DMEA Form 7
(12-56)

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FEB 28 1957

Mr. Ernest E. Thurlow, Manager
Denver Area Office AEC
P. O. Box 7647
Lakewood Branch
Denver 2, Colorado

Subject: DMEA Field Team Uranium Examination Reports

Dear Mr. Thurlow:

Enclosed are single copies of the following reports which should complete your file on reports of uranium field examinations made in DMEA Region IV to date:

1. Docket No. DMEA-3763, Ozarks Explorations Company, Inc., Camden and Laclede Counties, Missouri, September 26, 1955, by T. D. Hallows and C. C. Knox.

2. Docket No. DMEA-3805, Andrus Oil Company, Hudspeth County, Texas, August 25, 1955, by C. C. Knox and D. F. Maclaren.

3. Docket No. DMEA-4211, Lone Star Uranium Corporation, Burnet County, Texas, January 15, 1957, by R. U. King and C. C. Knox.

4. Docket No. DMEA-4304, Louis A. Sanford, Pawnee County, Oklahoma, August 16 and 22, 1956, by C. C. Knox and R. U. King, respectively.

5. Docket No. DMEA-4105, Ozarks Explorations Company, Inc., Camden and Laclede Counties, Missouri, January 29, 1957, by C. C. Knox.

In addition, the final Field Team report, with attachments, on Docket No. DMEA-2924, Ute and Knox, Pawnee County, Oklahoma, September 24, 1954, and January 17, 1955, by C. C. Knox and E. P. Barnes, respectively, is enclosed.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosures

OCSelfridge/ear 2/27/57
cc to: FT, REG. IV (2)
Dockets (6)
Admr. R. File
Oper. Comm.
FDLamb, USBM
THWillingham, USGS
OCSelfridge (2)

8623

DMEA-4304
Might also look
up DMEA-2924
(Uto & Knox)

EWB
6-12-56

Joe Hosted came in
today with a small
sheaf of info. AEC
does not evidently have
much to go on. They are
asking applicant for samples.
MAY be in District in
July.

Surname copy

700

Murphy
Kiilsgaard
Lamb
Selfridge

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

SEP 12 1956

Mr. Louis A. Sanford
R. R. #1
Pawnee, Oklahoma

Re: Docket No. DMEA-4304 (Uranium)
W½ of NW¼ of sec. 20, T. 23 N., R. 5 E.
Pawnee County, Oklahoma

Dear Mr. Sanford:

Your application for aid in an exploration project and other information available to us in Washington concerning the above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting some uranium mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied. However, this denial is made without prejudice to the property. In the event further work on your part discloses new and more favorable evidence of ore deposition on the property, we shall be pleased to consider a new application.

We wish to thank you for your interest in the Defense Minerals Exploration Program and for bringing your property to our attention.

Sincerely yours,

Frank E. Johnson (Typed)

ACTING Administrator

FMMurphy/gla
9-7-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Murphy
DMEA Field Team, Region IV (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

DOCKET COPY

September 7, 1956

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4304

Commodity: Uranium

Applicant: Louis A. Sanford
R. R. #1
Pawnee, Oklahoma

Property: Owner: W½ of NW¼ of sec. 20, T. 23 N., R. 5 E., Pawnee County, Oklahoma

Date of application: May 19, 1956

Amount of application: $1,920.00

Referred to Region IV - June 18, 1956
Preliminary Examination Report by C. C. Knox received: August 16, 1956
Geological Report by R. U. King received: August 22, 1956

Work Proposed and Costs:

Four drill holes to an average depth of 240 feet @ $2.00/ft. $1,920.00

Excerpts from R. U. King's report:

Uranium occurrences have been discovered within the last few years in the Permian "red-beds" of the Garber formation in northeast and southwest Oklahoma. However, to date, not one of the discoveries has resulted in the development of any deposit of commercial significance.

The Applicant claims to have discovered a "vein type" uranium deposit 22 feet in thickness, at a depth of from 217 to 239 feet, in a churn drill hole originally put down for a domestic water supply. The ore is said to consist of 7 feet of 5%, 12 feet of 1%, and 3 feet of low-grade uranium, based on a gamma-ray log of the hole. Subsequently, 6 additional holes were drilled around the discovery hole; radioactivity was noted in two, and the remaining four holes were barren.

Mineralogic tests of a sample of cuttings from the discovery hole indicate that the material, consisting of arkosic sandstone, as a whole is in radioactive disequilibrium by a ratio of 10 to 1. Although uraninite was found to be present, the radioactivity is probably due to a relatively large amount of radioactive barite. From a non-magnetic mineral fraction that contained 1.54% eU, a positive uranium flux test was obtained. Two additional magnetic separations of the same sample that contained 1.27 and 1.65% eU gave negative uranium flux tests. Each of the mineral separates contained large amounts of barite.

The results of gamma-ray logging of the discovery hole by the AEC substantiates the Applicant's discovery of highly radioactive material, but the AEC log indicates a radioactive content of from 0.1 to 0.5% eU in contrast to the 1.0 to 5.0% eU claimed by the Applicant. Inasmuch as a disequiligrium ratio of 10 to 1 is indicated, it is probable that a content of about 0.01 to 0.05% U is all that can be expected of the deposit.

Mr. King suggests a possible program consisting of a core hole to duplicate the discovery hole to obtain structural and stratigraphic information on the host rocks, and later drill 5 to 10 holes to explore a possible ore zone, but notes that such a program appears to be prospecting.

The Field Team agrees with Mr. King and recommends the subject application be denied without prejudice.

Commodity Members' comments (excerpts):

U. S. Geological Survey, Mr. W. P. Williams, August 31, 1956.

Mr. Williams notes that the occurrence of anomalous radioactive areas in the "red-beds" have been known for a long time. The radioactivity is usually associated with carbonaceous and petroliferous residues in a gray shaly matrix. Copper mineralization is commonly associated with the radioactivity. The deposits may represent future, scattered, low-grade reserves.

Mr. Williams recommends the application be denied as it seems doubtful that exploration work on the property would result in the discovery of significant amounts of presently exploitable uranium ore.

U. S. Bureau of Mines, J. E. Crawford, September 6, 1956

Mr. Crawford recommends the application be denied without prejudice.

Rare and Miscellaneous Metals Division, F. M. Murphy, September 7, 1956

The Applicant has drilled seven holes on the subject property. Radiometric logging by the AEC of the discovery hole indicates mineralization ranging from 0.1 to 0.5% eU. Because of a disequilibrium ratio of 10 to 1 of samples of cuttings from the hole, the uranium content of the material is judged to range from 0.01 to 0.05 U. % Four other holes drilled near the discovery hole were barren, two were slightly mineralized.

Conclusions and Recommendation:

Specific geological information on the area appears to be lacking; therefore, this Division concurs in the Field Team's recommendation to deny the subject application without prejudice. If future work by the Applicant or other parties in the area discloses more favorable information that indicates the possibility that ore-grade deposits of uranium might occur in the "red-beds", then a new application should receive consideration.

Ernest Wm. Ellis

Ernest Wm. Ellis

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Washington 25, D. C.

RECEIVED
SEP - 6 1956

Date September 6, 1956

DMEA Docket No. 4304
DMEA Contract No.
Commodity Uranium
Name of applicant Louis A. Sanford
Name of property
Location of property Pawnee County, Oklahoma
Estimated cost of project

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee
From: John E. Crawford, Bureau of Mines
Uranium Commodity Committee
Subject: Review of Preliminary Examination Report
(Application, Field Team Report, etc.)

1. Date of subject document: 8/14. 2. Date received by reviewer: 8/20

3. Prior reports on this property known to reviewer: Yes [ ], No [x].

4. Prior reports on nearby properties known to reviewer: Yes [ ], No [x].

5. Information available on past production: Yes [ ], No [x].

6. Other pertinent factors known to reviewer: Yes [ ], No [x].

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration method [ ]
   f. Alternate exploration method [ ]
   g. Costs [ ]
   h. [ ]

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [ ]
   c. Denial [x] without prejudice
   d. Agree with Field Team [ ]
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [ ]
   i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary)
Mr. Joseph O. Hosted, Washington representative of the Atomic Energy Commission, assisted in the review.

8/31/56

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

August 31, 1956

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4304, Louis H. Sanford, Pawnee County, Oklahoma

The examining geologist reports that because of radioactive disequilibrium the grade of the material in the 'discovery' drill hole on the property could only be expected to be about 0.01 to 0.05 percent uranium.

Anomalously radioactive areas have been known in Permian red beds over a large part of Oklahoma for a long time. Radioactivity is usually associated with carbonaceous and petroliferous residues in a gray shaly matrix. Copper mineralization is commonly associated with the radioactivity. None of the anomalous areas have, however, ever contained enough material of high enough grade to constitute uranium ore as defined at present. The deposits may represent future, scattered, low-grade reserves.

It seems doubtful that exploration work on the property would result in the discovery of significant amounts of presently exploitable uranium ore. I recommend that the application be denied.

W. P. Williams

W. P. Williams

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AUG 31 1956

8/31/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

August 24, 1956

Memorandum

To: DMEA Operating Committee, Department of the Interior, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region IV

Subject: Geologic section of Field Examination Report
Application DMEA-4304 (uranium)
Louis A. Sanford, Route 1, Pawnee, Oklahoma
W/2 NW/4 sec. 20, T. 33 N., R. 5 E.
Pawnee County, Oklahoma

Forwarded herewith are six of the copies of a geologic report received this morning from Robert U. King, USGS, Denver.

