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

December 21, 1955

22d New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Report of Examination, Docket DMEA 3023 (Uranium), Interstate Uranium Corporation, Sky, Lore, Fran, and Peanuts Claims, Gila County, Arizona

Enclosed are the original and three copies of the report pertaining to the subject application.

The field examiners concluded that additional exploratory work would not discover a significant amount of uranium ore. They recommend that the application be denied, and we concur in this recommendation.

F. M. Hardman

E. M. Hardman
Acting Executive Officer, DMEA
Field Team, Region III

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55
(date)

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DEC 23 1955
DMEA
Data Rec'd.
DEC 19 1955
BUREAU OF MINES
Denver, Colorado

Box 4097
Tucson 5, Arizona

December 14, 1955

Memorandum

To : W. M. Traver, Executive Officer, DMEA Field Team, Region III

From : Superintendent, Southwest Experiment Station

Subject : Field Examination Report, Docket DMEA-3023, Interstate Uranium Corp.'s Sky, Zero, Prem, and Peanuts Uranium Claims, Gila County, Ariz.

TRANSMITTED
DEC 21 1955

Enclosed are original and 10 copies of the section on Summary, Conclusions and Recommendations by T. M. Ramale of the Bureau of Mines and Leonid Bryner of the Geological Survey, and the section on Engineering by Ramale for the above report. A separate section on Geology will be submitted by the Geological Survey.

The DMEA examiners believe that additional exploratory work at this deposit would not discover any significant amount of new ore, so recommend that the application for Government exploration assistance be denied. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. M. Traver (10)
J. N. Faick
DMEA-3023
RF

WRStorms:frj

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55
(date)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
DEC 21 1955

DMEA-3923, Interstate Uranium Corporation

Sky, Zero, Fran and Peanuts Uranium Claims

Gila County, Arizona

T. M. Nemalo, Mining Engineer
U. S. Bureau of Mines

Leonid Bryner, Geologist
U. S. Geological Survey

Reviewed by
DMEA OPERATIONS CONTROL
12-30-55
(date)

December 1955

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

T. M. ROMSLO[1] AND LEONID BRAMER[2]

The Sky, Zora, Fran and Peanuts group of claims in Gila County, Ariz. was examined by the Defense Minerals Exploration Administration in connection with an application for Governmental aid by the Interstate Uranium Corp. The application, designated as DMEA 3923, requested aid in exploration for uranium. This work involved diamond drilling and drifting at an estimated cost of $40,000.00.

Uranium was discovered on the property by George K. Angine early in 1954. Since then the property has been made accessible by bulldozer roads and the mineralized zones have been explored by a few small trenches and 7 diamond drill holes. At present, the property is idle. During the period of exploratory work, the property was examined by geologists of the Atomic Energy Commission and the United States Geological Survey, by representatives of the Phelps Dodge Corp., and by Chapman and Wood, Consulting Engineers of Albuquerque, N. Mex.

Observed anomalous radioactivity is confined to an approximately 3-foot thick shaley bed at the base of the Upper Member of the pre-Cambrian Dripping Spring quartzite. At the main workings, a 39-foot-long trench, uranium occurs as torbernite mainly along partings of the shaley bed. Distribution of the

---

1/ Mining Engineer, U. S. Bureau of Mines
2/ Geologist, U. S. Geological Survey

torbernite is erratic. Radioactivity at the same horizon is exposed in another open-cut at about 80 feet west of the main workings. The down-dip extension of these zones has been tested by 7 diamond drill holes with the following results. Weak radiometric zones of 3 of the holes correspond to the radiometric zone at the surface workings. In 2 of the other holes a weak radiometric zone was detected, in one case above the projected horizon and in the other at a lower horizon. The remaining 2 holes showed no zones of anomalous radioactivity.

Samples obtained from the deposit by previous examiners and by the DMEA examining team show that the highest concentrations of uranium are confined to discontinuous zones about 1 foot thick at the shale horizon mentioned above. Not enough is known about the distribution of uranium and about ore controls to estimate indicated and inferred reserves with any reliability. The best material, averaging 0.1 percent U_3O_8, probably represents reserves on the order of tons, or at the most, hundreds of tons.

Denial of the requested aid in exploration of the property is recommended because of the poor possibilities of discovering significant reserves of uranium ore.

RECEIVED
DEC 23 1955

DMA-2013, INTERSTATE URANIUM CORPORATION
KEY, DMA, FRAN AND HEADWIND, URANIUM CLAIMS
GILA COUNTY, ARIZONA

TRANSMITTED
DEC 21 1955

Engineering Report

By T. M. Tomsic
Mining Engineer
U. S. Bureau of Mines

December 1955

12-30-55

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DEC 0 8 1955

DMEA-3023, INTERSTATE URANIUM CORPORATION
SKY, ZEBA, FRAN, AND HANUS URANIUM CLAIMS
GILA COUNTY, ARIZONA

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Recommendations — 5

ILLUSTRATIONS

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1 Location map — 2
2 Claim map — 3
3 Geologic and assay map — (See geologic report)

Plate No.

1 Section of Apache group — (See geologic report)

INTRODUCTION

The Defense Minerals Exploration Administration received an application from the Interstate Uranium Corp. for Governmental aid in exploration for uranium on its group of lode mining claims in Gila County, Ariz. The application was received July 31, 1955. It was docketed as DMA-3083, reviewed by the Operating Committee and referred to the Field Team of Region III for a field examination and report.

The proposed work included 2,000 feet of diamond drilling and 300 feet of drifting at an estimated total project cost of $48,000.00.

The group of claims was examined for the Defense Minerals Exploration Administration by L. Bryner, geologist, U. S. Geological Survey, and T. M. Rennie, mining engineer, U. S. Bureau of Mines. George K. Anglen, representative for the applicant and one of the owners of the property, accompanied Bryner on November 17, 1955, and was present on the following day when the examining team completed its field investigations.

The property had previously been examined by geologists for both the Atomic Energy Commission and the United States Geological Survey. Their findings were made available to the examining team for the Defense Minerals Exploration Administration.

LOCATION AND ACCESSIBILITY

The claims of the proposed explorations are about 14 air-miles south of Globe, Ariz. in secs. 2 and 3, T. 3 S., R. 15 E., Gila County, Ariz. (figure 1). They are accessible from Globe by traveling 3 miles east on U. S. Highway 70, thence 14.8 miles south on graded State Highway 77, and thence 0.9 mile easterly on an access mine road to the main exploratory trench on Sky No. 5 claim.

TOPOGRAPHY, PHYSICAL FEATURES AND CLIMATE

The Zora, Sky, Fran and Peanut claims are at an average altitude of about 4,500 feet on the western slope of the northwesterly trending Mescal Mountains. The area is moderately rugged. Drainage is southwesterly via a branch of El Capitan Canyon.

Vegetation consists mainly of forage grasses and a light growth of shrubs on the hillsides, and scattered groves of oak trees in canyons.

Annual precipitation is about 15 inches. It occurs mainly as heavy summer rain storms, and light rain and snowfalls in the winter.

Summers are hot and winters are mild.

HISTORY AND PRODUCTION

Uranium mineralization on the Zora, Sky, Fran and Peanut claims was discovered by George K. Angius, Globe, Ariz. during the early part of 1954. In April 1954, the claims were recorded and

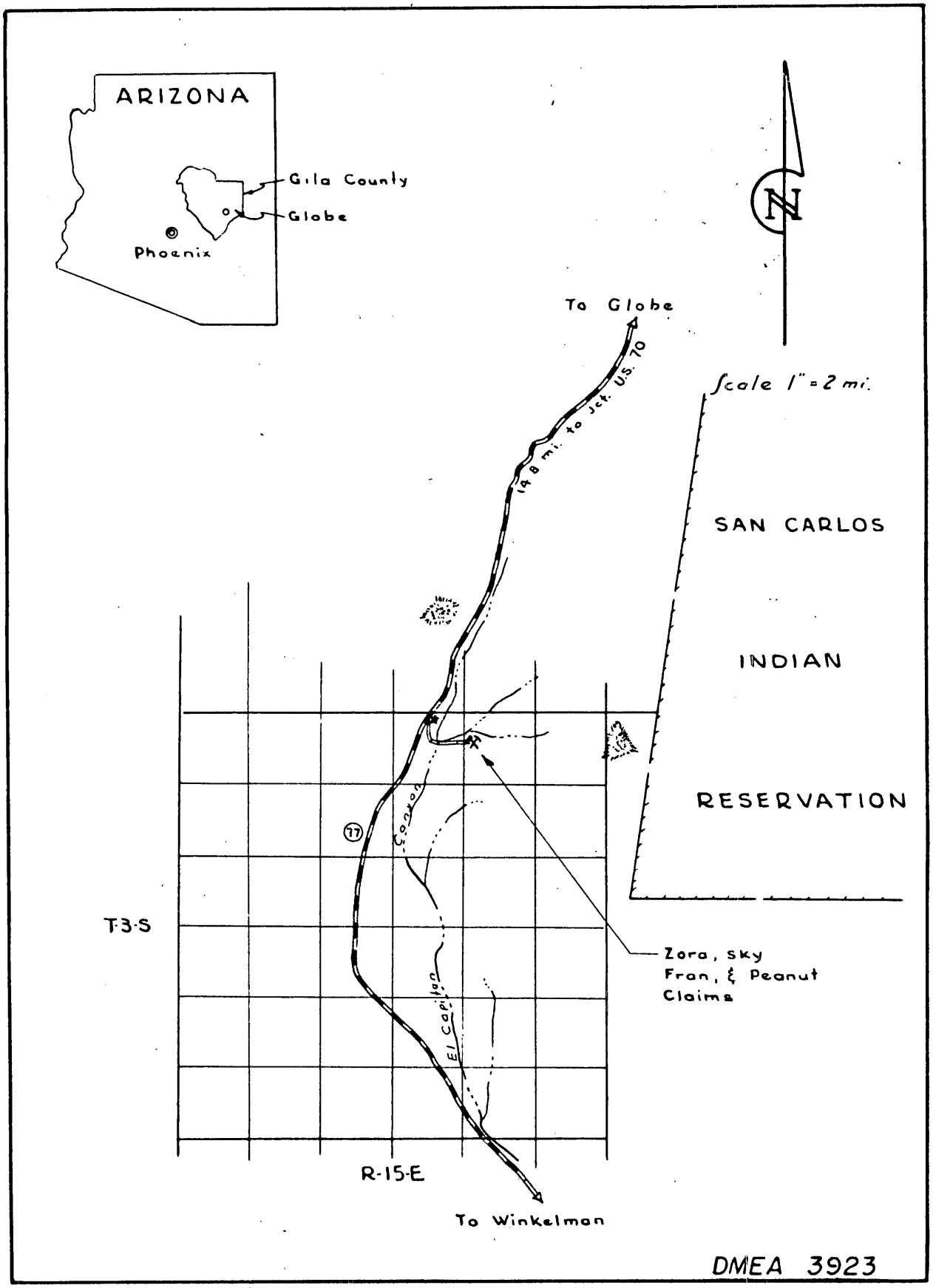

FIG.-1- LOCATION MAP, ZORA, SKY, FRAN, PEANUT CLAIMS

GILA COUNTY, ARIZONA

exploratory work was started and carried out intermittently until April 1955. After the construction of bulldozer roads, a few small trenches were excavated and 7 diamond drill holes were put down.

According to Mr. Angius, a representative of the Phelps Dodge Corp., and Chapman and Wood, Consulting Engineers of Albuquerque, N. Mex., examined and sampled the property during the period of exploratory work.

There has been no production of uranium ores or other minerals.

LOCATION AND OWNERSHIP OF PROPERTY

The property comprises a group of 16 lode mining claims, namely Zero Nos. 1 to 4, Sky Nos. 1 to 5, Fran Nos. 1 to 5, and the Peanuts (figure 2). It is owned by George K. Angius, Miami, Ariz. and D. N. Zanovich, Globe, Ariz.

The Interstate Uranium Corp., 1198 Prince Street, Tucson, Ariz. holds the above described property under a lease and option agreement with Sherwood R. Green of Tucson. Green holds the property under a lease and option agreement with the owners.

DESCRIPTION OF DEPOSITS

Observed anomalous radioactivity is confined to a shaley bed of about 3 feet thickness at the base of the Upper Member of the pre-Cambrian Dripping Spring quartzite formation. In the vicinity of the main workings (figure 3) the formation strikes N. 75 W. and dips 80° south.

