

MINUTE ITEM

This Calendar Item No. 23
was approved as Minute Item
No. 23 by the State Lands
Commission by a vote of 2
to 0 at its 9/26/85
meeting.

MINUTE ITEM

23

09/26/85
PRC 6096
Hoagland

DENIAL OF AN APPLICATION FOR A
PREFERENTIAL GEOTHERMAL LEASE

During consideration of Calendar Item 23, attached, Mr. All Finnella, Vice-President of Exploration Engineering, Inc. appeared to state that Exploration Engineering, Inc. has been very diligent in its efforts to obtain financing and develop this lease area.

Commission staff felt the terms of the prospecting permit had not been met by Exploration Engineering, Inc. and recommended denial of the preferential geothermal lease application.

Upon motion made by Commission-Alternate Nancy Ordway and seconded by Acting Chairwoman Rasmussen, the Resolution in Calendar Item 23 was approved, as presented, by a vote of 2-0.

Attachment: Calendar Item 23

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09/26/85
PRC 6096
Hoagland

DENIAL OF AN APPLICATION FOR A
PREFERENTIAL GEOTHERMAL LEASE

APPLICANT: Exploration Engineering, Inc.
Attn: Mr. Larry T. Durkan, President
2278 Market Street
San Francisco, California 94114

AREA, TYPE OF LAND AND LOCATION:
Approximately 1,670 acres of proprietary land
(Developmental Services) at Sonoma State
Hospital, Eldridge, Sonoma County.

DISCUSSION: On December 17, 1981, the Commission authorized
issuance of a geothermal prospecting permit to
Larry T. Durkan of Santa Rosa, California, for
two years from December 20, 1981. The permit
covered an area of approximately 1,670 acres on
the grounds of Sonoma State Hospital at
Eldridge, Sonoma County. Special: Upon
discovery of geothermal resources in commercial
quantities, the Applicant, upon notice to the
Commission within 90 days of the discovery, was
entitled to apply for a preferential lease
under terms described above, subject to the
discretion of the Commission and review of
environmental documentation pertaining to full
field development of the resource. After a
series of assignments and litigation between
Durkan and CIS Financial Services, who provided
funding for the project, the permit was
assigned to Exploration Engineering, Inc.

A well (SS-3) was commenced in July 1982,
drilled to a depth of about 1,500 Feet and then
suspended due to a disagreement between the

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parties over financing. The disagreement was settled by litigation. The Applicant then indicated that adequate financing to proceed with the project would soon be available and requested a one year extension, which was granted commencing December 20, 1983.

In late 1984, the Applicant requested an additional one year extension to secure adequate financing and the necessary agreements to complete the well to discovery and utilize the geothermal resources in a hybrid gas fired turbine generator for production of electricity.

Throughout the project that Applicant made repeated claims that adequate financing was available and that drilling would commence shortly. Staff never saw evidence of funding to complete the project. Because of all the past delays and excuses for failure to perform, staff recommended that the request for one year extension of the permit be denied.

At the Commission meeting November 29, 1984 the Applicant, and representatives of Catalyst Energy which proposed to help secure financing for the project appeared. Representatives of the Department of Developmental Services and staff of the hospital appeared to oppose any further permit extension. The Commission finally granted an extension from December 20, 1984 to January 31, 1985 with the direction that the Applicant meet with staff of the Commission and other state agencies involved and be ready to demonstrate to the Commission that financing was available to complete the well, that progress had been made to secure a contract for sale of the resource and that progress had been made to remove objections voiced by staff of the hospital.

Staff of the Commission, the Attorney General's Office, Department of General Services and the hospital met January 17, 1985 at the hospital with the applicant and representatives of Catalyst. At that time it was indicated that a

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potential financial backer had withdrawn and more time was needed to secure funding. The applicant's representative (Durkan, the original Applicant) then stated to staff that he did not intend to discuss the issues raised by the Commission because he planned to exercise his preferential right to a lease based on the contention that he had found warm water and minerals in the water from the well SS-3 which had commercial value because they could be used to make soap.

On January 31, 1985, because nothing had changed from the previous Commission meeting, staff recommended that the request for an extension of the permit be denied and the Commission denied the extension.