Augmenting my August 14 memo reporting my visit to the cited property, needless to say I am in complete concurrence with Mr. King's recommendation for denial of this application without prejudice to the property.

Clinton C. Knox

CCK/enn

Clinton C. Knox

encl.(6)
cc: DMEA Op.Com.(3)
King, USGS, Denver
4304 file

RECEIVED
AUG 27 1956

Reviewed by
DMEA OPERATING COMMITTEE
8-31-56
(date)

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IN REPLY REFER TO:
MINERALS TECHNOLOGY
DIVISION
AUG 24 1956
BUREAU OF MINES
JOPLIN, MO.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

August 22, 1956

Memorandum

RECEIVED
AUG 27 1956

To: C. C. Knox, Executive Officer
DMEA Field Team, Region IV
Through: E. N. Harshman

From: Robert U. King

Subject: Application DMEA 4304 (Uranium), Louis H. Sanford, R. 1, Pawnee, Oklahoma, w/2 NW/4 sec. 20, T. 23 N., R. 5 E., Pawnee County, Oklahoma. Recommendation for denial without prejudice.

The applicant, L. E. Sanford, on May 17, 1956, requested DMEA assistance to explore for uranium on his property in the W/2, NW/4, sec. 20, T. 23 N., R. 5 E., Pawnee County, Oklahoma. The applicant proposes to drill four holes around his discovery hole and, dependent on these results, to drill additional holes to determine the trend and size of the deposit.

The matter was discussed with H. E. Stafford of the Denver Office, AEC, who made available results of mineralogic and chemical tests on a sample from the deposit. The lack of geologic information about the attitude and character of the deposit and its host rocks, and the small size of the deposit indicated by the applicant's prospecting leads me to conclude that the property does not warrant further exploration. However, because the discovery is in a new and relatively untested area, further geologic investigation and prospecting may disclose pertinent information regarding the uranium potential of the area, it is recommended that the application be denied without prejudice.

Uranium occurrences have been discovered within the last few years in the Permian "red-beds" of the Garber formation in the northeastern and southwestern Oklahoma. It is not certain, however, whether the uranium discovery in the churn drill hole on the applicant's property is in the basal units of the Permian rocks or in the upper part of the underlying Vanoss formation of Pennsylvanian age.

The sedimentary rocks in the vicinity of the discovery are essentially flat-lying, with dips of from 30 to 50 feet per mile to the west. There are no known vein deposits in the area, and the closest faults mapped are 20 miles to the southeast.

Reviewed by
DMEA OPERATING COMMITTEE
8-31-56
(date)

Although a number of uranium occurrences have been discovered in recent years, the search has not yet resulted in the development of any deposits of commercial significance.

The applicant claims to have discovered a "vein-type" uranium deposit 22 feet in thickness at a depth of from 217 to 239 feet in a churn drill hole, originally put down for a domestic water supply. The "uraninite ore" is said to consist of 7 feet of 5 percent, 12 feet of 1 percent, and 3 feet of low-grade uranium, based on a gamma-ray log of the hole. Subsequently, 6 additional holes were drilled around the discovery hole; radioactivity was noted in two, and the remaining 4 holes were barren.

Mineralogic tests of a sample of well cuttings from the discovery hole indicate that the material, consisting of arkosic sandstone, as a whole is in radioactive disequilibrium by a ratio of 10 to 1. Although uraninite was found to be present, the radioactivity is probably due to a relatively large amount of radioactive barite. From a non-magnetic mineral fraction that contained 1.54 percent eU, a positive uranium flux test was obtained. Two additional magnetic separations of the same sample that contained 1.27 and 1.65 percent eU gave negative uranium flux tests. Each of the three mineral separates contained large amounts of barite.

The results of gamma-ray logging by the AEC of the discovery hole substantiates the applicant's discovery of highly radioactive material, but the AEC log indicates a radioactive content of from 0.1 to 0.5 percent eU in contrast to the 1.0 to 5.0 percent eU claimed by the applicant. Inasmuch as a disequilibrium ratio of 10 to 1 in favor of radioactivity is indicated for the material, it is probable that a content of about 0.01 to 0.05 percent uranium is all that can be expected from the deposit.

A possible exploratory program might consist of a 250-foot core hole to repeat the applicant's discovery hole to obtain structural and stratigraphic information on the host rocks, and the possible ore zone, to be followed with 5 to 10 holes whose location, spacing, and inclination could not be determined from information at hand. Such a program appears to be prospecting and as such probably would not come within DMEA regulations.

Robert U. King

Robert U. King

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IN REPLY REFER TO:

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MINERALS TECHNOLOGY
DIVISION
AUG 24 1956
BUREAU OF MINES
JOPLIN, MO.

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver Colorado

August 22 1956

RECEIVED
AUG 27 1956

Memorandum

To: C. C. Knox, Executive Officer
DMEA Field Team, Region IV
Through: E. N. Harshman

From: Robert U. King

Subject: Application DMEA 4304 (Uranium), Louis E. Sanford, R. 1, Pawnee, Oklahoma, W/2 NW/4 sec. 20, T. 23 N., R. 5 E., Pawnee County, Oklahoma. Recommendation for denial without prejudice.

The applicant L. E. Sanford on May 17, 1956 requested DMEA assistance to explore for uranium on his property in the W/2 NW/4 sec. 20 T. 23 N., R. 5 E., Pawnee County, Oklahoma. The applicant proposes to drill four holes around his discovery hole and, dependent on these results, to drill additional holes to determine the trend and size of the deposit.

The matter was discussed with H. E. Stafford of the Denver Office AEC who made available results of mineralogic and chemical tests on a sample from the deposit. The lack of geologic information about the attitude and character of the deposit and its host rocks, and the small size of the deposit indicated by the applicant's prospecting leads me to conclude that the property does not warrant further exploration. However, because the discovery is in a new and relatively untested area, further geologic investigation and prospecting may disclose pertinent information regarding the uranium potential of the area. It is recommended that the application be denied without prejudice.

Uranium occurrences have been discovered within the last few years in the Permian "red-beds" of the Garber formation in the northeastern and southeastern Oklahoma. It is not certain, however, whether the uranium discovery in the churn drill hole on the applicant's property is in the basal units of the Permian rocks or in the upper part of the underlying Vanoss formation of Pennsylvanian age.

The sedimentary rocks in the vicinity of the discovery are essentially flat-lying, with dips of from 30 to 50 feet per mile to the west. There are no known vein deposits in the area, and the closest faults mapped are 20 miles to the southeast.

Although a number of uranium occurrences have been discovered in recent years, the search has not yet resulted in the development of any deposits of commercial significance.

The applicant claims to have discovered a "vein-type" uranium deposit 22 feet in thickness at a depth of from 217 to 239 feet in a churn drill hole, originally put down for a domestic water supply. The "uraninite ore" is said to consist of 7 feet of 5 percent, 12 feet of 1 percent, and 3 feet of low-grade uranium, based on a gamma-ray log of the hole. Subsequently, 6 additional holes were drilled around the discovery hole; radioactivity was noted in two, and the remaining 4 holes were barren.

Mineralogic tests of a sample of well cuttings from the discovery hole indicate that the material, consisting of arkosic sandstone, as a whole is in radioactive disequilibrium by a ratio of 10 to 1. Although uraninite was found to be present, the radioactivity is probably due to a relatively large amount of radioactive barite. From a non-magnetic mineral fraction that contained 1.54 percent eU, a positive uranium flux test was obtained. Two additional magnetic separations of the same sample that contained 1.27 and 1.65 percent eU gave negative uranium flux tests. Each of the three mineral separates contained large amounts of barite.

The results of gamma-ray logging by the AEC of the discovery hole substantiates the applicant's discovery of highly radioactive material, but the AEC log indicates a radioactive content of from 0.1 to 0.5 percent eU in contrast to the 1.0 to 5.0 percent eU claimed by the applicant. Inasmuch as a disequilibrium ratio of 10 to 1 in favor of radioactivity is indicated for the material, it is probable that a content of about 0.01 to 0.05 percent uranium is all that can be expected from the deposit.

A possible exploratory program might consist of a 250-foot core hole to repeat the applicant's discovery hole to obtain structural and stratigraphic information on the host rocks, and the possible ore zone, to be followed with 5 to 10 holes whose location, spacing, and inclination could not be determined from information at hand. Such a program appears to be prospecting and as such probably would not come within DMEA regulations.

Robert U. King

Robert U. King

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IN REPLY REFER TO:

RECEIVED
MINERALS TECHNOLOGY
DIVISION

AUG 24 1956

BUREAU OF MINES
JOPLIN, MO.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver Colorado

August 22 1956

RECEIVED
AUG 27 1956

Memorandum

To: C. C. Knox, Executive Officer
DMEA Field Team, Region IV
Through: E. N. Harshman

From: Robert G. King

Subject: Application DMEA 4316 (Uranium), Louis E. Stafford, R. 1, Pawnee, Oklahoma, W/2 NW/4 sec. 20 T. 23 N. R. 5 E. Pawnee County, Oklahoma. Recommendation for denial without prejudice.

The applicant L. E. Stafford on May 17, 1956 requested DMEA assistance to explore for uranium on his property in the W/2 NW/4 sec. 20 T. 23 N. R. 5 E., Pawnee County, Oklahoma. The applicant proposes to drill four holes around his discovery hole and, dependent on these results, to drill additional holes to determine the trend and size of the deposit.