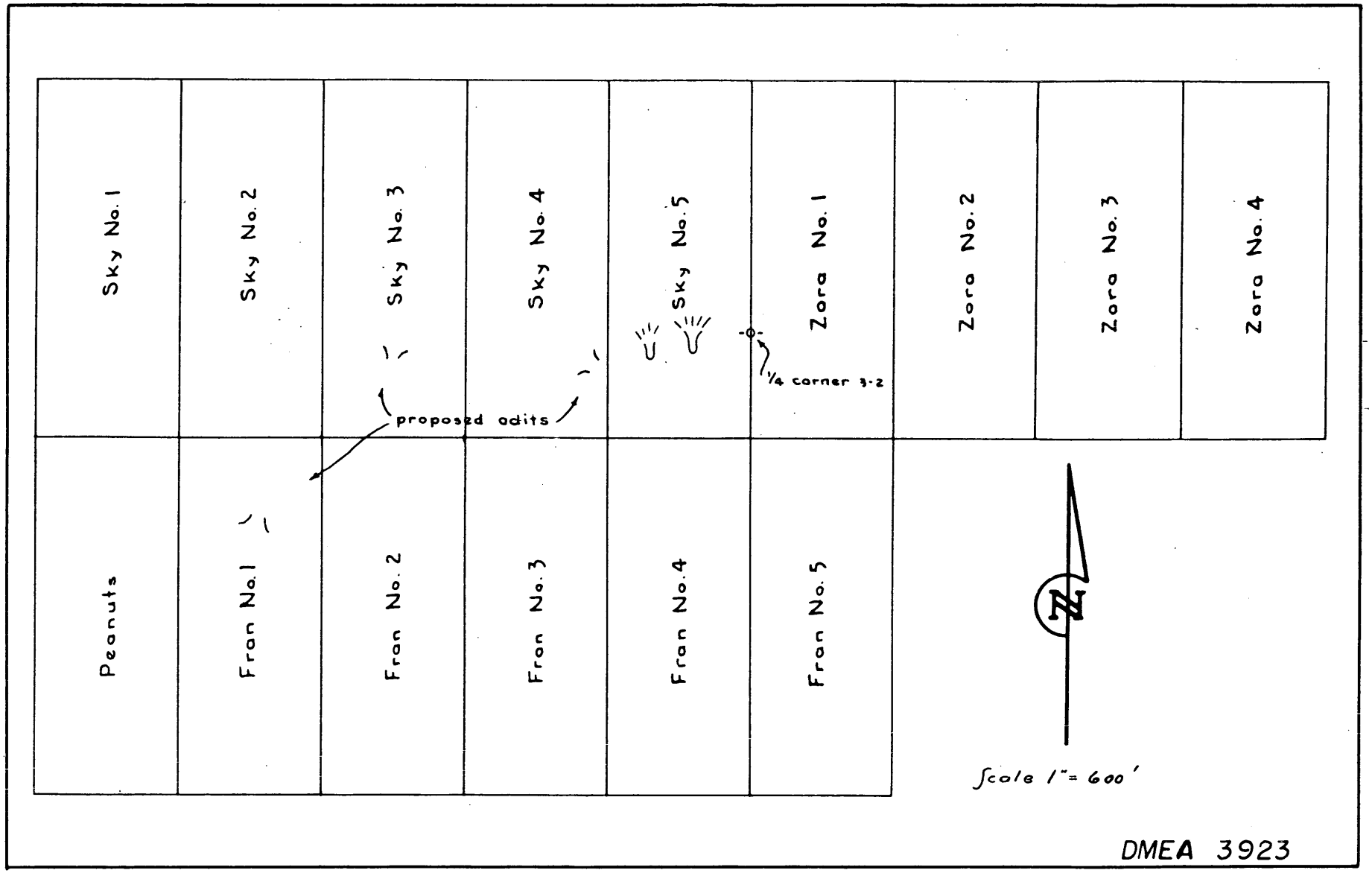

FIG.-2-CLAIM MAP, INTERSTATE URANIUM CORP.
GILA COUNTY, ARIZONA

At the main workings, an open cut about 30 feet long, uranium occurs as torbernite mainly along partings of the shaly bed. The distribution of torbernite is erratic. A similar radioactive zone is exposed in another open cut at about 60 feet west of the main workings.

The 7 diamond drill holes provided data on the down-dip extension of the radioactive zone of the above mentioned workings. Results of radiometric probing of the holes by the Atomic Energy Commission indicated: (1) the weak radiometric horizon of holes 3, 4, and 5 corresponds to the radioactive horizon of the main workings; (2) the weak radiometric horizons of holes 1 and 2 are respectively 90 feet below and 30 feet above the projected horizon; and (3), holes 6 and 7 contain no radiometric zones.

ORE RESERVES

The grade of radioactive material is based on radiometric and chemical assays shown on figure 3. The best showings are at the main workings where discontinuous zones of about 1 foot thick show about 0.1 percent U_3O_8. A 6 -foot thick zone at the most highly radioactive zone, sampled by Phelps Dodge engineers, averaged 0.06 percent U_3O_8. For the diamond drill holes, Atomic Energy Commission reported that radioactivity was due to autunite in about a 1-inch silty bed near the base of the Upper Triassic Spring quartzite.

The property contains no measurable reserves of uranium ore. The indicated and inferred reserves probably are in the order of tons, or not over 100 tons of material containing 0.1 percent U_3O_8.

CONCLUSIONS

Anomalous radioactivity is erratically distributed along a 3-foot thick shaly bed near the base of the Upper Member of the Bringing Spring quartzite formation.

At the surface the zones of highest radioactivity contain about 0.1 percent U_3O_8 over a maximum thickness of about 1 foot. At depth the width of the radioactive zone narrows to about 1 inch.

The property contains no measurable reserves of uranium ore, and the indicated and inferred reserves probably do not exceed 100 tons of material containing about 0.1 percent U_3O_8.

RECOMMENDATION

Denial of the requested aid in exploration of the Sky, Lure, Fran and Pesante claims is recommended because the possibilities of discovering significant reserves of uranium ore are unfavorable.

MINERAL DEPOSITS
DMEA
RECEIVED
DEC 19 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
DEC 23 1955

Box 4126 University Station
Tucson, Arizona

December 16, 1955

DMEA
Date Rec'd.
DEC 20 1955
BUREAU OF MINES
Denver, Colorado
TRANSMITTED
DEC 21 19

MEMORANDUM

To: Mr. E. N. Harshman

From: John N. Faick

Subject: DMEA 3923 - Interstate Uranium Corporation
Sky, Zora, Fran, and Peanuts Claims
Gila County, Arizona (Uranium)

Enclosed are the original and 10 copies of a Report of Examination of the above subject property, by Leonid Bryner. The report recommends denial of government participation because geological conditions indicate that only small reserves of sub-marginal material, containing about 0.1% U_3O_8 or less, are present. This report has my approval.

John N. Faick

John N. Faick

JNF:ms

cc: Harshman (10)
Storms

12-30-55

U. S. DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

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DEC 28 1955

REGION III

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DEC 21 1955

GEOLOGY

EXAMINATION REPORT

DMEA 3923

INTERSTATE URANIUM CORP. SKY, ZORA, FRAN, AND PEANUTS CLAIMS, GILA COUNTY, ARIZONA

(Uranium)

By
Leonid Bryner
Geologist
U. S. Geological Survey

December 14, 1955

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55

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DEC 23 1955

U. S. DEPARTMENT OF THE INTERIOR
BUREAU MINERAL EXPLORATION INVESTIGATION
FIELD TEAM III

EXAMINATION REPORT
No. 3023

INTERNATIONAL MINING CORP. (NI, 1GR), FR.X, SE
PORTS CL-1&1, GILL COUNTY, OREGON
(Oregon)

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Plate 1 -Diagrammatic Sections of Apache Group	5

In an application to the Defense Minerals Exploration Administration dated June 15, 1955, L. G. Marshall, of the Interstate Uranium Corporation, requested government participation in a project estimated to cost $45,000 to explore for uranium on the Sky and adjacent claims. The proposed work was to consist of 3,000 feet of diamond drilling and 500 feet of drifting.

The claims are located in the northeast part of the U.S.G.S. Ray Quadrangle in sections 2 and 3, T. 3 S., R. 15 E, Gila County, Arizona. The turnoff to the claims is at a point on the Winkleman road about 15 miles south of the Globe-Safford highway. From this point a narrow dirt road leads northeast about one mile to the workings.

The fifteen unpatented claims that comprise the property (Zora Nos. 1-4, Sky Nos. 1-5, Fran Nos. 1-5, and Peanuts) are leased by the applicant from George K. Angius and D. N. Zenovich, who are the locators and owners.

I spent half a day (November 17) on the property with Angius. The next day T. M. Romalo of the U. S. Bureau of Mines joined us in examining the property. The property had previously been examined by Roland J. Schwartz of AEC and H. C. Granger and Robert Raup of the USGS. These geologists, as well as the Phoenix office of the AEC, were consulted in regard to this property. M. L. Reyner[1/], in a letter dated November 22, 1955, writes:

> "From our examination of the Zora, Fran, Sky, and Peanuts claims we have concluded that they do not warrant further exploration work."

1/ Chief, Phoenix Sub-office, Salt Lake Exploration Branch, AEC.

Granger in a letter dated November 6, 1955, regards the [illegible] consisting of "secondary sub-marginal deposits." He writes:

> "Locally a concentration of ore grade material may exist in these secondary bodies, but for the most part they are not economically minable."

In discussing the property with Angius we learned that a Phelps Dodge representative, as well as Chapman and Wood of Albuquerque, also had examined and sampled the deposit. So it appears that this deposit had been unfavorably appraised by at least four different parties prior to the examination for DMEA. My impression of the property from the standpoint of a DMEA project also is unfavorable.

GEOLOGY

The Mescal Mountains, where the deposits are located, consist of Late Precambrian and Paleozoic strata that have a moderate southerly dip and are intruded by diabase. The strata dip into the south wall of a canyon that drains the westerly flank of El Capitan Mountain. A bench along this wall of the canyon marks the contact between the more resistant quartzitic lower member, and the softer, somewhat shaley upper member of the late Precambrian Dripping Spring quartzite. In the vicinity of the main working (fig. 3) the strike is N75°W and the dip 20°S. At a point about 500 feet east of the main working the strata break off against a northwesterly-trending fault that has down-dropped the ground to the north about 50 feet. At this same locality a body of diabase, more or less co-extensive with the fault, cuts across the strata.

The deposit, as exposed in the main working, which is a cut about 30 feet long, is in the base of the upper member, about 10 feet stratigraphically above the lower member. This is about 100 feet stratigraphically below the horizon of most of the known Dripping Spring uranium deposits (Plate 1). Anomalous radioactivity is confined to a light-gray, shaley bed about 3 feet thick. Uranium in the form of torbernite occurs mainly along partings in this bed. No primary uranium minerals have been found. Distribution of torbernite across as well as along the shaley bed is erratic. Another cut about 80 feet west of the main working along the outcrop exposes the same radioactive zone. Exposures are too poor to check the continuity of this zone between both workings. But beyond both workings, significant radioactivity persists for a short distance along the outcrop. Granger, in his letter, states: "Local high radioactivity at about the same horizon was noted over more than 400 feet of outcrop."

In back of the outcrop, diamond drilling has provided additional information on the distribution of anomalous radioactivity. The results of radiometric probing of the diamond drill holes were sent to us by R. J. Schwartz in a letter dated November 5, 1955. In order to correlate this radiometric data I made a Brunton-tape survey of the holes. From the locations and collar elevations so obtained, it appears that the radiometric horizon in holes 3, 4, and 5 corresponds to the down-dip extension of the radioactive horizon exposed in the two workings, but that the other two holes, namely 1 and 2, showed radioactivity respectively 90 feet below and 30 feet above the projected horizon. Holes

6 and 7, which are farthest from the outcrop, did not show any more than trace anomalous radioactivity. This information suggests that the main radioactive zone does not persist more than 80 feet into the canyon wall, that two minor zones at different horizons occur about 95 and 135 feet in from the wall, and that 220 feet and farther in from the wall, no significant anomalous radioactivity is present.

The deposit probably was formed by ground water that leached uranium from the slightly radioactive upper member and, in moving down, encountered relatively impervious rock near the top of the lower member. The ground water thus accumulated in the base of the upper member and might have deposited some of its uranium by evaporation close to the outcrop. Progressive stripping back by erosion of the outcrop in a down dip direction might have caused further concentration of this uranium near the outcrop by re-solution and re-deposition. Under this theory the deposits are spatially related to topography as well as to structure. A possibility advanced by Granger is that uranium leached from the upper member might have accumulated in paleo channels in the top of the lower member.

