzi reported that he is still waiting to hear from Ms. Clark on their discussions on the second set of rules. He discussed the third set with Mr. Piegari and will be sending the resulting changes to the Commissioners for approval as soon as he hears back from him. Mr. Dalsky added that the third set looked fine and he expected them to be certified quickly unless Ms. Stewart had changes.

CLOSE RECORD AND REPEAL A.A.C. R12-7-193 AND R12-7-195

No oral proceedings were scheduled on the repeal of these two rules and Mr. Rauzi reported that no written comments were received. The closing date for written comments was July 30, 1993.

Mr. Veale moved, seconded by Dr. Nations:

THAT THE COMMISSION CLOSE THE RECORD, ADOPT THE CONCISE EXPLANATORY STATEMENT, AND REPEAL R12-7-193 AND R12-7-195 SUBJECT TO CERTIFICATION BY THE ATTORNEY GENERAL

Motion carried unanimously.

Mr. Warnings signed the documents on these two rules and Mr. Rauzi advised that he would forward the two rules to the Attorney General.

DISCUSS FORFEITURE OF CONTENDER OIL COMPANY BOND

Mr. Rauzi discussed getting the Aman #1 well plugged with the $5,000 bond and reported that he wrote to Contender Oil Company and asked them to voluntary forfeit their bond. His letter was returned unopened. He reported that the Arizona Department of Water Resources is interested in
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using the well as an observation well. They will accept responsibility for it if the Commission will transfer the bond money with the well and if they could work out an access agreement with the land owner. Since the property is being sold, the Department of Water Resources will need to wait until the sale is finalized before working out the access agreement.

Dr. Nations moved, seconded by Mr. Veale:

THAT THE COMMISSION FORFEIT THE CONTENDER OIL COMPANY BOND FOR NONCOMPLIANCE WITH RULES AND STATUTES

Motion carried unanimously.

ASSISTANT ATTORNEY GENERAL REPORT ON CONTENDER AND POWER RANCH WELLS

Dr. Nations moved, seconded by Mr. Veale:

THAT THE COMMISSION GO INTO EXECUTIVE SESSION

Motion carried unanimously. At 11:10 a.m., the Executive Session began.

The regular meeting resumed at 11:46 a.m.

ELECTION OF OFFICERS

Mr. Warne moved, seconded by Mr. Veale:

THAT DR. NATIONS BE NOMINATED CHAIRMAN

Motion carried unanimously.

Mr. Veale moved, seconded by Dr. Nations:

THAT MR. WARNE BE NOMINATED VICE-CHAIRMAN

Motion carried unanimously.

CALL TO THE PUBLIC

None.

ANNOUNCEMENTS

The next meeting was scheduled for January 14, 1994, in Room 500 of the Capitol Tower.

ADJOURNMENT

Dr. Nations moved, seconded by Mr. Veale:
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THAT THE MEETING BE ADJOURNED

Motion carried unanimously. Time of adjournment was 12:00.

APPROVED

[Signature]
Mr. J. E. Warne, Jr.
Vice-Chairman

GUESTS IN ATTENDANCE:

Beryl I. Dalsky
Barry A. Wieland
Kent L. Carter
Renee Bahl
Melodie Jones

Attorney General’s Office
Chaska Energy Company
McFate Reporting Service
ILBC
OSFB