The matter was discussed with M. K. Stafford of the Denver Office, AEC who made available results of mineralogic and chemical tests on a sample from the deposit. The lack of geologic information about the attitude and character of the deposit and its host rocks and the small size of the deposit indicated by the applicant's prospecting leads us to conclude that the property does not warrant further exploration. However because the discovery is in a new and relatively untested area, further geologic investigation and prospecting may disclose pertinent information regarding the uranium potential of the area. It is recommended that the application be denied without prejudice.

Uranium occurrences have been discovered within the last few years in the Permian "red-beds" of the Garber formation in the northeastern and southwestern Oklahoma. It is not certain, however, whether the uranium discovery in the churn drill hole on the applicant's property is in the basal units of the Permian rocks or in the upper part of the underlying Wewoka formation of Pennsylvanian age.

The sedimentary rocks in the vicinity of the discovery are essentially flat-lying, with dips of from 30 to 50 feet per mile to the west. There are no known vein deposits in the area and the closest faults mapped are 20 miles to the southeast.

Although a number of uranium occurrences have been discovered in recent years, the search has not yet resulted in the development of any deposits of commercial significance.

The applicant claims to have discovered a "vein-type" uranium deposit 22 feet in thickness at a depth of from 217 to 239 feet in a churn drill hole, originally put down for a domestic water supply. The "uraninite ore" is said to consist of 7 feet of 5 percent 12 feet of 1 percent, and 3 feet of low-grade uranium, based on a gamma-ray log of the hole. Subsequently, 6 additional holes were drilled around the discovery hole; radioactivity was noted in two and the remaining 4 holes were barren.

Mineralogic tests of a sample of well cuttings from the discovery hole indicate that the material, consisting of arkosic sandstone as a whole is in radioactive disequilibrium by a ratio of 10 to 1. Although uraninite was found to be present, the radioactivity is probably due to a relatively large amount of radioactive barite. From a non-magnetic mineral fraction that contained 1.54 percent eU, a positive uranium flux test was obtained. Two additional magnetic separations of the same sample that contained 1.27 and 1.65 percent eU gave negative uranium flux tests. Each of the three mineral separates contained large amounts of barite.

The results of gamma-ray logging by the AEC of the discovery hole substantiates the applicant's discovery of highly radioactive material but the AEC log indicates a radioactive content of from 0.1 to 0.5 percent eU in contrast to the 1.0 to 5.0 percent eU claimed by the applicant. Inasmuch as a disequilibrium ratio of 10 to 1 in favor of radioactivity is indicated for the material it is probable that a content of about 0.01 to 0.05 percent uranium is all that can be expected from the deposit.

A possible exploratory program might consist of a 250-foot core hole to repeat the applicant's discovery hole to obtain structural and stratigraphic information on the host rocks, and the possible ore zone to be followed with 5 to 10 holes whose location, spacing, and inclination could not be determined from information at hand. Such a program appears to be prospecting and as such probably would not come within DMEA regulations.

Robert U. King

Robert U. King

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8/21/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

August 14, 1956

Memorandum

To: DMEA Operating Committee, Interior Building, Washington 25, D. C.

RECEIVED
AUG 16 1956

From: C. C. Knox, DMEA Field Team, Region IV

Subject: Preliminary Examination Report
Application Docket DMEA-4304 (uranium)
Louis A. Sanford, Route 1, Pawnee, Oklahoma
W/2 of NW/4 section 20, T. 23 N., R. 5 E.
Pawnee County, Oklahoma

Following your June 18 letter referring the cited application to the Field Team, I had the opportunity to spend July 16 on this prospect with H. S. Stafford and W. B. Meeks of the Denver A.E.C. Office and the applicant, Mr. Louis A. Sanford, who resides on the property.

Based on detailed discussions with each of those men, all the data available to me, and the meager indications in evidence at this uranium prospect, I concluded that an examination by the Geological Survey Member of the Field Team from his Denver Office was not warranted. I understand, however, that his opinions, regardless of this preliminary conclusion of mine, will be formed authoritatively in his forthcoming report and recommendations to augment this memo on the basis of all the pertinent data available there including those from the laboratory work by the Geological Survey in Denver on some drill hole cuttings previously furnished by the Applicant, and all that the A.E.C. Geologists will make available from their Denver files.

Unquestionably, the indications of radioactive minerals in the discovery well which had been churn drilled for water without regard to any geologic implications, are of unusual interest. The close proximity of the surrounding non-indicative prospect holes drilled more recently, leaves little in the way of a uranium exploration program which I believe could be approved under DMEA regulations. There seems to be no reasonable geologic inference that the "vein-type deposit of uraninite ore", as visualized by the Applicant, actually might exist. The primary objective of any exploration program that could be devised for this prospect,

Reviewed by
DMEA OPERATING COMMITTEE
8-20-56
(date)

obviously would be to virtually duplicate the work which has been done there; i.e., core drilling beside the most indicative of the existing holes and thus obtaining adequate records thereon. Mr. Sanford expressed doubt that he could afford to pay his share of costs if core drilling and employment of competent technical supervision were deemed necessary on his proposed exploration project. He said, however, that he would obtain estimates and contact technical men in an effort to learn if he could afford a comprehensive exploration program. He is a farmer, returned from retirement in California, and evidently is not sufficiently versed on prospect drilling to properly conduct all the work which has been, and yet might be done there.

The property is located about 9 miles north of the town of Pawnee, bounded on the west by oiled State Highway 18.

Mr. Sanford expressed doubt whether a subordination agreement could be obtained from the holder of the mortgage on the 80-acre tract, if a DMEA project contract were to be offered.

The tract is partly rolling pastures but some fairly level fields are under cultivation. The discovery churn drill hole is along the driveway on the south side of the Sanford residence, near the southwest corner of a garage, about 300 feet southeast of the northwest corner of section 20.

It was drilled in an unsuccessful attempt to provide a more adequate domestic water supply but long afterward the cuttings, washed and scattered around the grassy site by the rains, were indicated to be radioactive. Mr. Sanford said that no radioactivity was indicated in his original water well about 50 feet to the north from which the domestic water is pumped. Recently, the other five holes were drilled with a small rotary rock-bit, 7, 12, 17 and up to about 100 feet away from the discovery churn drill hole, as indicated on the sketch map submitted with the application, and on locations Mr. Sanford showed us during the examination. He stated that except for the discovery well on which his only copy of the radiometric log by Robinson and Herserodt of Tulsa, was submitted with the original of the application, only the hole 12 feet west indicated appreciable radioactivity (also on the 220 to 240-foot horizons). The radiometric recording Stafford and Meeks made in my presence with the A.E.C. scintillometer drill hole probe in the discovery churn drill hole, found open to 239 feet (8-inch casing to 105 feet), appeared to virtually duplicate the above-mentioned log submitted with the application.

The washed sludge remaining around that hole site evidently was like that in the cutting sample previously submitted by Mr. Sanford through the A.E.C. to the Denver laboratories of the Geological Survey. Upon my arrival and first meeting with Meeks and Stafford in Pawnee the morning of July 16, the latter summarized a telephonic preliminary report just received on that sample from that Geological Survey laboratory. The content of that sample was reported to be largely sand, shale, limestone, barite and hematite in which at least traces of uraninite and

sphalerite with possibly some rare earths (but no thorium) had been detected. The indicated eU was 0.09 but actual $U_3O_8$ content, only 0.02 percent.

Virtually no geological data were available and no clue as to the stratigraphy was afforded by the penciled driller's logs Mr. Sanford had available on two of the drill holes. Apparently this inferred deposit differs in several respects from that at the Uto uranium prospect (DMEA-2924), 8 miles southwest, and the Otoe Copper prospects, 2 miles farther southwest, both of which we also visited late that afternoon upon completing this preliminary examination of the Sanford property. I understand, however, that a geologic report and recommendations, made more properly from that viewpoint, will be forthcoming shortly from the Geological Survey Member of the Field Team in Denver, based on whatever pertinent information might be found available in both the Geological Survey and A.E.C. files.

Except for drilling the seven holes mentioned above, the only other such operations on this Applicant's 80-acre property was in a shallow open pit, as pointed out to us by Mr. Sanford, about 800 feet south of his residence. He stated that the hard crushed "limestone" obtained from that pit constituted the road metal for hard-surfacing of that section of the State Highway 18; also, that the limestone contained vanadium mineralization.

In the event that the forthcoming geologic appraisal of this application indicates that further exploration at this Sanford uranium prospect definitely can be construed as a proper function of DMEA, I stand ready to correspond further with the Applicant in an effort to devise proper engineering specifications for any DMEA project contract that might be recommended geologically.

Clinton C. Knox

CCK/enn

Clinton C. Knox

cc: DMEA Op. Com. (3) w/x-tra cc: A.E.C., Wash.
Harshman, USGS, Denver
Stafford, A.E.C., Denver
4304 file
Knox

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

August 14, 1956

Memorandum

To: DMEA Operating Committee, Interior Building, Washington 25, D. C.

From: C. C. Knox, DMEA Field Team, Region IV

Subject: Preliminary Examination Report
Application Docket DMEA-430A (uranium)
Louis A. Sanford, Route 1, Pawnee, Oklahoma
W/2 of NW/4 section 20, T. 23 N., R. 5 E.
Pawnee County, Oklahoma

Following your June 18 letter referring the cited application to the Field Team, I had the opportunity to spend July 16 on this prospect with H. S. Stafford and W. R. Meeks of the Denver A.E.C. Office and the applicant, Mr. Louis A. Sanford, who resides on the property.