GRADE AND RESERVES

No shipments have been made from this property. Grade data is based on sampling. The results of most of this sampling is shown in figure 3. The best showings contain about 0.1 percent U_3O_8. But rock of this grade generally occurs in a zone that is less than one foot in thickness and that is discontinuous though approximately at the same horizon. A sample of the main working by Phelps Dodge examiners

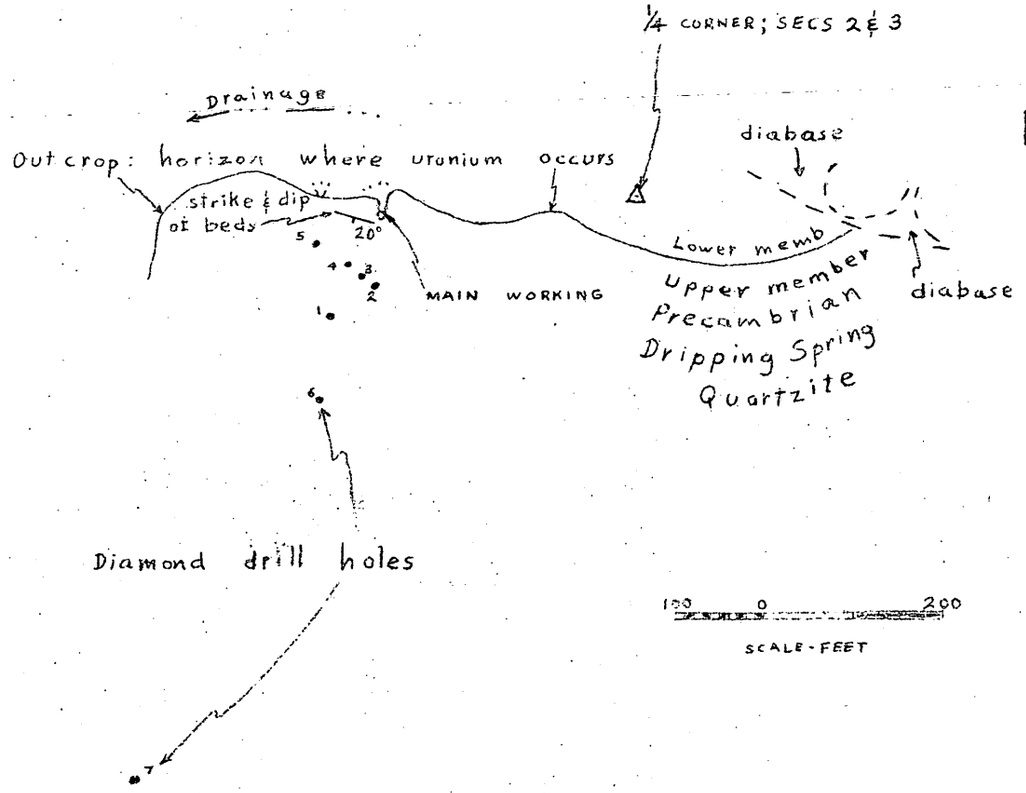
indicates that as much as 6 feet of 0.05 percent material occurs near the surface at the most highly mineralized showing found on the property. None of the diamond drill holes, however, found any such thicknesses a short distance back of the outcrop. In fact, Schwartz concluded from examining the core that radioactivity was "due to meta-torbernite in about a 1-inch silty bed near the base of the upper Dripping Spring quartzite."

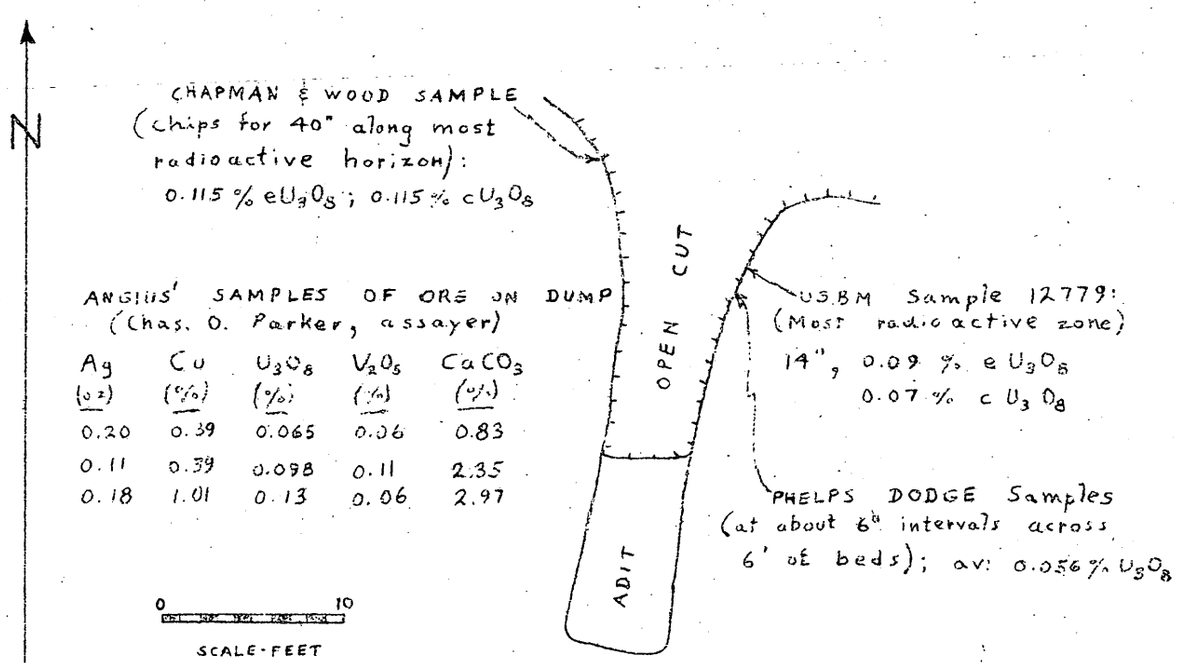
Although the applicant has removed some of the drill core from the boxes for sampling purposes, he has not complied with our request for the complete assay returns of this sampling. He did, however, submit 15 radiometric assays for unspecified intervals of the core from hole No. 7. These radiometric assays ranged from less than 0.01 to 0.03 percent. They confirm the low value obtained by radiometric probing.

Not enough is known about the distribution of uranium and about ore controls to estimate indicated and inferred reserves with any reliability. But the best material, averaging 0.1 percent U_3O_8, probably represents reserves on the order of tens or, at the most, hundreds of tons.

CONCLUSIONS AND RECOMMENDATIONS

The best ore here is marginal in grade. The possibility of discovering a significant tonnage of such ore seems poor because the outcrop shows only a thin, highly discontinuous ore zone, and because this zone probably does not persist more than 50 to 100 feet behind the outcrop. My recommendation, therefore, is that government participation in this project be denied.





ANGIUS' SAMPLES OF ORE ON DUMP (Chas. O. Parker, assayer)

Ag (oz)	Cu (%)	U_3O_8 (%)	V_2O_5 (%)	$CaCO_3$ (%)
0.20	0.39	0.065	0.06	0.83
0.11	0.39	0.098	0.11	2.35
0.18	1.01	0.13	0.06	2.97

MAIN WORKING

AEC DATA ON HOLE PROBING

Hole No.	Collar Elev. (feet above ore at main working; USGS data)	Depth (ft.)	Mr/hr*
		172	0.9
1	+41	173	0.7
2	+29	22	0.17
3	+26	46	0.26
4	+23	45	0.7
5	+15	34 35	1.2 0.4
6	+66		<0.2
7	−23		<0.2

*Probe calibration: 0.7 Mr/hr = 0.10 % eU_3O_8; 1.4 Mr/hr = 0.20 % eU_3O_8

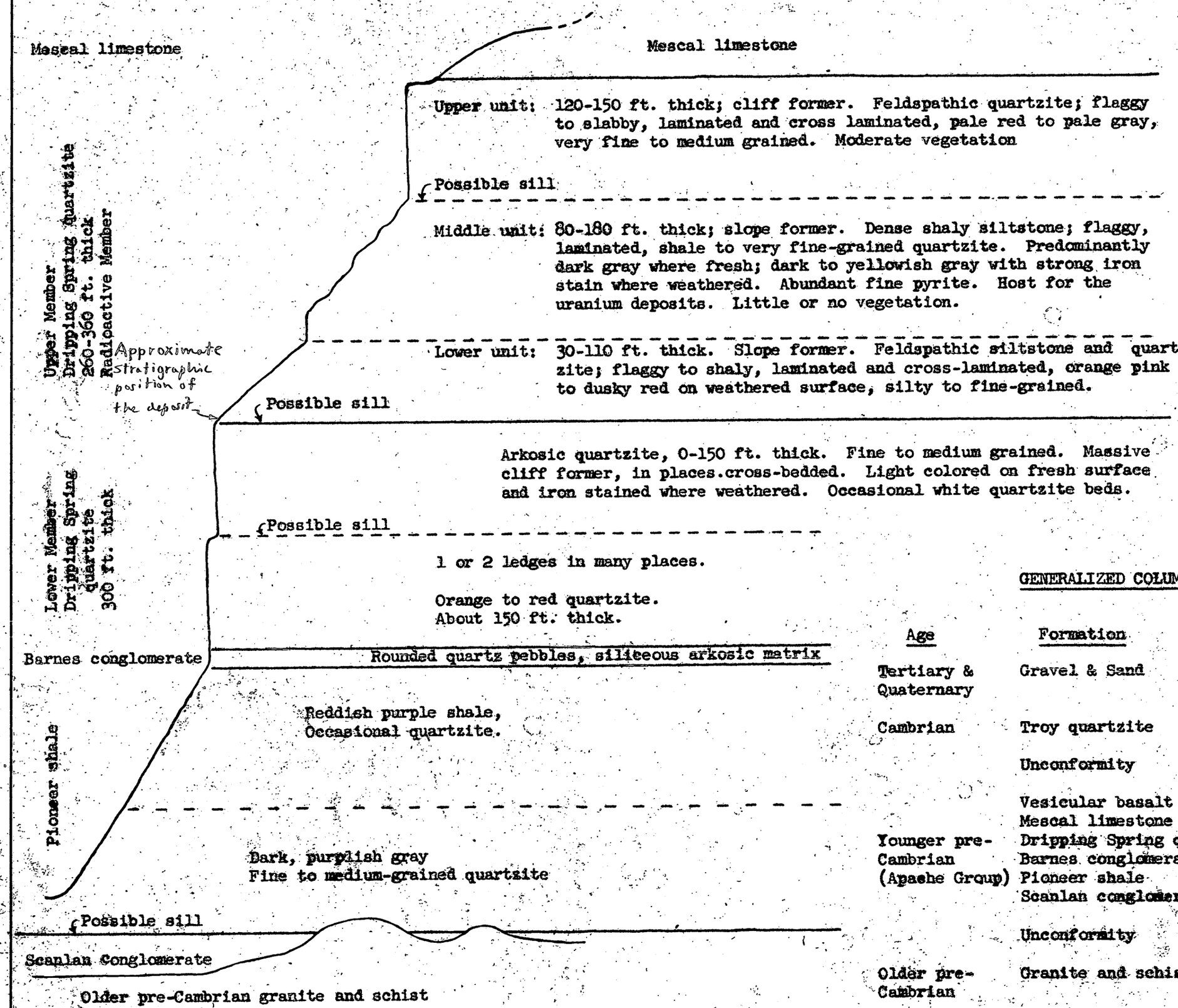
FIG. 3 - GEOLOGIC AND ASSAY MAP OF INTERSTATE URANIUM CORP. WORKINGS ON SKY, ZORA, AND FRAN CLAIMS, GILA COUNTY, ARIZONA

Brunton survey by Lionel Brymer, USGS, Nov. 17, 1955

DMEA-3923

PLATE I

DIAGRAMATIC SECTION OF APACHE GROUP IN GILA COUNTY AND ADJACENT AREAS, ARIZONA



GENERALIZED COLUMNAR SECTION

Age	Formation	Thickness (feet)	Average Thickness
Tertiary & Quaternary	Gravel & Sand		
Cambrian	Troy quartzite	500	
	Unconformity		
Younger pre-Cambrian (Apache Group)	Vesicular basalt flow	0-75	75
	Mescal limestone	225-400	300
	Dripping Spring quartzite	450-700	700
	Barnes conglomerate	0-50	
	Pioneer shale	150-250	250
	Scanlan conglomerate		
	Unconformity		
Older pre-Cambrian	Granite and schist		

L. G. MARSHALL
CONSULTING ENGINEER
MINING - GEOLOGY

RECEIVED
SEP 1 3 1955

September 14th, 1955
Box 5238
Tucson, Arizona

Mr. Ernest W. Ellis, Chief,
Rare and Miscellaneous Metals
Division
United States Department of the
Interior
Washington, 25, D. C.