By letter of January 14, 1985 the applicant stated his intention to exercise a preferential right to a lease based on discovery of geothermal resources in commercial quantities to be utilized in the manufacture and marketing of soap (referred to as "Spa In A Bar"). The applicant had indicated earlier they had removed fluids from the mudline while the well was being drilled in 1982, but it was not until January 8, 1985 that Exploration Engineering had "announced" its intention to use fluids from the well for such a commercial venture.

Applicant also indicated that it had discovered geothermal resources in a hand dug well at '85-1. Through sampling in 1982 that hand dug well had been in existence long before Applicant's prospecting permit was issued; however, Applicant had not been given permission to enter the building housing the well opening to take samples or for any other reason.

In late January staff began to analyze the material submitted by Mr. Durkan to support Exploration Engineering's application for a preferential lease. After analyses of a voluminous amount of often conflicting material

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and claims, it is the opinion of staff that the Applicant has failed to establish that geothermal resources in commercial quantities exist at the site and that it is entitled to a preferential lease.

There are several independent reasons which support the staff's recommendation that the application be denied. First of all, the application can be denied on grounds that it was not timely made. The prospecting permit provides that a Applicant must inform the Commission, in writing, of its intention to exercise its preferential right within 90 days of the discovery of geothermal resources in commercial quantities. The permit further provides: "Failure to so inform the Commission will result in an abandonment of the preferential right." In this case the applicant bases its claim primarily on the results of the drilling of well SS-3 which occurred in July of 1982. However, the applicant waited nearly two and one-half years (from the date of drilling until January of 1985) to make its claim of a commercial discovery. The applicant has made no showing that it could not have made its claim within 90 days of drilling.

A second basis for the staff's recommendation that the application be denied, is the fact that the applicant has not shown that naturally heated fluids nor any other geothermal energy source of commercial value exists at the site. The applicant claims he has discovered a geothermal energy source because the drilling crew measured temperatures in the well SS-3 of about 1300 F at 750 feet, and because a Division of Mines and Geology Temperature Survey recorded temperatures of not less than 820F to 920F which proves the flowing zone to be geothermal. However, staff review of the well records of SS-3 do not substantiate applicant's higher temperature claims (nor, as will be discussed subsequently, the claim of a geothermal flowing zone). While mud data from

the well indicates a mud temperature of 132° at 1,452 feet, the well history indicates a maximum temperature of 114°F at the maximum depth of 1,452 feet, recorded by the drilling contractor August 16, 1985 several days after completion of drilling operations. Division of Mines and Geology's temperature survey conducted approximately two weeks after completion of drilling reflects a temperature of 88°F at 750 feet and 99.5°F at 980 feet. (The maximum probe penetration on that date.)

Applicant also claims that a Division of Mines and Geology temperature gradient establishes discovery of a geothermal resources. The Applicant contends that the gradient can be extrapolated to the target well depth of 6,500 feet. However, there is no assurance, short of drilling ahead that the gradient would continue with depth.

In addition, the applicant claims to have encountered a water bearing formation at about 750 feet and cites a Division of Mines and Geology log reference to flow banded volcanics as evidence. The applicant also claims there was a flow from this formation of approximately 880 gallons per minute which he determined by measuring the increase in the level of the mud tank caused by the increased flow. However, the driller's log which should record a sizeable flow into the well and the probable change in the drilling mud program to compensate for this flow contains no mention of these events. Thus, the applicant has made no showing that naturally heated fluids exist at the site.

Despite the applicant's failure to establish the existence of naturally heated fluids or any other geothermal energy source at the site, the applicant claims to be entitled to a lease based upon its contention that waters can be extracted from the site which contain minerals with "balneological" qualities. The applicant

claims that such minerals can be used for the commercial making of "Spa In A Bar" and a number of other products of which he has verbally informed staff. The applicant's "Spa In A Bar" claims are based on the contention that well SS-3 encountered waters that contains minerals which are "most similar" to those in the spring at "Fetter's Hot Springs". The applicant is using water from Fetter's Hot Springs to manufacture soap, the applicant, has failed to show any correlation between the Fetter's Hot Springs water and any waters at the State site.