Based on detailed discussions with each of these men, all the data available to me, and the meager indications in evidence at this uranium prospect, I concluded that an examination by the Geological Survey Member of the Field Team from his Denver Office was not warranted. I understand, however, that his opinions, regardless of this preliminary conclusion of mine, will be formed authoritatively in his forthcoming report and recommendations to augment this memo on the basis of all the pertinent data available there including those from the laboratory work by the Geological Survey in Denver on some drill hole cuttings previously furnished by the Applicant, and all that the A.E.C. Geologists will make available from their Denver files.

Unquestionably, the indications of radioactive minerals in the discovery well which had been churn drilled for water without regard to any geologic implications, are of unusual interest. The close proximity of the surrounding non-indicative prospect holes drilled more recently, leaves little in the way of a uranium exploration program which I believe could be approved under DMEA regulations. There seems to be no reasonable geologic inference that the "vein-type deposit of uraninite ore", as visualized by the Applicant, actually might exist. The primary objective of any exploration program that could be devised for this prospect,

Reviewed by
DMEA OPERATING COMMITTEE
8-20-56
(date)

obviously would be to virtually duplicate the work which has been done there; i.e., core drilling beside the most indicative of the existing holes and thus obtaining adequate records thereon. Mr. Sanford expressed doubt that he could afford to pay his share of costs if core drilling and employment of competent technical supervision were deemed necessary on his proposed exploration project. He said, however, that he would obtain estimates and contact technical men in an effort to learn if he could afford a comprehensive exploration program. He is a farmer, returned from retirement in California, and evidently is not sufficiently versed on prospect drilling to properly conduct all the work which has been, and yet might be done there.

The property is located about 9 miles north of the town of Farmer, bounded on the west by Ohio State Highway 13.

Mr. Sanford expressed doubt whether a subordination agreement could be obtained from the holder of the mortgage on the 80-acre tract, if a DMEA project contract were to be offered.

The tract is partly rolling pastures but some fairly level fields are under cultivation. The discovery churn drill hole is along the driveway on the south side of the Sanford residence, near the southwest corner of a garage, about 300 feet southeast of the northwest corner of section 29.

It was drilled in an unsuccessful attempt to provide a more adequate domestic water supply but long afterward the cuttings, washed and scattered around the grassy site by the rains, were indicated to be radioactive. Mr. Sanford said that no radioactivity was indicated in his original water well about 50 feet to the north from which the domestic water is pumped. Recently, the other five holes were drilled with a small rotary rock-bit, 7, 12, 17 and up to about 180 feet away from the discovery churn drill hole, as indicated on the sketch map submitted with the application, and on locations Mr. Sanford showed us during the examination. He stated that except for the discovery well on which his only copy of the radiometric log by Robinson and Meredith of Tulsa, was submitted with the original of the application, only the hole 12 feet west indicated appreciable radioactivity (also on the 220 to 240-foot horizons). The radiometric recording Stafford and Meeks made in my presence with the A.E.C.' scintillometer drill hole probe in the discovery churn drill hole, found open to 239 feet (8-inch casing to 105 feet), appeared to virtually duplicate the above-mentioned log submitted with the application.

The washed sludge remaining around that hole site evidently was like that in the cutting sample previously submitted by Mr. Sanford through the A.E.C. to the Denver laboratories of the Geological Survey. Upon my arrival and first meeting with Meeks and Stafford in Farmer the morning of July 16, the latter summarized a telephonic preliminary report just received on that sample from that Geological Survey laboratory. The content of that sample was reported to be largely sand, shale, limestone, barite and hematite in which at least traces of uraninite and

sphalerite with possibly some rare earths (but no thorium) had been detected. The indicated eU was 0.09 but actual $U_3O_8$ content, only 0.02 percent.

Virtually no geological data were available and no clue as to the stratigraphy was afforded by the penciled driller's logs Mr. Sanford had available on two of the drill holes. Apparently this inferred deposit differs in several respects from that at the Ute uranium prospect (DMEA-298A), 8 miles southwest, and the Otero Copper prospects, 2 miles further southwest, both of which we also visited late that afternoon upon completing this preliminary examination of the Sanford property. I understand, however, that a geologic report and recommendations, made more properly from that viewpoint, will be forthcoming shortly from the Geological Survey Member of the Field Team in Denver, based on whatever pertinent information might be found available in both the Geological Survey and A.E.C. files.

Except for drilling the seven holes mentioned above, the only other such operations on this Applicant's 80-acre property was in a shallow open pit, as pointed out to us by Mr. Sanford, about 600 feet south of his residence. He stated that the hard crushed "limestone" obtained from that pit constituted the road metal for hard-surfacing of that section of the State Highway 18; also, that the limestone contained vanadium mineralization.

In the event that the forthcoming geologic appraisal of this application indicates that further exploration at this Sanford uranium prospect definitely can be construed as a proper function of DMEA, I stand ready to correspond further with the Applicant in an effort to devise proper engineering specifications for any DMEA project contract that might be recommended geologically.

Clinton C. Knox

CCK/ccm

Clinton C. Knox

cc: DMEA Op.Gen.(3) w/2-trs cc: A.E.C., Wash.
Marshman, USGS, Denver
Stafford, A.E.C., Denver
A304 File
Knox

X-ha copy sent to DMEA Co. Com. 6-25-56

IN REPLY REFER TO:

RECEIVED
MINERALS TECHNOLOGY
DIVISION
JUN 25 1956
BUREAU OF MINES
JOPLIN, MO.

7-12-56

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

June 22, 1956

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
Bureau of Mines
P. O. Box 431
Joplin, Missouri

RECEIVED
JUL 11 1956

Re: DMEA Docket 4304 (Uranium)
Louis A. Sanford
W½ of NW¼ of sec. 20, T.23 N.,R.5 E.
Pawnee County, Oklahoma

Dear Clint:

I have just received the Survey copy of the Louis A. Sanford application for exploration assistance on his Pawnee County, Oklahoma, property (DMEA Docket 4304).

I discussed this application with E. P. Beroni and H. S. Stafford of the Denver Exploration Branch of the AEC and was told that they plan to look over the property some time early in July. They do not think that it is worthy of DMEA assistance but have little or no factual evidence upon which to base a denial.

It appears that the radioactivity may not be due to $U_3O_8$, but they are now checking some samples sent to them by the applicant.

At the moment I have only one field man in this office, but on July 1 I will get two more. Needless to say, I could not possibly get to this application before the second week in July, but after that date could send a man to make the examination with you.

If time schedules permit, it might be advisable to examine the property at the time the AEC looks at it, but it may prove difficult to get the three groups coordinated.

If you will let me know when you will be in a position to take a look at the property (after July 8, 1956), I will attempt to get together with the AEC and arrange a firm date for examination. If this falls through, I will send a man from here at your convenience.

The above is all based on the assumption that you deem an examination to be necessary; this may not be the case.

If you prefer to hold up the examination until after looks at the property and we get the facts from them, let know; we might save time and energy should the property prove be a complete dud.

Sincerely yours,

E. N. Harshman

E. N. Harshman
Member, Field Team, Region III

Copy to: T. H. Kiilsgaard

ENHarshman:arh

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
JUL 11 1956

July 9, 1956

Mr. Louis A. Sanford
Route 1
Pawnee, Oklahoma

Re: DMEA-4304 (uranium)
W/2. NW/4 Sec. 20, T. 23N., R.5E.
Pawnee County, Oklahoma

Dear Mr. Sanford:

Receipt of your letter of July 3 with some additional data on your uranium prospect hereby is acknowledged. Copies were made and the originals of the letters and uranium analyses are returned herewith as you requested.

Mr. Howard Stafford, U. S. Atomic Energy Commission, Denver Exploration Branch, notified me this morning that he will examine your prospect next Monday, July 16. Therefore, since I will be en-route then to make DMEA Field Team examinations in southwestern Texas, I agreed to join him in Pawnee about 10 A.M. that morning, and accompany him to your property.

Expecting to meet you then at the property, I am,

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer

encl.
cc: DMEA Op.Com.(2)w/c inc.let.
Harshman, USGS, Denver w/c inc.let.
H. S. Stafford, AEC, Denver w/c inc.let.
4304 file

COPY COPY

July 3, 1956

Re: Application DMEA-4304 (uranium)

Mr. Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV
Box 431
Joplin, Missouri
Dear Sir,

In reply to your letter of June 27, I am sending you all the additional evidence I have. Tests I had run on samples, through Kerr McGee Oil Co., one of which I do not have a copy, but it is on record at The Colorado School Of Mines.

You will notice that the name on these analyses was misspelled "Sanders", so I am sending the explaining letter to you. This is also probably the reason why there was not enough found on record at The AEC in Washington. I am marking these papers to be returned to me, along with the others I sent with my application, when you are through with them.

We do not have any splits or cores from the previous drilling, but we do have twenty pounds of low grade ore from drill cuttings.

The $2.00 per foot was for drilling only. I do not plan to hire any technical help, but plan to keep records of the formation, and catch all cuttings at productive depth, and send them to government agencies for testing.

I am enclosing a map of the work that has been done, and the work which I propose to do.

I will advise you as soon as I have any information from The AEC representative in Denver, as to the field team date.

Yours sincerely,

/s/ Louis A. Sanford
/t/ Louis A. Sanford

COPY

COPY

Kerr-McGee Oil Industries, Inc.
Kerr-McGee Building
Oklahoma City 2, Oklahoma

RECEIVED
JUL 11 1956

Dec. 20, 1955.