RE: Docket No.DMRA-3923
(Uranium)

Dear Mr. Ellis:

I regret the delay in answering your recent correspondence, however, it was necessitated by my absence from Tucson on business.

The holes were radiometrically logged by the Globe representative of the A.E.C. at the request of George K. Angius, Miami, Arizona, local representative of the Interstate Uranium Co. It is understood that the company did not and does not have suitable equipment for this operation. It is my understanding that no formal radiometric report was made to the company by the A.E.C. engineer. It is understood that the values indicated ranged up to 0.20%. Core recovery in the shale bed was poor and radiometric comparative analysis indicated values of sub-commercial grade. No official record of these analysis exists. The surface exposure of the 4 to 6 foot mineralized shale bed shows the preponderance of mineralization existing in the heavily fractured portions which would be extremely difficult to core. The logical assumption here would be that a good percentage of the values were not recovered by the drilling. The purpose of the 300 foot crosscut is to determine the true nature and value of the shale bed in the immediate area. All future work in this area will be under competent, experienced supervision.

Scintilometer readings can be obtained at numerous spots throughout the 4000 feet of shale bed exposure. The drift on the Sky #3 claim is located to explore a zone of heavy vertical fracturing in both the shale and quartzite strata. The immediate area shows a pronounced increase in radioactivity in the shale and quartzite. This is indicative of similar zones in the same formation in the Sierra Ancha district that have accounted for a considerable portion of this districts production to date. The 100 foot crosscut would be driven in the fracture zone and in the shale bedding. The crosscut will be driven along the strike of the shale bed which, because of the topography at this point, approximates the strike of the fractured zone.

The adit on the Fran #1 claim is located to explore a "hot" zone in the quartzite beds overlying the mineralized shale bed. The only indication of mineralization in this particular area is the high geiger readings. No exploration work has been done.

The lack of suitable topographic and geologic maps is regretable. However, I am forwarding copies of the Ray Quadrangle showing the outlined area embraced by this group of claim and indicating the approximate trace of the shale bed outcrop.

Cut samples taken in the present workings on Sky #5 range from .09% to .41% uranium oxide. There are several locations other than those discussed herein, that show a very high count. However, the locations chosen appear to have the most promise (by geiger count) and to be situated in the most favorable attitudes for mining purposes. Should the proposed exploration prove favorable it is possible that a large tonnage of ore can be made available to the Cutter purchasing depot. The extent of the shale bed down dip is unknown but should be very extensive in view of the mile long exposed

outcrop.

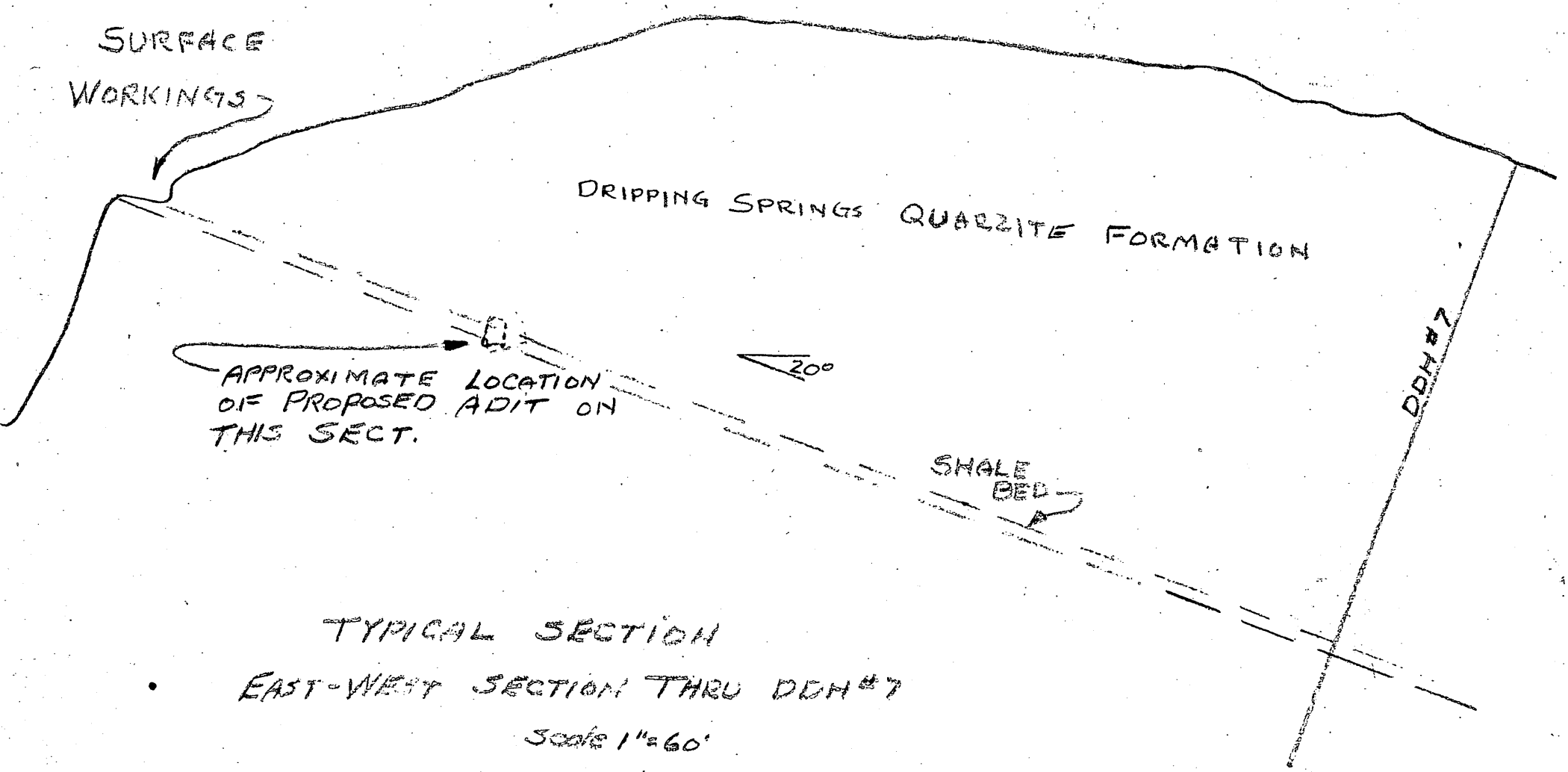
This property definitely warrants additional comprehensive exploration. Should the exploration show quantities of commercial ore, it means that a newdistrict will be opened for the production of uranium.

Sincerely,

L. G. Marshall

L. G. Marshall

LGM:vka



TYPICAL SECTION

EAST-WEST SECTION THRU DDH #7

Scale 1" = 60'

DOCKET # DMRA-3923

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Date Rec'd.
JUL 22 1955

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

BUREAU OF MINES
Denver, Colorado

RECEIVED
JUL 29 1955

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. 3923
Metal or Mineral Uranium
Date Received 7-29-55
Estimated Cost $45,000
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: ~~Interstate Uranium Co., 9317 Colima Road, Whittier, California~~
A partnership (consisting of):
O. Orin Swain, 9317 Colima Rd., Whittier, California
S. H. Woodruff, 630 S. Rossmore Ave., Los Angeles, California

(*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

~~See attached abstracts~~

(*b*) State any mine name by which the property is known.

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

~~Under Option for Purchase~~

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it

(*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 ---30--- days and be completed within ---7--- 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)?

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

[X] Money [X] Use of equipment owned by you [X] 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 ---6-15--- , 195--5--

Interstate Uranium
(Applicant)

By L. B. Marshall

1150 W. Prince

Tucson, Arizona

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

DMEA
Date Rec'd.
JUL 22 195
BUREAU OF MINES
Denver, Colorado

RECEIVED
JUL 20 1955

P. O. Box 5238
Tucson, Arizona
July 16, 1955

DMEA
U. S. Bureau of Mines
Custom House Bldg.,
Denver, Colorado

Gentlemen:

Attached is an application for a loan to explore the Interstate Mining property in the El Capitan district southeast of Globe, Arizona.

There have been seven holes drilled on the property to date. Because of the variance in core analysis and probings and the spotty character of the mineralization it is desirable to drive exploration drifts into the indicated ore zone to obtain comprehensive samples of the ore.

Inasmuch as this is the most promising deposit in this district it is requested that your Tucson branch office and the AEC office in Globe, Arizona, work in close conjunction with the present operators to determine the true worth of this property.

The ore horizon has been cut in all seven drill holes. Probings by the AEC indicate a possible reserve of ore averaging better than 0.10 percent uranium oxide. Assays from the outcrop have been as high as .410 percent; however, a more comprehensive analysis of the ore deposit is required.

Yours very truly,

L. G. Marshall

L. G. Marshall

LGM;m
Attachments

5. Applicants property rights -

(b) Interstate Mine

(d) Abstracts attached

(f) Abstracts attached

4. Physical description -

(a) Six diamond drill holes have been drilled to date upon the property. The drilling has been conducted under contract by R. S. McClintock, 418 W. Second Avenue, Spokane 7, Washington. In addition approximately 200 feet of dozer trenching has been completed and about 600 cu. feet of hand trenching has been done on the vein. The trenching was done by the original owners. The diamond drilling and one-half mile of excess road has been done by Interstate Uranium. All openings with the exception of Hole No. 3 are accessible.

(b) No past production. The present ore reserves, as indicated by probings, by R. S. Schwartz, Atomic Energy Representative, Globe, Arizona, indicate 13,000 tons of .10 percent uranium oxide, with a probable recoverable tonnage of 8,000 tons. This ore reserve is in the vicinity of the outcrop. It is desirable to determine the tonnage down dip from the present indicated ore reserves. From examination of the attached sections it is apparent that the possibility of concentration of the uranium oxides down the dip exist. The purpose of the proposed exploration program is to explore the mineralized zone at a maximum depth below the outcrop of about 300 feet. Recent developments in the Sierra Ancha district indicate a low grade zone of mineralization in the vicinity of the outcrop with concentrations of commercial grade ore at varying depths. The Interstate property is in the same formation as the Sierra Ancha deposits. The proposed exploration work is indicated on the accompanying maps.

(c) The mineralization occurs in a shale bed of variable thickness, 3 to 6 feet, in the Dripping Springs Quartzite formation. The strike of the shale bedding is S. 85 W. and the dip is 21° southerly. Some areas of appreciable count were noted in the hanging wall quartzite. The shale bedding has been roughly exposed by two open cuts, one approximately thirty feet in length and one about ten feet in length. These are horizontal cuts and do not follow the shale in their entirety but run into the overlying quartzite. Six probe holes six feet deep have been drilled over a 100 foot strike length of the shale exposure. Extensive weathering is apparent in all exposures. The shale outcrop can be traced for approximately 4000 feet. The present exploration workings contain about 300 feet of this exposure although a scintillator count can be obtained throughout its strike length. The mineralization is secondary, and occurs as torbernite or metatorbernite. The vanadium and copper content is minor. The mineralization occurs along partings of the shale bedding. Please refer to accompanying maps.

(d) The property is adjacent to the Winkleman-Globe road, graded and maintained, and is reached as follows: on the Winkleman turnoff five miles east of Globe on the Safford Highway proceed for 14.8 miles, thence 1.2 miles east on a bulldozer road to a centrally located point on the group of claims. The nearest source of supplies is Globe. The nearest shipping point is Hunter, 15 miles northerly.

(e) The work requested will be done under contract. Contracting facilities are available within the area.

5. The exploration project -

(b) 3000 feet of diamond drilling and 500 feet of drifting are requested. Please refer to accompanying maps.

(d) The work will be under the supervision of L. G. Marshall, Consulting Engineer, Tucson, Arizona, former Mining Engineer and Geologist with Anaconda Copper, Kennecott Copper and the U. S. Bureau of Mines. (See attached personal data)

6. Estimate of costs - A unit-cost form of contract is requested.

(a)	3000 feet of diamond drilling @ $7 per foot	$21,000.00
	500 feet of drifting @ $30 per foot	15,000.00
		$36,000.00

(b)(c)(d)(e)(f)(g)(h)

3000 feet of diamond drilling @ $2.50 per foot	$7,500.00
500 feet of drifting @ $3.00 per foot	1,500.00
	$ 9,000.00

Grand Total	$45,000.00

7.