P.R.C. Section 6903 defines geothermal resources to include "minerals in solution or other products obtained from naturally heated fluids " The applicant's contention in this regard raises the legal question of whether a preferential right to a lease would arise upon the discovery of such minerals without a corresponding discovery of geothermal energy source of commercial value.

This legal question, however, is not controlling insofar as the applicant's "Spa In A Bar" assertions are concerned. The applicant has not shown that any naturally heated fluids or that any minerals in solution or other products of naturally heated fluids exist at the site. For this additional reason and independent of the legal question raised, it is the staff's opinion that the applicant has not made a sufficient showing to obtain a preferential lease.

Next, the applicant has not established that his product, "Spa In A Bar," is commercially viable. While the applicant has made representations that he has sold many units of his product to various commercial companies, he has not submitted any sort of documentation establishing that the product can be produced and sold at a profit. He has thus failed to demonstrate the commercial value of his asserted resource discovery.

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Lastly, even assuming the applicant had permission to utilize waters from the hand-dug well at SS-1, the same deficiencies characterize applicant's claimed discovery of a geothermal resource at this site as at SS-3. The application is untimely as to SS-1 because his asserted discovery at this location took place in June 1982 yet was announced January 8, 1985, a period far exceeding the 90 days specified in the permit or written certification to the Commission. Applicant similarly has not demonstrated that naturally heated fluids, nor that any minerals in solution or other products of naturally heated fluids or that any such discovery exists in commercial quantities.

Finally, the applicant has made no showing that it can manufacture or market "Spa In A Bar" at a profit. The applicant has made representations that he has sold many units of his product to various commercial companies. However, he has not submitted a cost and market analysis demonstrating the soap venture is commercially viable.

In summary, staff recommends denial of the application for a preferential lease for each of the following independent reasons:

1. The application was not timely made, i.e., within 90 days of the purported discovery.
2. The applicant has not provided any significant evidence nor made a sufficient showing that a geothermal heat or energy source exists on the permitted lands.
3. The applicant has not provided any significant evidence nor made a sufficient showing that any minerals in solution or other products of naturally heated fluids exist on the permitted lands.
4. The applicant has made no showing that "Spa In A Bar" can be commercially manufactured and marketed at a profit.

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The applicant has failed to meet the requirements and terms of its prospecting permit and has failed to show that it has a preferential right to a lease; the staff therefore recommends that the application for a preferential lease be denied. The staff's legal counsel has found that this recommendation is consistent with the terms of the permit and relevant provisions of law; and the Attorney General's office concurs in this opinion.

Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 Cal. Adm. Code 15061) the staff has determined that this activity is exempt from the requirements of CEQA because it is not a project as defined by CEQA and the State CEQA Guidelines.

Authority: P.R.C. 21065 and 14 Cal. Adm. Code 15378.

EXHIBIT: A. Location Map.

IT IS RECOMMENDED THAT THE COMMISSION:

1. FIND THAT THE ACTIVITY IS EXEMPT FROM THE REQUIREMENTS OF CEQA PURSUANT TO 14 CAL. ADM. CODE 15061 BECAUSE IT IS NOT A PROJECT AS DEFINED BY P.R.C. 21065 AND 14 CAL. ADM. CODE 15378.
2. DENY WITHOUT PREJUDICE THE APPLICATION OF EXPLORATION ENGINEERING, INC., FOR A PREFERENTIAL GEOTHERMAL LEASE AT SONOMA STATE HOSPITAL BECAUSE THE APPLICANT HAS FAILED TO PROVE THE DISCOVERY OF GEOTHERMAL RESOURCES IN COMMERCIAL QUANTITIES AS PROVIDED BY THE TERMS OF THE PERMIT
3. CONFIRM THE RESOLUTION OF THE COMMISSION ON JANUARY 31, 1985, DIRECTING THE PERMITTEE TO ABANDON WELL "SS-3" IN ACCORDANCE WITH ALL APPROPRIATE RULES AND REGULATIONS AND DIRECT THAT THE PERMITTEE'S BOND WILL NOT BE RELINQUISHED UNTIL THE ABANDONMENT HAS BEEN APPROVED BY THE DIVISION OF OIL AND GAS AND INSP CTED AND APPROVED BY STAFF OF THE COMMISSION; FURTHER THAT EXPLORATION ENGINEERING, INC. BE DIRECTED TO COMPLETE THE WELL ABANDONMENT BY NOVEMBER 30, 1985.