Mr. Lewis A. Sanders,
Pawnee, Oklahoma,

Dear Mr. Sanders:-

Will you please send me another sample. I have just gotten assays back from samples of another prospect which I had sent at the same time I sent yours, to Brown Laboratory in Grand Junction, Colorado. I think the trouble may have been here in our mail room. Since our merger with Deep Rock there has been a lot of changes and confusion. Brown never had lost a sample in his Lab.

I have a couple more of your samples here but they are pretty low grade so send me another pretty hot one. Also one of your good samples I sent to the Colorado School of Mines Research Lab to get a thorium determination. I have not heard from the latter, but if we get a full analysis from them it may expedite things a little more than to send another sample to Brown.

I have the probe from Wyoming but it needs a little work, the batteries are down and I have to lengthen the wire. We only need 150' feet in Wyoming. I will run up as soon as I get it fixed.

Very truly yours,

/s/ D. J. Wolff

COPY

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RECEIVED
JUL 11 1956

Kerr-McGee Oil Industries, Inc.
Kerr-McGee Building
Oklahoma City 2, Oklahoma
Jan. 12, 1955.

Mr. Louis A. Sanford,
Pawnee, Oklahoma,

Dear Mr. Sanford,

This morning when I looked at the copy of the letter which I had just written to you I noticed that my secretary had addressed you as Sanders. I am certainly sorry for the mistake. I had inclosed a copy of the assays in my letter. I am sure that you will get the letter all right. I hope to see you tomorrow. The high grade sample showed up very well, 0.79 % to be exact. I am coming up to discuss the next thing to be done.

Very truly yours,

DJW/lb

/s/ D. J. Wolff

COPY

RECEIVED
COPY
JUL 11 1956

The Brown Laboratory
2263 Broadway
Grand Junction, Colorado

Analytical Department

Phone 1543-W

CERTIFICATE OF ANALYSIS

TO:

D. J. Wolff
Kerr-McGee Oil Industries, Inc.
Kerr-Mc-Gee Bldg.
Oklahoma City 2, Oklahoma

Date: 1-10-56
Order No.: 5690-S
Material: Ore Samples - 2
Received: 1-7-56
For: Analysis

| Lab. No. | Your No. | Description | $\%U_3O_8$ | $\%V_2O_5$ | $\%CaCO_3$ |
|---|---|---|---|---|---|
| 5690-1 | Sanders - 1 | | Trace | | |
| 5690-2 | Sanders - 2 | | 0.79 | | |

/s/ H. D. Brown, Analyst.

COPY

COPY

RECEIVED
JUL 11 1956

United States
Department of the Interior
Bureau of Mines
P.O. Box 136
Rolla, Missouri

August 15, 1955

Mr. Louis A. Sanford
R. R. 1
Pawnee, Oklahoma

My dear Mr. Sanford:

The Federal Bureau of Mines is pleased to give you the results of the mineralogical examination and radioactivity test on your sample of water-well cuttings of August 3.

The sample consisted of sand size grains of quartz, dolomite, limestone, chert, and a small amount of pyrite. Also present were iron oxide-stained grains of calcium, barium, and strontium sulfate. The radioactivity of the sample was associated with these grains. Such precipitated material is sometimes found associated with well fluids.

A radiometric analysis disclosed that the radioactivity content of the sample was approximately 0.200 percent equivalent uranium.

By "percent equivalent uranium" is meant that the radioactivity of the sample, which may be due to various elements such as uranium, thorium, potassium, etc. and their disintegrating products, is that which would result from a certain percentage of uranium in pitchblende as measured by Geiger counter equipment that has been calibrated with standard uranium samples.

Qualitative tests for uranium were inconclusive.

You might be interested to know that the U. S. Geological Survey has made a study of the highly radioactive precipitate derived from oil-well fluids from many oil and gas fields in southeastern Kansas. According to the Geological Survey, radium determinations have shown that radium is the element that causes most of the radioactivity.

The results of this study are given in U. S. Geological Survey Bulletin 988-E, Radioactivity in Some Oil Fields of Southeastern Kansas, by G. B. Gott and J. W. Hill. The Bulletin can be purchased for $1.00 from the Superintendent of Documents, U. S. Government

copy copy

Printing Office, Washington 25, D. C., or perhaps may be available for reference in your nearest college or technical library.

Since the U. S. Atomic Energy Commission has expressed interest in cataloging samples containing as little as 0.01 percent equivalent uranium, copies of your letter and this reply will be sent to the Commission in Washington, D. C.

We welcome this opportunity to be of service to you.

Sincerely yours,

/s/ J. A. Rowland
/t/ J. A. Rowland, Acting for
R. G. Knickerbocker, Chief
Division of Mineral Technology
Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~XXXXXXXXXXXXXXXXXXXX~~
Box 431
Joplin, Missouri

RECEIVED
JUL 11 1956

July 9, 1956

Mr. Louis A. Sanford
Route 1
Pawnee, Oklahoma

Re: DMEA-4304 (uranium)
W/2. NW/4 Sec. 20, T. 23N., R.5E.
Pawnee County, Oklahoma

Dear Mr. Sanford:

Receipt of your letter of July 3 with some additional data on your uranium prospect hereby is acknowledged. Copies were made and the originals of the letters and uranium analyses are returned herewith as you requested.

Mr. Howard Stafford, U. S. Atomic Energy Commission, Denver Exploration Branch, notified me this morning that he will examine your prospect next Monday, July 16. Therefore, since I will be en-route then to make DMEA Field Team examinations in southwestern Texas, I agreed to join him in Pawnee about 10 A.M. that morning, and accompany him to your property.

Expecting to meet you then at the property, I am,

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer

encl.
cc: DMEA Op.Com.(2)w/c inc.let.
Harshman, USGS, Denver w/c inc.let.
H. S. Stafford, AEC, Denver w/c inc.let.
4304 file

COPY COPY

July 3, 1956

Re: Application DMEA-4304 (uranium)

RECEIVED
JUL 12 1956

Mr. Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV
Box 431
Joplin, Missouri
Dear Sir,

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You will notice that the name on these analyses was misspelled "Sanders", so I am sending the explaining letter to you. This is also probably the reason why there was not enough found on record at The AEC in Washington. I am marking these papers to be returned to me, along with the others I sent with my application, when you are through with them.

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Yours sincerely,

/s/ Louis A. Sanford
/t/ Louis A. Sanford

COPY COPY

Kerr-McGee Oil Industries, Inc.
Kerr-McGee Building
Oklahoma City 2, Oklahoma

Dec. 20, 1955.

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/s/ D. J. Wolff

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DJW/lb

/s/ D. J. Wolff

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JUL 11 1956

The Brown Laboratory
2263 Broadway
Grand Junction, Colorado

Analytical Department

Phone 1543-W

## CERTIFICATE OF ANALYSIS

TO:

Date: 1-10-56
Order No.: 5690-S

D. J. Wolff
Kerr-McGee Oil Industries, Inc.
Kerr-Mc-Gee Bldg.
Oklahoma City 2, Oklahoma

Material: Ore Samples - 2
Received: 1-7-56
For: Analysis

| Lab. No. | Your No. | Description | $\%U_3O_8$ | $\%V_2O_5$ | $\%CaCO_3$ |
|---|---|---|---|---|---|
| 5690-1 | Sanders - 1 | | Trace | | |
| 5690-2 | Sanders - 2 | | 0.79 | | |

/s/ H. D. Brown, Analyst.

COPY

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United States
Department of the Interior
Bureau of Mines
P.O. Box 136
Rolla, Missouri

RECEIVED
JUL 11 1956

August 15, 1955

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R. R. 1
Pawnee, Oklahoma

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JUL 11 1956

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/s/ J. A. Rowland
/t/ J. A. Rowland, Acting for
R. G. Knickerbocker, Chief
Division of Mineral Technology
Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Box 431
Joplin, Missouri

RECEIVED
JUL 2 - 1956

June 27, 1956

Mr. E. N. Harshman
U. S. Geological Survey - DMEA
Denver Federal Center
Denver 2, Colorado

Re: DMEA-4304 (uranium)
Louis A. Sanford
Pawnee, Oklahoma

Dear Harsh:

Thanks for your letter of June 22, on my desk when I returned from Eastern Missouri this morning.

With reference to it and the above-cited application, I believe you will find the attached copy of my letter to Mr. Sanford self-explanatory.

I expect to hear from John Faick (USGS, Tuscon) shortly regarding his June 11 inspection of the Contrabando Project Idm-E893 in Texas, and regarding my suggestion that he and I jointly make the next Field Team inspection there after mid-July (see attached memo of phone call from Mr. Whittiker this morning).

If I do arrange to drive through Oklahoma on the way to or from Texas about July 16 or 23, and Pete Beroni is to be at the Sanford property about then, I will change my arrangements some way accordingly and make the Sanford examination with him. I doubt, however, that it will justify either him or me going there; certainly not one of your men too.

I will appreciate any such arrangements you can make with Pete, if he believes my trip would be justifiable. Otherwise, I believe I should recommend a denial when the A.E.C. information thereon is made available through you.

If Pete and I do examine the Sanford property I will make a sketch map, write a report, and send them for your addition of the geologic report you might sponge off Pete. Of course, if it does prove to have real potentialities, then a joint Field Team examination may be preferable.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/enn
cc: DMEA Op. Com. (2)
Faick, USGS, Tuscon
4304 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 2 - 1956

Box 431
Joplin, Missouri

June 27, 1956

Mr. Louis A. Sanford
Route 1
Pawnee, Oklahoma

Re: Application DMEA-4304 (uranium)
W/2 NW/4 Sec. 20, T. 23N., R. 5E.
Pawnee County, Oklahoma

Dear Mr. Sanford:

Your application under the cited docket number, has been referred to me for investigation, recommendations and a Field Team examination if and when justifiable, following reviews in the DMEA Washington Office. It also reviewed all pertinent information on file there with the U. S. Atomic Energy Commission which was insufficient to justify a Field Team examination of your uranium prospect.