(a) Yes.

(b) Interstate Uranium Company is prepared to furnish their share of the cost on a cash basis.

COPY

Box 5238
Tucson, Arizona

September 21, 1954

Mr. Sherwood B. Owens
4052 Calle De Jardin
Tucson, Arizona

Dear Sir:

On September 18th and in the company of George K. Angius, Miami, Arizona, I examined the Zora, Sky, Fran, and Peanuts Group of claims in the El Capitan Mining District, Gila County, Arizona.

The property is adjacent to the Winklemen-Globe road, graded and maintained, and is reached as follows: on the Winkleman turnoff five miles east of Globe on the Safford Highway proceed for 14.8 miles, thence 1.2 miles east on a bulldozer road to a centrally located point on the group of claims. The last one mile is accessible only by a four-wheel drive vehicle. The nearest source of supplies is Globe. The nearest shipping point is Hunter, 15 miles northerly.

The mineralization occurs in a shale bed of variable thickness, 3 to 6 feet, in the Dripping Springs Quartzite formation. The strike of the shale bedding is S. 85 W. and the dip is 21° southerly. Some areas of appreciable count were noted in the hanging wall quartzite. The shale bedding has been roughly exposed by two open cuts, one approximately thirty feet in length and one about ten feet in length. These are horizontal cuts and do not follow the shale in their entirety but run into the overlying quartzite. Six probe holes six feet deep have been drilled over a 100 foot strike length of the shale exposure. The location, attitude and extent of the present exploration workings do not allow a comprehensive conclusion on the probable worth of the property but further investigation is definitely warranted. Assays to date indicate a probable uranium oxide content as torbernite of 0.13 to 0.23 percent, copper 0.40 to 1.01 percent, vanadium 0.06 to 0.11 percent and a

silver content of 0.20 oz. Judging from the present exposures no sample was obtained at a depth greater than three feet from the surface. Extensive weathering is apparent in all exposures. The shale outcrop can be traced for approximately 4000 feet. The present exploration workings contain about 200 feet of this exposure although a scintillator count can be obtained throughout its strike length.

In view of the above facts this property definitely warrants further investigation. A comprehensive drilling program is recommended to investigate the mineral content in the unweathered zones. In conjunction with this program the extension of the open cuts down the dip of the shale bedding for a depth of 75 to 100 feet is also recommended.

The attitude of the deposit which is agreeable to slusher room and pillar mining, its extent with attendant large tonnage, its accessibility and its apparent mineral content as presently indicated point toward a possible producing operation.

The Miami Copper Corporation has conducted a drilling program in the vicinity but at a stratigraphically lower elevation and in the quartzite phases of the formation.

The property is located in R. 15 E, T 3 S, Sect. 2 & 3, and is claimed by George K. Angius and D. N. Zenovich, Miami, Arizona.

Respectfully,

L. G. Marshall
Registered Professional Engineer
License 1920

A B S T R A C T O F T I T L E

T O

L O D E M I N I N G C L A I M S

SKY NO. 1	ZORA NO. 1	FRAN NO. 1
SKY NO. 2	ZORA NO. 2	FRAN NO. 2
SKY NO. 3	ZORA NO. 3	FRAN NO. 3
SKY NO. 4	ZORA NO. 4	FRAN NO. 4
SKY NO. 5	PEANUTS	FRAN NO. 5

E L C A P I T A N M I N I N G

D I S T R I C T

G I L A C O U N T Y

A R I Z O N A

RECEIVED
JUL 29 1955

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #1 mining claim, was located by the undersigned, George K. Angius, on the 1st day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southerly direction from Globe.

Dated and posted on the ground the day and year first above written.

George K. Angius.

X Jose Ortega
Witness
George K. Angius.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 507, Records of Gila County, State of Arizona.

111 123456789

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #2 mining claim, was located by the undersigned, George K. Angius, on the 1st day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northerly direction from Globe.

Dated and posted on the ground the day and year first above written.

X JOSE ORTEGA
Witness.
George K. Angius.

George K. Angius.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 508, Records of Gila County, State of Arizona.

1-2-3-4-5-6-7-8-9

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #3 mining claim, was located by the undersigned, George K. Angius, on the 1st day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northerly direction from Globe.

Dated and posted on the ground the day and year first above written.

George K. Angius.

X Joe Ortega
Witness by
George K. Angius.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 509, Records of Gila County, State of Arizona.

K - 6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #4, mining claim, was located by the undersigned, George K. Angius, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a north westerly direction from Globe, Arizona.

Dated and posted on the ground the day and year first above written.

X Jose Ortega
Witness
Dushan N. Zenovich.

George K. Angius
Dushan N. Zenovich

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 510, Records of Gila County, State of Arizona.

BK 6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #5 mining claim, was located by the undersigned, George K. Angius, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the northwest end and 200 feet from the southeast end of this claim.

The general course of this claim is from northwest to southeast

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

X Jose Ortega
Witness
Dushan N. Zenovich.

Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 511, Records of Gila County, State of Arizona.

LOCATION NOTICE

LODE MINING CLAIM

This mining claim, the name of which is the ZORA #1 mining claim, was located by the undersigned, DUSAN ZENOVICH, on the 4 day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the northwest end and 200 feet from the woutheast end of this claim.

The generdl course of this claim is from northwest to southeast. This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe.

Dated and posted on the ground the day and year first above written.

Dushan Zenovich

X Jose Ortega
Witness
Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 512, Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Zora #1 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by Dushan N. Zenovich, a citizen of the United States, George K. Angius, a citizen of the United States, the undersigned, on the 2nd day of Feb. 1955, .

The length of this claim is 1500 feet and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22miles in a southerly direction from Globe, Arizona.

The Claim is located in Section 2, Twp. 3 S. Rge. 15 E.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a point which is 2100! North and 300! East of the Southwest corner of said Section 2, at a point in a southerly direction 200 feet from the discovery shaft (at which this notice is posted). being in the center of the South end line of said claim; thence 300 feet to a 4 x 4 monument being the southeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the northeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the north end of said claim; thence 300 feet to a 4 x 4 monument being at the northwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the southwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955

George K. Angius
Dushan N. Zenovich

Filed and recorded on February 3rd, 1955, in Docket 25, at Page 135, Records of Gila County, Arizona.

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Zora #2 mining claim, was located by the undersigned, Dushan N. Zenovich, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the northwest end and 200 feet from the southeast end of this claim.

The general course of this claim is from northwest to southeast

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe.

Dated and posted on the ground the day and year first above written.

Dushan N. Zenovich.

X Jose Ortoga
Witness
Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 513, Records of Gila County, State of Arizona.

Vol 6

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Zora #2 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by Dushan N. Zenovich, a citizen of the United States and George K. Angius, a citizen of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet, and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface ground, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe Ariz.

This claim is located in Section 2, Twp 3S, Rg 15 E., and adjoins the Zora Claim #1 to the west.

The surface boundaries of the claim are marked upon the ground as follows, Beginning at stone monument at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955.

George K. Angius
Dushan N. Zenovich.

Filed and recorded February 3rd, 1955, in Docket 25, at Page 136, Records of Gila County, State of Arizona.

MC 6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Zora #3 mining claim, was located by the undersigned, Dushan N. Zenovich, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from northwest to southeast.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe.

Dated and posted on the ground the day and year first above written.

Dushan N. Zenovich.

X His Mark
Witness
Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 514, Records of Gila County, State of Arizona.

ok 6

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Zora #3 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by Dushan N. Zenovich a citizen of the United States, and George K. Angius, a citizen of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

This claim is located in Section 2 Township 3 South Range 15 E. and adjoins the Zora #2 to the West.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the North end line of said claim; thence 600 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument, at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 600 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955.

George K. Angius
Dushan N. Zenovich

Filed and recorded February 3rd, 1955, in Docket 25, at Page 13 Records of Gila County, State of Arizona.

OK 6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Zora #4 mining claim, was located by the undersigned, Dushan N. Zenovich, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1200 feet from the north end and 300 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe.

Dated and posted on the ground the day and year first above written.

Dushan N. Zenovich

X His Mark
Witness
Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 515, Records of Gila County, State of Arizona.

ok L

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN;

This Mining Claim, the name of which is the Zora #4 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by Dushan N. Zenovich a citizen of the United States, and George K. Angius, a citizen of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

This claim is located in Section 2, Township 3 South, Range 15 E., and adjoins the Zora #3 Claim to the West.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the south east corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955.

George K. Angius
Dushan N. Zenovich

Filed and recorded on February 3rd, 1955, in Docket 25, at Page 138, Records of Gila County, State of Arizona.

ok 6

NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining claim, the name of which is the Peanuts Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Anglus, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet, and I claim 100 feet in a northerly direction and 1400 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

This claim adjoins Sky #1 to the north and Ortegas claim Camp Bud to the west.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 100 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

Dated and posted on the grounds this 24th day of April, 1954.

George K. Anglus.

Filed and recorded on August 12, 1954, in Docket 13, at Page 239, Records of Gila County, State of Arizona.

ok

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #1 mining claim, was located by the undersigned, George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 600 feet from the north end and 900 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Arizona.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 430 Records of Gila County, State of Arizona.

ok 6

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #1 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet, and I claim 100 feet in a northerly direction and 1400 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

This claim adjoins Sky #2 claim to the north and peanuts claim on the east-side of said claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 100 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

This is an amended Location notice of the Fran #1 Mining Claim, located by George K. Angius on the 24th day of April, 1954 and recorded Docket 9-Page 480 of Records of Mines, at page 480 in the office of the County Recorder of the aforesaid County of Gila, to which reference is hereby made, and this amended location notice is made and posted to correct errors in the description in the said original location notice.

Dated and posted on the ground this 14th day of June, 1954.

George K. Angius.

Filed and recorded August 12, 1954, in Docket 13, at Page 240, Records of Gila County, State of Arizona.

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #2 mining claim, was located by the undersigned George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 600 feet from the north end and 900 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan, mining district, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 481, Records of Gila County, State of Arizona.

OK 6

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #2 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet and I claim 100 feet in a northerly direction and 1400 feet in a southerly direction from the center of the discovery shaft, (at which this notice is posted) lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe, Arizona.

This claim adjoins Sky #3 to the north and Fran #1 on the east side of the said claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 100 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the south east corner of said claim; thence 300 feet to a 4 x 4 monument at thecenter of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an amended Location Notice of the Fran #2 mining claim located by George K. Angius on the 24th day of April, 1954, and recorded in Docket 9 of Record of Mines at page 481, in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended location notice is made and posted to correct errors in the description in the said original location notice.

Dated and posted on the grounds this 14th day of June, 1954.

George K. Angius.

Filed and recorded on August 12th, 1954, in Docket 13, at Page 241 Records of Gila County, State of Arizona,

ok l

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #3 mining claim, was located by the undersigned, George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 600 feet from the north end and 900 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a Southwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 282, Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #3 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet and I claim 100 feet in a northerly direction and 1400 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

This claim adjoins Sky #4 to the north Fran #2 on the east and Fran #4 on the West sides of said claims.

The surface boundaries of the claim are marked upon the ground as follows, Beginning at stone monument at a point in a northerly direction 100 feet from the discovery shaft (at which this notice is posted), being in the center of the North end line of said claim; thence 300 feet to a 4 x 4 monument, being the northwest corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an amended location notice of the Fran #3 Mining Claim, located by George K. Angius on the 24th day of April, 1954, and recorded in Docket 9, of Record of Mines, at Page 482, in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in the said original location notice.

Dated and posted on the grounds this 14th day of June, 1954.

George K. Angius.

Filed and recorded on August 12, 1954, in Docket 13, at Page 242, Records of Gila County, State of Arizona.

of 6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #4, mining claim, was located by the undersigned, George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 600 feet from the north end and 900 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 483 Records of Gila County, State of Arizona.

ok b

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #4 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet and I claim 200 feet in a northerly direction and 1300 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe Ariz.

This claim adjoins Sky #5 to the north and Fran #3 on East and Fran #5 on the west sides of said claims.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 200 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the north east corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an amended Location Notice of the Fran #4 Mining Claim, located by George K. Angius, on the 24th day of April, 1954 and recorded in Docket 9 of Record of Mines at Page 483 in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended location notice is made and posted to correct errors in the description in the said original location notice.

Dated and posted on the ground this 14th day of June, 1954.

George K. Angius.

Filed and recorded on August 12th, 1954, in Docket 13, Page 243, Records of Gila County, Arizona.