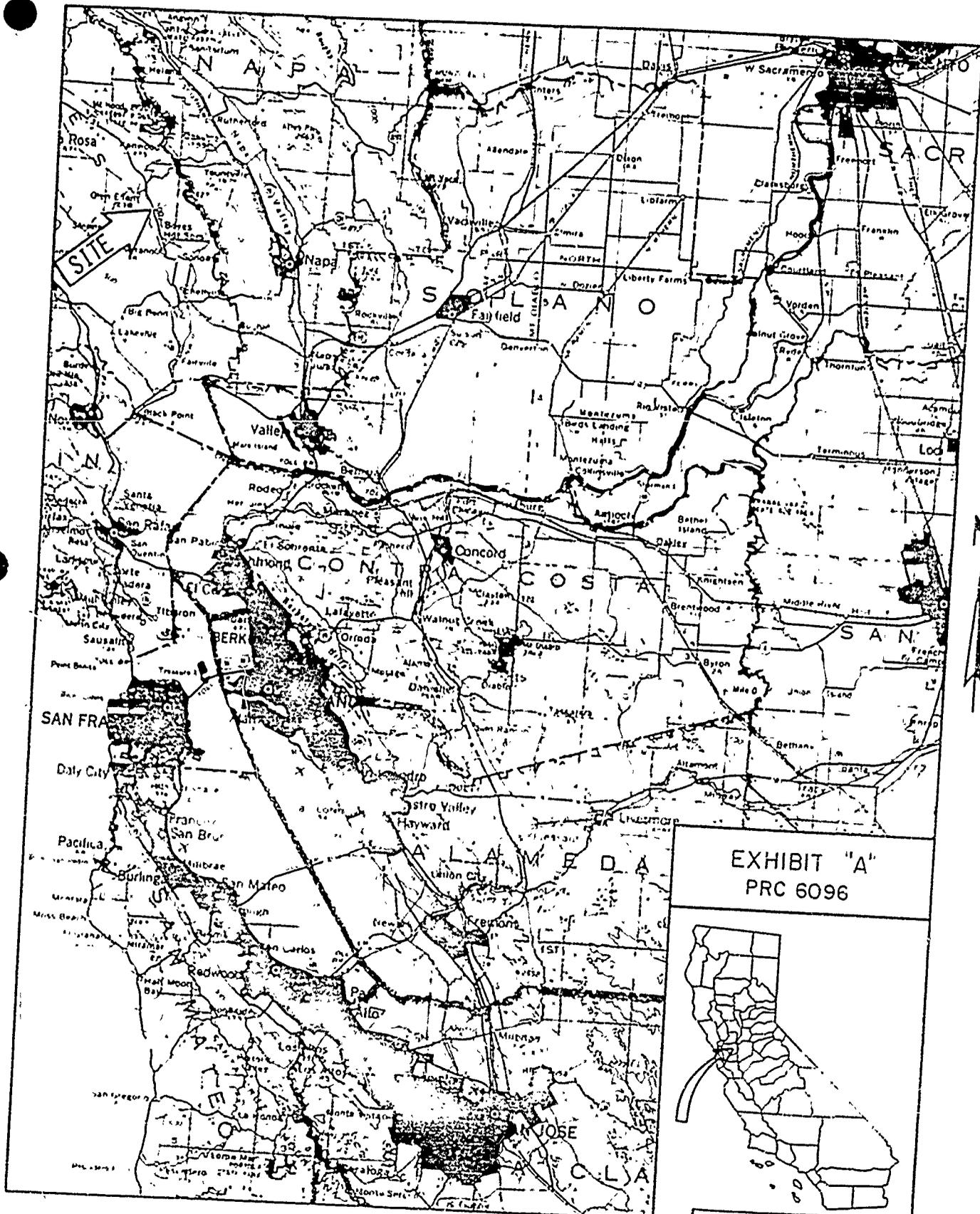


EXHIBIT "A"
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