The U. S. Geological Survey Member of this Field Team in Denver, however, reports that some samples you sent there are being checked by A.E.C., and should their uranium content justify, an A. E. C. representative might visit your property during July. In that case I would like to be notified in time to make arrangements to meet there with him and you, provided you can assure me that sufficient evidence will be attainable there to justify the trip.

Have you retained splits of cores which can be examined from all the holes you drilled? If you have prepared geologic logs thereon, copies should be sent for attachment to your application. Was any information obtained to indicate the dip of the "vein" you mentioned?

Referring to the answer to question 6 in the DMEA booklet I sent you, would the mortgagee on your property furnish the necessary Subordination Agreement to the Government if and when a DMEA project contract is let?

Do you intend the estimated contract drilling cost of $2.00 per foot to include the necessary engineering supervision, geologic logging, sample analyses, mapping, and preparation of the other reports required by the Government under such a DMEA project contract as you seek?

Please furnish copies of any and all quantitative chemical uranium analyses made by the several Agencies you mentioned.

Also, since no copy of the maps and sketches referred to under 4(c) and 5(b), were furnished with the Field Team's copy of your application, please send me a copy of those maps showing the locations and results of the previous drilling, and your proposed drilling sites; a geologic cross section through the "vein", showing the stratigraphy revealed by the previous drilling also would be helpful.

I will appreciate receiving as soon as possible all the available additional information suggested above for support of your exploration proposal, and advice from you if and when the A.E.C. representative sets a firm date with you for visiting the property.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.(2)
Harshman,USGS, Denver
4304 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 2 - 1956

Box 431
Joplin, Missouri

June 27, 1956

Mr. Louis A. Sanford
Route 1
Pawnee, Oklahoma

Re: Application DMEA-4304 (uranium)
W/2 NW/4 Sec. 20, T. 23N., R. 5E.
Pawnee County, Oklahoma

Dear Mr. Sanford:

Your application under the cited docket number, has been referred to me for investigation, recommendations and a Field Team examination if and when justifiable, following reviews in the DMEA Washington Office. It also reviewed all pertinent information on file there with the U. S. Atomic Energy Commission which was insufficient to justify a Field Team examination of your uranium prospect.

The U. S. Geological Survey Member of this Field Team in Denver, however, reports that some samples you sent there are being checked by A.E.C., and should their uranium content justify, an A. E. C. representative might visit your property during July. In that case I would like to be notified in time to make arrangements to meet there with him and you, provided you can assure me that sufficient evidence will be attainable there to justify the trip.

Have you retained splits of cores which can be examined from all the holes you drilled? If you have prepared geologic logs thereon, copies should be sent for attachment to your application. Was any information obtained to indicate the dip of the "vein" you mentioned?

Referring to the answer to question 6 in the DMEA booklet I sent you, would the mortgagee on your property furnish the necessary Subordination Agreement to the Government if and when a DMEA project contract is let?

Do you intend the estimated contract drilling cost of $2.00 per foot to include the necessary engineering supervision, geologic logging, sample analyses, mapping, and preparation of the other reports required by the Government under such a DMEA project contract as you seek?

Please furnish copies of any and all quantitative chemical uranium analyses made by the several Agencies you mentioned.

Also, since no copy of the maps and sketches referred to under 4(c) and 5(b), were furnished with the Field Team's copy of your application, please send me a copy of those maps showing the locations and results of the previous drilling, and your proposed drilling sites; a geologic cross section through the "vein", showing the stratigraphy revealed by the previous drilling also would be helpful.

I will appreciate receiving as soon as possible all the available additional information suggested above for support of your exploration proposal, and advice from you if and when the A.E.C. representative sets a firm date with you for visiting the property.

Sincerely yours,

CCK/emm

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.(2)
Harshman, USGS, Denver
4304 file

6-2656

RECEIVED
JUN 26 1956

June 19, 1956

Air Mail

Mr. E. H. Harshman
U. S. Geological Survey
Denver Federal Center, Bldg. 25
Denver, Colorado

Dear Harsh:

The enclosed field referral on the Louis A. Sanford property, Pawnee County, Oklahoma, is being forwarded to you along with our copy of the application.

I suggest that you take no action on this referral until you are advised by Mr. Knox if and when a field examination is to be made, although it would probably be wise for you to write Mr. Knox informing him of the man who would be available for an Oklahoma trip and of the time that he might be able to go there. With such information in hand Mr. Knox could then better schedule the examination if he decides that one is needed.

Sincerely,

Thor H. Kiilsgaard
Staff Assistant for DMEA

cc: Clinton G. Knox
Director's reading, 4212
Branch reading, 4212

THKiilsgaard:iml
G-6/19/56

6/26/56

Mr. ~~Ellis.~~ Murphy

700 Docket

The attached correspondence relates to the handling of Docket 4304, Louis A. Sanford.

RECEIVED
JUN 26 1956

June 19, 1956

Air Mail

Mr. E. H. Barnhart
U. S. Geological Survey
Denver Federal Center, Bldg. 25
Denver, Colorado

Dear Earth:

The enclosed field referral on the Louis A. Sanford property, Pawnee County, Oklahoma, is being forwarded to you along with our copy of the application.

I suggest that you take no action on this referral until you are advised by Mr. Knox if and when a field examination is to be made, although it would probably be wise for you to write Mr. Knox informing him of the man who would be available for an Oklahoma trip and of the time that he might be able to go there. With such information in hand Mr. Knox could then better schedule the examination if he decides that one is needed.

Sincerely,

Thor H. Kiilsgaard
Staff Assistant for DMEA

cc: Clinton G. Knox
Director's reading, 4212
Branch reading, 4212

THKiilsgaard:iml
G-6/19/56

IN REPLY REFER TO

RECEIVED

JUN 26 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

June 22, 1956

Mr. Clinton G. Knox, Executive Officer
DMEA Field Team, Region IV
Bureau of Mines
P. O. Box 431
Joplin, Missouri

Re: DMEA Docket 4304 (Uranium)
Louis A. Stanford
W½ of NW¼ of sec. 20, T.23 N., R.3 E.
Pawnee County, Oklahoma

Dear Clint:

I have just received the Survey copy of the Louis A. Stanford application for exploration assistance on his Pawnee County, Oklahoma, property (DMEA Docket 4304).

I discussed this application with R. P. Ferrari and E. S. Stafford of the Denver Exploration Branch of the AEC and was told that they plan to look over the property some time early in July. They do not think that it is worthy of DMEA assistance but have little or no factual evidence upon which to base a denial.

It appears that the radioactivity may not be due to U-238, but they are now checking some samples sent to them by the applicant.

At the moment I have only one field man in this office, but on July 1 I will get two more. Needless to say, I could not possibly get to this application before the second week in July, but after that date could send a man to make the examination with you.

If time schedules permit, it might be advisable to examine the property at the time the AEC looks at it, but it may prove difficult to get the three groups coordinated.

If you will let me know when you will be in a position to take a look at the property (after July 8, 1956), I will attempt to get together with the AEC and arrange a firm date for examination. If this falls through, I will send a man from here at your convenience.

The above is all based on the assumption that you deem an examination to be necessary; this may not be the case.

If you prefer to hold up the examination until after the AEC looks at the property and we get the facts from them, let us know; we might save time and energy should the property prove to be a complete dud.

Sincerely yours,

E. E. Harelman
Hanford Field Team, Region III

Copy to: F. E. Hilegeest

EEHarelman:arh

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Uranium Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

June 28, 1956

Mr. Clinton C. Ross, Executive Officer
DMEA Field Team, Region IV
Bureau of Mines
P. O. Box 431
Joplin, Missouri

Re: DMEA Docket 434 (Uranium)
Louis A. Sanford
¼ of ¼ of sec. 20, T.23 N., R.[illegible]
Pawnee County, Oklahoma

Dear Clint:

I have just received the Survey copy of the Louis A. Sanford application for exploration assistance on his Pawnee County, Oklahoma, property (DMEA Docket 434).

I discussed this application with E. P. Barnes and E. S. Stafford of the Denver Exploration Branch of the AEC and was told that they plan to look over the property some time early in July. They do not think that it is worthy of DMEA assistance but have little or no factual evidence upon which to base a denial.

It appears that the radioactivity may not be due to U-238, but they are now checking some samples sent to them by the applicant.

At the moment I have only one field man in this office, but on July 1 I will get two more. Needless to say, I could not possibly get to this application before the second week in July, but after that date could send a man to make the examination with you.

If time schedules permit, it might be advisable to examine the property at the time the AEC looks at it, but it may prove difficult to get the three groups coordinated.

If you will let me know when you will be in a position to take a look at the property (after July 8, 1956), I will attempt to get together with the AEC and arrange a firm date for examination. If this fails through, I will send a man from here at your convenience.

The above is all based on the assumption that you deem an examination to be necessary; this may not be the case.

If you prefer to hold up the examination until after the AEC looks at the property and we get the facts from them, let me know; we might save time and energy should the property prove to be a complete dud.