116

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #4 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by George K. Angius Dushan N. Zenovich, citizens of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet and we claim 200 feet in a northerly direction and 1300 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Ariz.

This claim is located in Section 2 Township 3 S, Range 15 E.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 200 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet toa 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument, at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of Feb. 1955.

George K. Angius
Dushan N. Zenovich.

Filed and recorded on February 3rd, 1955, in Docket 25, at Page 139, Records of Gila County, State of Arizona.

OK 6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #5 mining claim, was located by the undersigned, George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 300 feet from the north end and 1200 feet from the south end of this claim.

The general course of this claim is from North to South.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 484, Records of Gila County, State of Arizona.

OKE

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining claim, the name of which is the Fran #5 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by George K. Angius, Dushan N. Zenovich, citizens of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet and we claim 200 feet in a northerly direction and 1300 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe Ariz.

This claim is located in Section 2, Township 3 S. Range 15 E.

The Surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 200 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the South end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955.

George K. Angius

Filed and recorded on February 3rd, 1955, in Docket 25, At Page 140 Records of Gila County, State of Arizona.

of 6

AGREEMENT

This Agreement, made and entered into this 29th day of January, 1955, by and between GEORGE K. ANGIUS of Miami, Arizona, and D.N. ZENOVICH, of Globe, Arizona, hereinafter called SELLERS, and SHERWOOD B. OWENS, of Tucson, Arizona, as BUYER herein,

WITNESSETH:

1. OPTION TO PURCHASE

BUYER, for and in consideration of the sum of Ten Dollars cash in hand paid, receipt of which is hereby acknowledged, and the covenants herein set forth, is hereby granted by SELLERS the exclusive option to purchase, and the right to take possession of, to mine and to take ore from, on the terms hereinafter set forth, that certain group of fifteen unpatented mining claims in the El Capitan Mining District in Gila County, Arizona, location notices of which are recorded in the office of the County Recorder of Gila County, Arizona, in the Dockets and at the Pages set opposite their names, to-wit:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 2	6	513
Zora No. 3	6	514
Zora No. 4	6	515
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 3	6	509
Sky No. 4	6	510
Sky No. 5	6	511
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended	13	243
Fran No. 5	9	484
Peanuts.	13	239

2. PURCHASE PRICE

The purchase price of the above described mining claims, in the event BUYER elects to purchase same, is Two Hundred Fifty Thousand ($250,000.00) Dollars, but said option shall not be considered as exercised until the entire purchase price shall have been paid in full. All cash, ore and/or mill royalty payments made to SELLERS shall apply on the purchase price. The entire option price of Two Hundred Fifty Thousand ($250,000.00) Dollars herein provided for shall be paid in full on or before March 1, 1980, and if not so paid, this agreement shall immediately terminate automatically at midnight on March 1, 1980, and BUYER shall have no further rights hereunder.

* * * * * * * 13. OTHER CONDITIONS.

Time is of the essence of this agreement, which shall be binding upon the heirs, executors, administrators or assigns of all parties hereto and the requirements hereof shall be subject to such interruption as might arise from strikes, riot, war and acts of God.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands the day and year first hereinabove written.

SELLERS:

George K. Angius
D. N. Zenovich

BUYER:

Sherwood B. Owens.

ACKNOWLEDGED as signed by George K. Angius, D.N. Zenovich and Sherwood B. Owens, on January 29th, 1955, before George K. Dea, Notary Public, Gila County, State of Arizona. (Seal) Commission Expires: January 14th, 1957.

Filed and recorded in Docket 25, at Page 37, on January 31st, 1955, Records of Gila County, State of Arizona.

STATE OF ARIZONA)
) SS:
COUNTY OF GILA)

The GILA COUNTY ABSTRACT COMPANY hereby certifies that the foregoing TWENTY SIX (26) entries, make constitute and form a full, true, correct and complete ABSTRACT OF TITLE to Lode Mining Claims known as the ZORA; SKY and FRAN GROUPS of Mining Claims as described on the Caption hereof, situate, lying and being in the El Capitan Mining District, Gila County, State of Arizona, according to the records in the offices of the County Recorder, County Tax Collector and Clerk of the Superior Court, all in and for the County of Gila and State of Arizona, which show said entries to be true on this the 10th day of February, A.D., 1955, at 4:15 o'clock P.M.

IN WITNESS WHEREOF, The GILA COUNTY ABSTRACT COMPANY has caused this Certificate to be signed by its Secretary thereunto duly authorized on this the 10th day of February, A.D., 1955, at 4:15 o'clock P.M.

GILA COUNTY ABSTRACT COMPANY

Secretary.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Sky #2 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 15th day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet, in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

This is an amended location notice of the Sky #2 Mining Claim, located by George K. Angius, on the 1st day of April, 1954, and recorded in Docket 6 of Record of Mines, at Page 508, in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended location notice is made and posted to correct errors in the description in the said original Location Notice.

Dated and posted on the grounds this 15th day of February, 1955

George K. Angius.

Filed and recorded February 16th, 1955, in Docket 25, at Page 430 Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
Lode Claim.

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Sky #3 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 15th day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet in northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of the said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an Amended Location Notice of the Sky #3 Mining Claim, located by George K. Angius on the 1st day of April, 1954, and recorded in Book, Docket 6, of Record of Mines at Page 509, in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in said original Location Notice.

Dated and posted on the grounds this 15th day of February, 1955.

George K. Angius.

Filed and recorded on the 16th day of February, 1955, in Docke 25, at Page 431, Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Sky #4 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 15th day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an Amended Location Notice of the Sky #4 Mining Claim, located by George K. Angius, on the 4th day of April, 1954, and recorded in Book Docket 6, of Record of Mines, at Page 510, in the office of the County Recorder of the aforesaid County of Gila, t which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in the said original Location Notice.

Dated and posted on the grounds this 15th day of February, 1955

George K. Angius.

Filed and recorded on February 16th, 1955, in Docket 25, at Page 432 Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Sky #5 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 15th day of February, 1955.

The length of this claim is 1500 feet and I claim 1500 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

This is an amended Location Notice of the Sky #5 Mining Claim, located by George K. Angius on the 4th day of April, 1954, and recorded in Book Docket 6 of Record of Mines at Page 511 in the Office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in the said original Location Notice.

Dated and posted on the grounds this 15th day of February, 1955

George K. Angius.

Filed and recorded on February 16th, 1955, in Docket 25, Page 433, Records of Gila County, State of Arizona.

STATE OF ARIZONA)
) SS:
COUNTY OF GILA)

The GILA COUNTY ABSTRACT COMPANY hereby certifies that the foregoing FOUR (4) entries, make, constitute, form and complete a full, true and correct Abstract of Title, to the SKY NO. 2, SKY NO. 3, SKY NO. 4 and SKY NO. 5 Lode Mining Claims, situated in the El Capitan Mining District, Gila County, State of Arizona, and particularly described on the FOUR (4) next preceeding pages, as the same appear of record in the office of the County Recorder and the Clerk of the Superior Court, of Gila County, State of Arizona, aforesaid; all of which show said entries to be true this 16th day of February, A.D., 1955, at 4:45 o'clock P.M.SUBSEQUENT, HOWEVER, to the 10th day of February, A.D., 1955, at 4:15 o'clock P.M.

IN WITNESS WHEREOF, the GILA COUNTY ABSTRACT COMPANY has caused this Certificate to be signed by its Secretary thereunto duly authorized and its Corporate Seal to be hereunto affixed this 16th day of February, A.D., 1955, at 4:45 o'clock P.M.

GILA COUNTY ABSTRACT COMPANY

SECRETARY.

MODIFICATION OF LEASE

Reference is made to that certain Lease Agreement between Sherwood B. Owens, as Lessor, and S.H. Woodruff, as Lessee, recorded in Docket 26, Page 169, on March 28th, 1955, in the Office of the County Recorder of Gila County, which lease covers certain mining claims in the El Capitan Mining District.

In order to amplify and clarify said lease, we have agreed as follows:

S. H. Woodruff, and his assignee, has not personal liability for the payment of money accruing under said Lease either before or after its termination surrender or forfeiture, by either party If there is a default in the terms of the Lease, Owens only has the right to forfeit the Lease, retaining any moneys previously received as liquidated damages and take back the mining claims. Woodruff is only required to work said mining claims with a minimum of 480 man shifts per calendar year, and not 40 man shifts per month as set forth in the Lease.

Work has commenced under said Lease and the lease is now in good standing and in full force and effect.

Any and all sums received by Woodruff or his assignee, from the United States Government, or any other source, which is paid as a hauling charge or rebate for the hauling of ore from said mining claims, shall not be due as a part of the royalty, and Owens shall have not part thereof.

Woodruff and his assignee may cause the royalty payable under said Lease to be paid directly to said parties by the United States Government, or any Corporation or Agency receiving the ore and mining payment therefor.

Woodruff agrees to pay $10,000.00 to Owens upon the execution of this Agreement. It being understood that $5,000.00 thereof is the April 10, 1955 payment to be made under said lease and that $5,000.00 thereof is a partial payment of the $12,000.00 due on May 10th, 1955 as set forth in Paragraph 1, sub paragraph C, of said lease. The balance of $7,000.00, due on May 10, 1955, shall be added to the regular June 10, 1955 payment of $6,000.00 and shall be paid on June 10, 1955, that being the next payment date. There shall be no personal liability, for any of said payments by Woodruff or his assignee, Interstate Uranium Co. or its partners if said lease is terminated, surrendered or forfeited either before or after such payments become due.

Woodruff's Assignee of said Lease and Mining Claim, may cause said mining claim to be patented in Owens name at the sole cost and expense of Woodruff's assignee.

Said Lease is not modified in any other respect, or condition, and is hereby ratified and confirmed.

Dated, March 27th, 1955.

Sherwood B. Owens

I Agree To The Foregoing Conditions:

S.H. Woodruff.

Acknowledged as signed before Isabel M. Lauder, Notary Public, County of Pima, State of Arizona, on March 27th, 1955. (Seal). Commission Expires: 5/15/56.

Filed and recorded on March 28th, 1955, at 4:25 P.M. in Docket 28, at Page 185 thereof, Records of Gila County, State of Arizona, Fee No. 203209.

GILA COUNTY RECORDER'S
COPY
NOT OFFICIAL
GLOBE, ARIZONA

ASSIGNMENT OF LEASE

Reference is hereby made to that certain Agreement of Lease dated February 19, 1955, wherein SUTWOOD R. OWENS, is Lessor and S. H. WOODRUFF is Lessee, which lease covers those certain unpatented mining claims in the El Capitan Mining District in Gila County, Arizona, location notices of which are recorded in the office of the County Recorder of Gila County, Arizona, in the dockets and at the pages set opposite their names as follows, to-wit:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 1 Amended	25	135
Zora No. 2	6	513
Zora No. 2 Amended	25	136
Zora No. 3	6	514
Zora No. 3 Amended	25	137
Zora No. 4	6	515
Zora No. 4 Amended	25	138
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 2 Amended	25	430
Sky No. 3	6	509
Sky No. 3 Amended	25	431
Sky No. 4	6	510
Sky No. 4 Amended	25	432
Sky No. 5	6	511
Sky No. 5 Amended	25	433
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended (1st)	13	243
Fran No. 4 Amended (2nd)	25	139
Fran No. 5	9	484
Fran No. 5 Amended	25	140
Peanuts.	13	239

which agreement of lease was recorded March 28th, 1955, in the office of the County Recorder of Gila County, in Docket 28th, Page 169.

In consideration of the sum of $10.00 and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned, S.H. Woodruff, does hereby sell, assign, transfer and convey all of his right, title, interest and estate in and to said Agreement of Lease and in and to said mining claims above described to INTERSTATE URANIUM CO., a Limited Partnership, in which Limited Partnership S.H. Woodruff and C. Orin Swain are the General Partners. Said Limited Partnership shall have any and all rights in and to said mining claims arising out of said Agreement of Lease which the undersigned may or might have had. By recording this instrument, said Limited Partnership, INTERSTATE URANIUM CO. assumes the terms and conditions of said Agreement of Lease and agrees to comply therewith.

IN WITNESS WHEREOF, the undersigned has affixed his name and cause this Assignment of Lease to be delivered this 28th day of March, 1955.

S. H. Woodruff.

Acknowledged as signed on March 28th, 1955 before Winnifred Griffin Notary Public in and for Pima County, State of Arizona. (Seal) Commission Expires: December 21st, 1957.

Filed and recorded On March 28th, 1955, at 4:25 P.M. in Docket 22, at Page 187, Fee No. 203210, Records of Gila County, State of Arizona.

AGREEMENT OF LEASE

THIS AGREEMENT OF LEASE made and entered into this 19th day of February, 1955, by and between Sherwood B. Owens, of Tucson, Arizona, hereinafter called the Lessor, and S. H. Woodruff, of Los Angeles, California, hereinafter called the Lessee:

WITNESSETH, that the Lessor for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, ketp and performed by the Lessee, has leased, let and demised, and by these presents does lease, let and demise unto the Lessee that certain group of fifteen unpatented mining claims in the El Capitan Mining District in Gila County, Arizona, location notices of which are recorded in the office of the County Recorder of Gila County, Arizona, in the Dockets and at the Pages set opposite their names, to-wit:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 1 Amended	25	135
Zora No. 2	6	513
Zora No. 2 Amended	25	136
Zora No. 3	6	514
Zora No. 3 Amended	25	137
Zora No. 4	6	515
Zora No. 4 Amended	25	138
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 2 Amended	25	430
Sky No. 3	6	509
Sky No. 3 Amended	25	431
Sky No. 4	6	510
Sky No. 4 Amended	25	432
Sky No. 5	6	511
Sky No. 5 Amended	25	433
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended (1st)	13	243
Fran No. 4 Amended (2nd)	25	139
Fran No. 5	9	484
Fran No. 5 Amended	25	140
Peanuts	13	239

Consideration of a total royalty of THREE HUNDRED FIFTY THOUSAND ($350,000.00) DOLLARS, payable in installments. **************.

Royalties payable to: 1. George K. Anglus, of Miami, Arizona.
2. D. M. Zenovich, of Globe, Arizona.
**************.

Sherwood B. Owens, Lessor.
S.H. Woodruff, Lessee.

ACKNOWLEDGED AS SIGNED by Sherwood B. Owens, on February 19th, 1955 before Frank J. Barry Jr. Notary Public, County of Pima, State of Arizona. (Seal) Commission Expires: 5/3/55/

ACKNOWLEDGED as Signed by S.H. Woodruff on March 27th, 1955, before Mabel M. Lauder, Notary Public, County of Pima, State of Arizona. (Seal) Commission Expires: 5/15/56.

Filed and recorded on March 28th, 1955 at 4:25 P.M. in Docket 28th, Page 169, Fee No. 203208, Records of Gila County, Arizona.

COPPER ROAD RANCH COMPANY
ARTICLES
OF INCORPORATION

AGREEMENT "Exhibit "A".

This Agreement, made and entered into this 29th day of January, 1955, by and between GEORGE K. ANGIUS of Miami, Arizona, and D. N. ZENOVICH, of Globe, Arizona, hereinafter called SELLERS, and SHERWOOD B. OWENS of Tucson, Arizona, as BUYER herein,

WITNESSETH:

1. OPTION TO PURCHASE:

BUYER, for and in consideration of the sum of Ten Dollars cash in hand paid, receipt of which is hereby acknowledged, and the covenants herein set forth, is hereby granted by SELLERS the exclusive option to purchase, and the right to take possession of, to mine and to take ore from, on the terms hereinafter set forth, that certain group of fifteen unpatented mining claims in the El Capitan Mining District, in Gila County, Arizona, location notices of which are recorded in the office of the County Recorder of Gila County, Arizona, in the Dockets and at the Pages set opposite their names, to-wit:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 2	6	513
Zora No. 3	6	514
Zora No. 4	6	515
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 3	6	509
Sky No. 4	6	510
Sky No. 5	6	511
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended	13	243
Fran No. 5	9	484
Peanuts	13	239

Purchase price TWO HUNDRED FIFTY THOUSAND ($250,000.00) Dollars, to be paid in royalty payments, with Cash Payment of $10,000.00 on or before June 15, 1955, **********.

GEORGE K. ANGIUS
D. N. ZENOVICH (Sellers).

Sherwood B. Owens. (Buyer).

Acknowledged as signed on January 29th, 1955, before George K. Dea, Notary Public, Gila County, State of Arizona. (Seal) Comm. Expires: Jan. 14, 1957.

Filed and recorded on March 28th, 1955 at 4:25 P.M. in Docket 28, Page 176, Fee No. 203208, Records of Gila County, Arizona.

AMENDMENT TO AGREEMENT

This Amendment to Agreement made and entered into this 16th day of February, 1955, by and between George K. Angius of Miami, Arizona, and D. N. Zenovich, of Globe, Arizona, hereinafter called SELLERS, and SHERWOOD B. OWENS, of Tucson, Arizona, as BUYER herein.

WITNESSETH: that

WHEREAS, the parties hereto have entered into an Agreement on the 28th day of January, 1955, which said Agreement is recorded in the office of the County Recorder of Gila County, State of Arizona, in Docket 25 at page 37 thereof, and

WHEREAS, the property described in said Agreement is incompletely or defectively described,

NOW, THEREFORE, it is agreed as follows:

That said descriptions be amended to read as follows:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 1 Amended	25	135
Zora No. 2	6	513
Zora No. 2 Amended	25	136
Zora No. 3	6	514
Zora No. 3 Amended	25	137
Zora No. 4	6	515
Zora No. 4 Amended	25	138
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 2 Amended		
Sky No. 3	6	509
Sky No. 3 Amended		
Sky No. 4	6	510
Sky No. 4 Amended		
Sky No. 5	6	511
Sky No. 5 Amended		
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended (1st)	13	243
Fran No. 4 Amended (2nd)	25	139
Fran No. 5	9	484
Fran No. 5 Amended	25	140
Peanuts	13	239

It is further stipulated and agreed that the intention of the parties in said Agreement of January 28th, 1955, was to transfer the property above described and that this amendment is for the purpose of expressing said intention; it is further stipulated and agreed that the consideration for this amendment is the consideration supporting said Agreement, and $1.

This amendment has been requested by the Buyer in order to

transfer, according to his agreement with S.H. Woodruff of Los Angeles, California, the property herein described.

George K. Anglus
D. N. Zenovich (Sellers.

Sherwood B. Owens. (Buyer).

Acknowledged as signed on February 16th, 1955 by George K. Anglus and D.N. Zenovich, before George K. Dea, Notary Public, County of Gila, State of Arizona. (Seal). Commission Expires: Jan. 14, 1957.

Acknowledged as signed by Sherwood B. Owens on February 17th, 1955, before Frank J. Barry Jr., Notary Public, County of Pima, State of Arizona. (Seal) Commission Expires: 5/3/55.

Filed and recorded on March 28th, 1955, at 4:25 P.M. in Docket 28, Page 182, Fee No. 203208, Records of Gila County, State of Arizona.

CERTIFICATE OF LIMITED
PARTNERSHIP OF
INTERSTATE URANIUM CO.

We, the undersigned subscribers hereto, desiring to form and having formed a Limited Partnership pursuant to the laws of the State of Arizona, do certify as follows:

I.

The name of the firm under which said Limited Partnership is to be conducted is: INTERSTATE URANIUM CO.

II.

The purpose and character of the business to be conducted by said Limited Partnership is the acquiring of mining claims and mining property and producing, saving, refining, smelting and recovering valuable ores and products therefrom.

III.

The location of the principal place of business of this Limited Partnership is 1150 Prince Street, Tucson, Arizona.

IV.

The general partners are: S. F. WOODRUFF, C. ORIN SWAIN.

The Limited Partners are: W. J. WITTRY, LEROY R. HAYNES, HAMILTON G. GRADY, JOSEPH W. HERRELL, LENA S. GATCHELL, GLADYS M. BARNETT, EDNA RUDDER HILL, MARTHA E. RUDDER, LEWIS A. FISHER, ROY G. DECKER, R. WESLEY SARNER, EARL GILMORE, HENRY W. STONEBRAKER, L. G. MARSHALL, CALVIN B. CHAMBERLAIN, BERT M. CHRISTENSEN, EUNICE WILKS, THOMAS W. BEWLEY, H. L. KNOOP, WILLIAM M. LASSLEBEN, JR.

V.

The term of this Limited partnership shall be twenty (20) years.

********************/.

Signed by all above General and Limited Partners, on March 24, 1955.

Acknowledged as signed on March 25th, 1955, before Naomi Dodge, Notary Public in and for the County of Los Angeles, State of California. (Seal) Commission Expires: May 25, 1957.

Acknowledged as signed on March 26th, 1955, before Shirley Deutsch, Notary Public, County of Pima, State of Arizona. (Seal) Commission Expires: 8/13/58.

Filed and recorded on March 28th, at 4:25 P.M. in Docket 28th, Page 189, Fee No. 203211, Records of Gila County, State of Arizona.

STATE OF ARIZONA)
) SS:
COUNTY OF GILA)

The GILA COUNTY ABSTRACT COMPANY hereby certifies that the foregoing SIX (6) entries, make, constitute, form and complete a full, true and correct Abstract of Title, to Lode Mining Claims known as the ZONA: SKY and FRANK GROUPS of Mining Claims as described on the caption hereof, situate, lying and being in the El Capitan Mining District, Gila County, State of Arizona, according to the records in the offices of the County Recorder, County Tax Collector and Clerk of Superior Court, all in and for the county of Gila and State of Arizona, which show said entries to be true on this the 29th day of March, A.D., 1955, at 2:15 o'clock P.M. SUBSEQUENT, HOWEVER, to the 16th day of February, A.D, 1955, at 4:45 o'clock P.M.

IN WITNESS WHEREOF, the Gila County Abstract Company has caused this Certificate to be signed by its Secretary thereunto duly authorized and its Corporate Seal to be hereunto affixed this 29th day of March, A.D., 1955, at 2:15 o'clock P.M.

GILA COUNTY ABSTRACT COMPANY

Secretary.

700

FILE COPY
Surname:
Ching
Ellis
Nelson
Gulson
Selfridge
Kjelman

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

JAN 16 1956

Interstate Uranium Company, a Partnership
9317 Colima Road
Whittier, California

Re: Docket No. DMEA-3923 (Uranium)
Zora, Sky, Fran, and Peanuts Group
Gila County, Arizona

Gentlemen:

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 minable 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.

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

Sincerely yours,

C. O. Mittendorf

Administrator

MChing/izm 1-11-56
cc to: Docket
Code 700
Admr.'s Reading File
Operating Committee
Mr. Ching
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.C.h.

700

FILE COPY

Surname:
Ching
Nelson
Selmdge
Johnson

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

JAN 16 1956

Hon. Carl Hayden
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-3923 (Uranium)
Interstate Uranium Company
Zora, Sky, Fran and Peanuts Group
Gila County, Arizona

My dear Senator Hayden:

Reference is made to your letter of January 10, regarding the Interstate Uranium Company's application for financial assistance on a proposed uranium project in Gila County, Arizona.

We have recently completed an investigation and examination of this property and have concluded that the probability of disclosing minable ore reserves by the proposed exploration project is not sufficiently promising to justify Government participation. Consequently, we are today advising the Interstate Uranium Company that its application for exploration assistance is denied.

We regret that we are unable to take favorable action on this proposed project.

Sincerely yours,

C. H. Mittendorf

Administrator

MChing/izm 1-11-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
DMEA Field Team, Region III (2)

Docket Copy 700

Ching Ellis

January 11, 1956

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-3923

Commodity: Uranium

Applicant: Interstate Uranium Company, a Partnership
9317 Colima Road
Whittier, California

Property: 15 lode mining claims; Sky Nos. 1 - 5, Zora Nos. 1 - 4, Peanuts, and Fran Nos. 1 - 5, in Sections 2 and 3, T. 3 S., R. 15 E., G. & S. R. B. & M., Gila County, Arizona. Applicant's property rights are held through an Assignment of Lease dated March 20, 1955 from S. H. Woodruff.

Date of Application: June 15, 1955

Amount of Application: $45,000.00

Work Proposed: Explore a mineralized shale bed in the Dripping Springs Quartzite formation by means of three adits totaling 500 feet, and 3,000 feet of diamond drill holes.

Estimated Cost:

Independent Contracts

500 feet drifting @ $30/ft.	$15,000.00	
3,000 ft. diamond drilling @ $7/ft.	21,000.00	
All other costs	9,000.00	
Total Estimated Cost		$45,000.00
Government Participation @ 75%		$33,750.00

Field Team Report: December, 1955 - T. M. Romslo, USBM - Leonid Bryner, USGS:

Observed anomalous radioactivity is confined to an approximately 3-foot thick shaley bed at the base of the Upper Member of the pre-Cambrian Dripping Spring Quartizite. In a 30-foot-long trench representing the main workings, uranium occurs as torbernite, mainly along partings of the shaley bed. Distribution of the torbernite is erratic. Samples obtained from the deposit by previous examiners and by the DMEA examining team show that the highest concentrations are confined to discontinuous zones about 1-foot thick. The best material averaged 0.1% U_3O_8. Reserves of such material probably could be measured in tens of tons, or at most, in hundreds of tons.