Sincerely yours,

E. N. Harshman
Member, Field Team, Region III

Copy to: T. H. Kiilsgaard

ENHarshman:arh

700

FILE COPY
Surname:
Murphy
Kilgore
Keelon
Kalgaard
Mayfield
Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

JUN 1956

Mr. Louis A. Sanford
Route 1
Pawnee, Oklahoma

Re: Docket No. DMEA-4304 (Uranium)
W½ of NW¼ of sec. 20, T. 23 N., R. 5 E.
Pawnee County, Oklahoma

Dear Mr. Sanford:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

Mr. Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV
Bureau of Mines
P. O. Box 431
Joplin, Missouri

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

G. O. Mittendorf

Administrator

FMMurphy/izm 6-15-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
DMEA Field Team, Reg. IV (2)

R.G.K.

700

FILE CC

Surnames

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

JUN 18 1956

Mr. Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV
Bureau of Mines
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA-4304 (Uranium)
Louis A. Sanford
W½ of NW¼ of sec. 20, T. 23 N., R. 5 E.
Pawnee County, Oklahoma

Dear Mr. Knox:

The captioned application is referred to Region IV Field Team for investigation, a field examination if deemed advisable, and recommendation.

Enclosed are copies of memoranda, dated May 25 and 28, 1956, by N. E. Nelson, USGS, and J. E. Crawford, USBM, respectively, relating to the application.

At the request of the Rare and Miscellaneous Metals Division, DMEA, Mr. J. O. Hosted, AEC, Division of Raw Materials, Washington, on June 1 sent an airmail memorandum to Mr. D. L. Everhart, Acting Chief, AEC, Denver Exploration Branch, DRM, Denver, as follows:

"Mr. Sanford has applied for a loan to explore for uranium on a tract of land located on State Highway No. 18, nine miles north of Pawnee, Oklahoma. (W½ NW¼ sec. 20, T. 23 N., R. 5 E.)

"The applicant stated that he drilled seven holes and found a deposit of uraninite at a depth of 217 feet and that reports are on file with AEC.

"I should appreciate your sending me any information you may have on the area."

On June 12, Mr. Hosted brought in a small file of general information received in answer to his memorandum. There was little information, if any, that would add to the application. The AEC wrote the Applicant for samples and indicated that possibly some of their field men would be in the area in July. The file was returned to Mr. Hosted at his request.

RGH

We have reviewed Docket No. DMEA-2924 (Uranium), Contract No. Idm-E648, Lee D. Uto and Willard I. Knox, Pawnee County, Oklahoma. The land subordinated in this contract is situated in sec. 8, T. 22 N., R. 4 E., which is relatively near the subject land.

According to the Interim Report, January 12, 1955, by E. P. Beroni on DMEA-2924, page 2, mineralogy, "...samples contained from .08 percent to 16.33 percent chemical uranium on very select carbonized woody fragments." However, channel samples, taken from the contract bulldozer cuts through the "Redbeds" of Permian age, ranged from 0.007 to a high of 0.042 percent $U_3O_8$. One sample of a carbonized log assayed 0.12 percent $U_3O_8$. It is quite possible that the high values quoted by the subject Applicant were on selected material, rather than complete drill hole samples representing the footages that he states were drilled.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (WB)

Enclosures

APPROVED:

P. F. Yopes (WB)
Member, Bureau of Mines

Thor H. Kiilsgaard (WB)
Member, Geological Survey

FMMurphy/izm/ai 6-15-56 6/18/56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Comm.
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm 5224
JOHosted, Rm. 3210

5/29/56 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
MAY 28 1956

May 28, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Application for Assistance, DMEA Docket 4304,
Louis A. Sanford, Pawnee County, Oklahoma

I have reviewed the attached application for assistance, DMEA Docket 4304, Louis A. Sanford, Pawnee County, Oklahoma, dated May 19 and received in this office May 23, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The applicant requests DMEA assistance to explore what he believes to be a 22-foot vein of uraninite by drilling four holes each to a depth of 240 feet at a unit cost of $2 per foot for drilling. The total estimated cost of the project is $1,920.

The field team indicates that the AEC may have information in their files that would support an immediate denial of this application.

No - according to what Hosted could unearth 6-12-56 JOR

It is suggested that the field team contact the AEC, Denver Exploration Branch, to determine whether or not the subject claims lie in an area which is unfavorable for uranium deposition. The information gathered by the field team could be used in support of either a request for additional data from the applicant or outright denial of the request for exploration assistance.

John E. Crawford
John E. Crawford

Attachment

5/28/56 gla

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

May 25, 1956

Re: DMEA 4304
Louis A. Sanford
Sanford Eighty
Pawnee County, Oklahoma
$1,920.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in drilling 4 offset holes around a hole drilled by him that is said to have cut uranium-bearing material at a depth of 217 to 239 feet. Another hole is said to have given a strong reaction when logged and a third a weak reaction. Four holes showed no radioactivity.

Just why the holes were drilled is not told us. The reliability of the logging may bear investigation.

Mr. Knox's letter says the Denver A.E.C. office may have information concerning the drilling. A request for that data would seem to be in order before arranging for an examination or denying the application.

6-12-56 r/o: DO not have

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

May 25, 1956

Re: DMEA 4304
Lewis A. Sanford
Sanford Eighty
Pawnee County, Oklahoma
$1,900.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

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Mr. Knox's letter says the Denver A.E.C. office may have information concerning the drilling. A request for that data would seem to be in order before arranging for an examination or denying the application.

N. E. Nelson

N. E. Nelson

NENelson:jeh
5/25/56
Copy to: Director's reading 4212
Branch reading 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Koeted, 3210 GGA

8-6-56

C O P Y MH

D. L. Everhart, Acting Chief
Denver Exploration Branch, DRM, Colorado

June 1, 1956

RECEIVED
JUN - 5 1956

J. O. Hosted
Division of Raw Materials, Washington

DMEA APPLICATION NO. 4304--LOUIS A SANFORD, PAWNEE, OKLAHOMA

SYMBOL: RM:JOH

Mr. Sanford has applied for a loan to explore for uranium on a tract of land located on State Highway No. 18, nine miles north of Pawnee (W½NW¼ Sec. 20, T 23 N, R 5 E).

The applicant stated that he drilled seven holes and found a deposit of uraninite at a depth of 217 feet and that reports are on file with the AEC.

I should appreciate your sending me any information you may have on the area.

June 12-1956

Mr. Hosted came in the office today to present the results of the above inquiry. There was little information if any, that would add to the application. The AEC wrote the Applicant for samples and indicated that possibly some of their field men would be in the area during July. The file was returned to Mr. Hosted at his request.

DRM

HOSTED:dcd STOCKING McCARVILL

6/1/56

RECEIVED
MAY 23 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

May 21, 1956

DMEA-4304

Memorandum

To: Chief, DMEA Operations Control and Statistics Division, Department of the Interior, Washington 25, D. C.

From: DMEA Field Team, Region IV

Subject: DMEA Application for a uranium exploration project on W/2 of NW¼ Sec. 20, T. 23 N., R. 5 E., Pawnee County, Oklahoma, by Louis A. Sanford, Route 1, Pawnee, Oklahoma

Forwarded herewith are the original and two copies of the subject application (with only single copies of sketch map and radiometric drill hole log) received from this Applicant today; the fourth copy of the application is being retained in the Field Team's files.

During discussions on various uranium prospects of this region with Pete Beroni and E. L. Newcomb, both of the Denver Office, A. E. C., when they visited me here last Tuesday morning, I got the distinct impression that reports and data now available in A. E. C. files adequately would support an immediate denial of this particular application. Therefore, I hesitate to ask this Applicant to revise and supplement this application properly.

If my impression proves to be erroneous and A. E. C. does have information that shows this prospect to have sufficient merit to interest DMEA, then I will be glad to advise this Applicant further on preparing an adequate application (copies of my May 11 letter to him were furnished DMEA).

copy of May 11 letter in docket

Clinton C. Knox
Clinton C. Knox

CCK/enn

encl. 3

cc: DMEA Op.Com.(3)
Harshman, USGS, Denver
Pend.Appl. file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
Box 431
Joplin, Missouri

RECEIVED
MAY 23 1956

May 21, 1956

Memorandum

To: Chief, DMEA Operations Control and Statistics Division, Department of the Interior, Washington 25, D. C.

From: DMEA Field Team, Region IV

Subject: DMEA Application for a uranium exploration project on W/2 of NW¼ Sec. 20, T. 23 N., R. 5 E., Pawnee County, Oklahoma, by Louis A. Sanford, Route 1, Pawnee, Oklahoma

Forwarded herewith are the original and two copies of the subject application (with only single copies of sketch map and radiometric drill hole log) received from this Applicant today; the fourth copy of the application is being retained in the Field Team's files.

During discussions on various uranium prospects of this region with Pete Beroni and E. L. Newcomb, both of the Denver Office, A. E. C., when they visited me here last Tuesday morning, I got the distinct impression that reports and data now available in A. E. C. files adequately would support an immediate denial of this particular application. Therefore, I hesitate to ask this Applicant to revise and supplement this application properly.

If my impression proves to be erroneous and A. E. C. does have information that shows this prospect to have sufficient merit to interest DMEA, then I will be glad to advise this Applicant further on preparing an adequate application (copies of my May 11 letter to him were furnished DMEA).

CCK/enn

Clinton C. Knox

encl. 3

cc: DMEA Op.Com.(3)
Harshman, USGS, Denver
Pend.Appl. file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

4304

May 11, 1956

Mr. Louis A. Sanford
Route 1
Pawnee, Oklahoma

Dear Mr. Sanford:

Your letter of April 30 was here awaiting my return today from field work in southeastern Texas during the past two weeks. Belatedly responding to your request, a copy of DMEA Order-1, a booklet further explaining the Defense Minerals Exploration Program, and a set of the Application Forms MF-103 are enclosed herewith.

After reading the enclosed information and instructions, should you decide to file an application for a DMEA exploration project contract on your uranium prospect at Pawnee, Oklahoma, please direct special attention to the instructions in paragraphs 2, 4, 5, and 6 of the Application Form. I also advise that the maps and sketches referred to under 4(c) and 5(b) of the MF-103 Form, likewise should be submitted in quadruplicate attached with each of the required four copies of the application and all other necessary supplemental sheets and documents.

If you hold the mineral rights by virtue of a valid lease, please note the answers to questions 5 and 59 in the enclosed booklet. Ordinarily in such cases a Consent to Lien (see enclosed sample of Form MF-203) is required from the Landowner if and when a DMEA project contract is offered.

I further suggest that it is mutually advantageous if applications present firm evidence of a geologic probability for making a worthwhile ore discovery, operating experience and background with respect to the Applicant's ability to properly conduct the mining exploration program it proposes, and all details of the Applicant's plans and cost estimates for that program, essential to writing the specification for the desired DMEA project contract.

Please do not hesitate to write for any further information, suggestions, or assistance that you might need for preparing your application.

Sincerely yours,

RECEIVED
MAY 14 1956

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/enn
encl. 8
cc: DMEA Op.Com.(2) - S file
Reynolds,USBM,Rolla - U30gfile
Kline,USBM,Batesville - Knox

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
MAY 23 1956

RECEIVED
MINERALS TECHNOLOGY DIVISION
MAY 21 1956
BUREAU OF MINES
JOPLIN, MO.

Form Approved.
Budget Bureau No. 42-R1035.2.

# APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

*Not to be filled in by applicant.*

Docket No. DMEA-4304
Metal or Mineral URANIUM
Date Received 5/23/56
Estimated Cost $1,920.00
Participation (Government %)

## INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Louis A. Sanford, R.R.#1, Pawnee, Oklahoma

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract W½ of NW¼ of Sec. 20, TWP 23,N Range 5E, Pawnee County, Pawnee, Oklahoma

(*b*) State any mine name by which the property is known. None.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owner.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. None.

(*e*) If you own the land, describe any liens or encumbrances on it First Mortgage in the amount of $2500.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 10 days and be completed within 6 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[X] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

## CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated May 19, 1956

Louis A. Lanford
(Applicant)

By Stella M. Lanford

**Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.**

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

May 23, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region IV.

DMEA -4304 Louis A. Sanford

Robert E. Adams
Chief, Operation's Control
and Statistics Division

May 23, 1956

Mr. Louis A. Sanford
R.R. #1
Pawnee, Oklahoma

**Subject:** DMEA 4304
**Re:** Exploration Assistance

Dear Mr. Sanford

**The receipt of your application dated** May 19, 1956 **for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.**

**Your application has been assigned Docket Number** DMEA 4304 **and referred to the** Rare & Misc. Metals Division.

**Kindly identify all future correspondence relating to your application by this docket number.**

**Sincerely yours,**

**Robert E. Adams, Chief**
**Operations Control and**
**Statistics Division**

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DIVISION
MAY 21 1956
BUREAU OF MINES
JOPLIN, MO.

Application of Louis A. Sanford R.R.#1, Pawnee, Oklahoma.

Instruction 4.

(a) I have drilled seven drillholes to a depth of 240 ft. These holes are open for exploration, and are easilly accessible. These holes are owned entirely by me.
(b) None.
(c) This property is on a limestone structural high.

I found a deposit of uranium ore, 22 ft. in depth, 217 ft. to 239 ft. below the surface. This is a vein type deposit of uraninite ore, and is grayish black in color. It contains seven feet of 5% uranium ore, twelve feet of 1% ore, and three feet of low grade ore, based on a gamma ray picture of the drillhole, which I am enclosing.

One other drillhole has a strong showing of uranium (by probe), one has a weak showing, and the others had no showing.

My reasons for wishing to explore further are, to determine the size of the vein, and to prove it to the extent that I can have it mined.

(d) This property is located on state Highway No. 18, nine miles North of Pawnee, Okla., which is the nearest shipping point, residential area, and supply area.
(e) All items are in plentifull supply, and are easily available.

Instruction 5.

(a) Uranium.
(b) I propose to drill four holes, circling the ore-bearing drillhole to determine the directional trend of the vein, and then follow in that direction. This may require an additional contract.
(d) My experience opperating such a project consists solely of the work done here on my place. I have completed seven drillholes, and made a discovery of uranium ore, proven to be $U^3O^8$ by several agencies, whose reports are filed with The Atomic Energy Commission.

I plan to supervise this project.

Instruction 6.

(a) Four drillholes 240' @ $2.00 per ft.___$1920.
(b) None.
(c) None.
(d) Precission Scintillator, price $300.__Furnished by opperator.
(e) None.
(f) None.
(g) None.
(h) None.

N. W.

N

N. E.

Map showing
work done and
probable directional
trend of vein.

dry

N. E.

Strong show 7 feet of 5% ore 12 feet 1% ore 3 feet low grade
good Ore. Total 22 ft. thick

W

E

weak

dry

dry

9 feet glide

S. W.

Width estimated
by previous drilling

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MAY 21 1956

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JOPLIN, MO.

Holes marked by a
x are one hundred
feet from discovery hole.

dry.

S.

Map by.
Louis A. Sanford.

S.W.

S. E.

Please return to
Louis A. Sanford.
Pawnee Okla.
H-1

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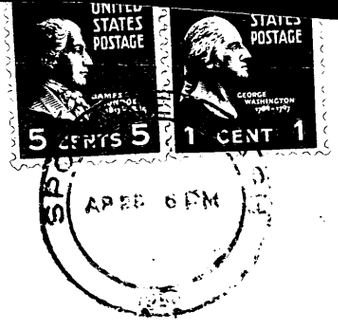
MAY 23 1956

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1201 N. DIVISION STREET
SPOKANE 2, WASHINGTON



Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

5/23/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

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MAY 23 1956

May 21, 1956

Memorandum

To: Chief, DMEA Operations Control and Statistics Division, Department of the Interior, Washington 25, D. C.

From: DMEA Field Team, Region IV

Subject: DMEA Application for a uranium exploration project on W/2 of NW¼ Sec. 20, T. 23 N., R. 5 E., Pawnee County, Oklahoma, by Louis A. Sanford, Route 1, Pawnee, Oklahoma

Forwarded herewith are the original and two copies of the subject application (with only single copies of sketch map and radiometric drill hole log) received from this Applicant today; the fourth copy of the application is being retained in the Field Team's files.

During discussions on various uranium prospects of this region with Pete Beroni and E. L. Newcomb, both of the Denver Office, A. E. C., when they visited me here last Tuesday morning, I got the distinct impression that reports and data now available in A. E. C. files adequately would support an immediate denial of this particular application. Therefore, I hesitate to ask this Applicant to revise and supplement this application properly.

If my impression proves to be erroneous and A. E. C. does have information that shows this prospect to have sufficient merit to interest DMEA, then I will be glad to advise this Applicant further on preparing an adequate application (copies of my May 11 letter to him were furnished DMEA).

CCK/enn

Clinton C. Knox

encl. 3

cc: DMEA Op.Com.(3)
Harshman, USGS, Denver
Pend.Appl. file

MF-103
(Revised April 1952)

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DIVISION
MAY 21 1956

Form Approved.
Budget Bureau No. 42-R1035.2.

# UNITED STATES DEPARTMENT OF THE INTERIOR
## DEFENSE MINERALS EXPLORATION ADMINISTRATION

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MAY 23 1956
BUREAU OF MINES
JOPLIN, MO.

## APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

*Not to be filled in by applicant*

Docket No. DMEA-4304
Metal or Mineral URANIUM
Date Received 5/23/56
Estimated Cost $1,920.00
Participation (Government %)

## INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Louis A. Sanford, R.R.#1, Pawnee, Oklahoma

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract W½ of NW¼ of Sec. 20, TWP 23, N Range 5E, Pawnee County, Pawnee, Oklahoma

(*b*) State any mine name by which the property is known. None.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owner.

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. None.

(*e*) If you own the land, describe any liens or encumbrances on it First Mortgage in the amount of $2500.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 10 days and be completed within 6 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

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NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

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[X] Money [ ] Use of equipment owned by you [ ] Other

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Dated May 19, 1956

Louis A. Sanford
(Applicant)

By Stella M. Sanford

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U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

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DIVISION
MAY 21 1956

Application of Louis A. Sanford R.R.#1, Pawnee, Oklahoma.

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BUREAU OF MINES
JOPLIN, MO.

Instruction 4.

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(d) Precission Scintillator, price $300.__Furnished by opperator.
(e) None.
(f) None.
(g) None.
(h) None.

This log was taken by-

Bob Robinson
1316 South Troost
Tulsa, Oklahoma Ph. Webster 90517
&
Ed Hiserodt
3232 East Archer
Tulsa, Oklahoma Ph. Webster 90517

Witnessed by

Louis A. Langford
(signed)

TOP OF WATER

220'

Total oil
19 feet of sand
recovered
7'
Strong Reading

237'

257'

244'

250'
5000 counts

3. time constant

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DIVISION
MAY 21 1956
BUREAU OF MINES
JOPLIN, MO.

THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A. CHART NO. 4310-D
MADE IN U.S.A. THE ESTERLINE-ANGUS CO., INC., INDIANAPOLIS, IND., U.S.A. ES

Please return to
Louis A. Lanford.
Parones Office
R. 1

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