The down-dip extension of the radioactive horizon has been tested by 7 diamond drill holes, 3 of which showed weak radioactivity at the projected horizon. Two other holes showed weak radioactivity, but in one case it was above the projected horizon, and in the other case, below. The remaining 2 holes showed no anomalous radioactivity. At depth the width of the radioactive zone narrows to about 1 inch.

The property was previously examined by personnel of the AEC and USGS. M. L. Reyner, Chief, Phoenix Sub-Office of the AEC believes that the property does not warrant further exploration work. H. C. Granger, USGS, regards the deposits as sub-marginal and, for the most part, not economically minable. The property was also examined by representatives of Phelps Dodge Corporation and Chapman and Wood without encouraging results.

Denial of the application is recommended.

Commodity Group Comments:

Bureau of Mines - James Paone - January 3, 1956:

Discussed Report of Examination with AEC representative. Concurs in the recommendation for denial.

Geological Survey - N. E. Nelson - January 9, 1956:

Concurs with the recommendation of the Field Team that the application be denied.

Rare and Miscellaneous Metals Division - Michael Ching - January 11, 1956:

The property appears to have been rather thoroughly appraised by personnel of private companies as well as of the Government, without encouraging results. The work completed to date has exposed the ore horizon along the outcrop in two places and the seven drill holes have tested the same horizon back from the rim. The results do not encourage the belief that further work will expose significant ore bodies.

Conclusions and Recommendations:

The property has a very limited potential. It is recommended that the application be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

1-11-56 hgm

700

CARL HAYDEN, ARIZ., CHAIRMAN

RICHARD B. RUSSELL, GA.
DENNIS CHAVEZ, N. MEX.
ALLEN J. ELLENDER, LA.
LISTER HILL, ALA.
HARLEY M. KILGORE, W. VA.
JOHN L. MCCLELLAN, ARK.
A. WILLIS ROBERTSON, VA.
WARREN G. MAGNUSON, WASH.
SPESSARD L. HOLLAND, FLA.
JOHN STENNIS, MISS.
EARLE C. CLEMENTS, KY.

STYLES BRIDGES, N. H.
LEVERETT SALTONSTALL, MASS.
MILTON R. YOUNG, N. DAK.
WILLIAM F. KNOWLAND, CALIF.
EDWARD J. THYE, MINN.
JOSEPH R. MCCARTHY, WIS.
KARL E. MUNDT, S. DAK.
MARGARET CHASE SMITH, MAINE
HENRY DWORSHAK, IDAHO
EVERETT MCKINLEY DIRKSEN, ILL.
CHARLES E. POTTER, MICH.

EVERARD H. SMITH, CLERK
THOMAS J. SCOTT, ASST. CLERK

United States Senate

COMMITTEE ON APPROPRIATIONS

January 10, 1956

RECEIVED
JAN 11 1956

Mr. C. O. Mittendorf
Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

I am advised that the Interstate Uranium Company has submitted to the Defense Minerals Exploration Administration an application for financial assistance on a uranium project in Gila County, Arizona. Apparently this application was assigned DMEA-3923.

I will appreciate your advising me concerning its status at this time.

Yours very sincerely,

Carl Hayden

U. S. S.

IN REPLY REFER TO:

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

RECEIVED
JAN 10 1956

January 9, 1956

Re: DMEA 3923
Interstate Uranium Corp.
Sky, Zora, Fran, and
Peanuts Claims
Gila County, Arizona
$45,000 - Uranium

Memorandum

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

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

Subject: Review of Field Team report.

The applicant requested aid on a proposed exploratory work program consisting of 3,000 feet of diamond drilling and 500 feet of drifting.

The applicant constructed roads, put in a few small trenches and drilled 7 diamond drill holes. The work was done on a shaley bed showing radioactivity about 3 feet thick at the base of the upper member of the pre-Cambrian Dripping Spring quartzite formation, 300 to 700 feet west of an outcrop of diabase. Silver, copper, and vanadium are associated metals. The uranium occurs as torbernite along partings of the shaley bed which shows in two cuts 80 feet apart. The 7 diamond drill holes tested the extension down dip of the shaley beds. 3 holes cut the probable extension. They showed, No. 3, 0.03% U_3O_8, No. 4, 0.10% and No. 5, 0.17%. The thicknesses are not recorded. 2 holes cut 2 weakly radioactive horizons, one below and one above the probable extension of the main bed. 2 holes showed no radiometric zones.

At the main open cut 1-foot thick discontinuous zones show about 0.10% U_3O_8. A sample across 6 feet assayed 0.05% U_3O_8 (sample by Phelps Dodge), and a nearby 14-inch sample (B of M) assayed 0.07% eU_3O_8.

The 7 holes drilled by the applicant are back from the rim from 50 to 700 feet. The hole 50 feet back, No. 5, probed 1.2 Mr/hr., the hole 700 feet back, No. 7, less than 0.2 Mr/hr. The holes between showed in-between values.

The examiners infer that the two farthest back holes, 6 and 7, both low grade (less than 0.2% Mr/hr.) indicate a weakening mineralization

down dip from the outcrop and that interpretation appears justified.

The uranium-bearing bed outcrops for at least 400 feet. Hole No. 4 is 70 feet from the outcrop. A zone 400 feet long and 70 feet wide would contain over 2,000 tons per foot of thickness.

No observations of the shaley zone nearer the diabase are recorded. Presumedly, if present and exposed, it is not radioactive.

Granger's conclusion, quoted by Bryner is accepted as valid. "Locally a concentration of ore grade material may exist in these secondary bodies, but for the most part they are not economically minable."

I concur with the recommendation of the Field Team that the application be denied.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
JAN 10 1956

January 9, 1956

No: [redacted] 3983
Interstate Uranium Corp.
Sky, Zoz, Fran, and
Fourth Claims
Gila County, Arizona
$45,000 - Uranium

Memorandum

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

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

Subject: Review of Field Team report.

The applicant requested aid on a proposed exploratory work program consisting of 3,000 feet of diamond drilling and 300 feet of drifting.

The applicant constructed roads, put in a few small trenches and drilled 7 diamond drill holes. The work was done on a shaley bed showing radioactivity about 3 feet thick at the base of the upper member of the pre-Cambrian Brynging Spring quartzite formation, 300 to 700 feet west of an outcrop of diabase. Silver, copper, and vanadium are associated metals. The uranium occurs as torbernite along partings of the shaley bed which shows in two cuts 80 feet apart. The 7 diamond drill holes tested the extension down dip of the shaley beds. 3 holes cut the probable extension. They showed, No. 3, 0.03% U_3O_8, No. 4, 0.10% and No. 5, 0.17%. The thicknesses are not recorded. 2 holes cut 2 weakly radioactive horizons, one below and one above the probable extension of the main bed. 2 holes showed no radioactric zones.

At the main open cut 1-foot thick discontinuous zones show about 0.10% U_3O_8. A sample across 6 feet assayed 0.05% U_3O_8 (sample by Phelps Dodge); and a nearby 14-inch sample (3 of 4) assayed 0.07% U_3O_8.

The 7 holes drilled by the applicant are back from the rim from 50 to 700 feet. The hole 50 feet back, No. 5, probed 1.2 Mr/hr., the hole 700 feet back, No. 7, less than 0.2 Mr/hr. The holes between showed in-between values.

The examiners infer that the two farthest back holes, 6 and 7, both low grade (less than 0.[illegible] Mr/hr.) indicate a weakening mineralization

down dip from the outcrop and that interpretation appears justified.

The uranium-bearing bed outcrops for at least 400 feet. Hole No. 4 is 70 feet from the outcrop. A zone 400 feet long and 70 feet wide would contain over 2,000 tons per foot of thickness.

No observations of the shale zone nearer the distance are recorded. Presumably, if present and exposed, it is not radioactive.

Granger's conclusion, quoted by Bryner is accepted as valid. "Locally a concentration of ore grade material may exist in these secondary bodies, but for the most part they are not economically minable."

I concur with the recommendation of the Field Team that the application be denied.

N. E. Nelson

N. E. Nelson

NENelson:jeh
0-1/9/56
cc: Director's reading 4212
Branch reading 4212
RMMA (3)
Docket file
J. E. Crawford, 3641 Int.
J. O. Hosted, 3710 GS

IN REPLY REFER TO:

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

RECEIVED
JAN 10 1956

January 9, 1956

Re: DMEA 3983
Interstate Uranium Corp.
Sky, Zova, Fran, and
Fourth Claims
Gila County, Arizona
$45,000 - Uranium

Memorandum

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

From: E. E. Eulen, U. S. Geological Survey

Subject: Review of Field Team report.

The applicant requested aid on a proposed exploratory work program consisting of 3,000 feet of diamond drilling and 500 feet of drifting.

The applicant constructed roads, put in a few small trenches and drilled 7 diamond drill holes. The work was done on a shaley bed showing radioactivity about 3 feet thick at the base of the upper member of the pre-Cambrian Bringing Spring quartzite formation, 300 to 700 feet west of an outcrop of diabase. Silver, copper, and vanadium are associated metals. The uranium occurs as torbernite along partings of the shaley bed which shows in two cuts 80 feet apart. The 7 diamond drill holes tested the extension down dip of the shaley beds. 3 holes cut the probable extension. They showed, No. 3, 0.03% U_3O_8, No. 4, 0.10% and No. 5, 0.17%. The thicknesses are not recorded. 2 holes cut 2 weakly radioactive horizons, one below and one above the probable extension of the main bed. 2 holes showed no radioactric zones.

At the main open cut 1-foot thick discontinuous zones show about 0.10% U_3O_8. A sample across 6 feet assayed 0.09% U_3O_8 (sample by Philips Dodge), and a nearby 18-inch sample (2 of 2) assayed 0.07% U_3O_8.

The 7 holes drilled by the applicant are back from the rim from 50 to 700 feet. The hole 50 feet back, No. 5, probed 1.2 Mr/hr., the hole 700 feet back, No. 7, less than 0.2 Mr/hr. The holes between showed in-between values.

The examiners infer that the two furthest back holes, 6 and 7, both low grade (less than 0.5 Mr/hr.) indicate a weakening mineralization

down dip from the outcrop and that interpretation appears justified.

The uranium-bearing bed outcrops for at least 400 feet. Hole No. 4 is 70 feet from the outcrop. A mass 400 feet long and 70 feet wide would contain over 2,000 tons per foot of thickness.

No observations of the shaley mass nearer the diabase are recorded. Presumably, if present and exposed, it is not reminerative.

Granger's conclusion, quoted by Bryner is accepted as valid. "Locally a concentration of ore grade material may exist in these secondary bodies, but for the most part they are not economically minable."

I concur with the recommendation of the Field Team that the application be denied.

N. E. Nelson

N. E. Nelson

NENelson:jah
6-1/9/56
cc: Director's reading 4212
Branch reading 4212
DMRA (3)
Docket file
J. E. Crawford, 3641 Int.
J. O. Bostad, 3210 GS

IN REPLY REFER TO:

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

RECEIVED
JAN 10 1956

January 9, 1956

Re: DMEA 3081
Intermittent Uranium Corp.
Sky, Zora, Fran, and
Pennsylvania Claims
Gila County, Arizona
$45,000 - Uranium

Memorandum

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

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

Subject: Review of Field Team report.

The applicant requested aid on a proposed exploratory work program consisting of 3,000 feet of diamond drilling and 300 feet of drifting.

The applicant constructed roads, put in a few small trenches and drilled 7 diamond drill holes. The work was done on a shaley bed showing radioactivity about 3 feet thick at the base of the upper member of the pre-Cambrian Bridging Spring quartzite formation, 300 to 700 feet west of an outcrop of diabase. Silver, copper, and vanadium are associated metals. The uranium occurs as torbernite along partings of the shaley bed which shows in two cuts 50 feet apart. The 7 diamond drill holes tested the extension down dip of the shaley beds. 3 holes cut the probable extension. They showed, No. 3, 0.093% U_3O_8, No. 4, 0.10% and No. 5, 0.17%. The thicknesses are not reported. 2 holes cut 2 weakly radioactive horizons, one below and one above the probable extension of the main bed. 2 holes showed no radioactivity zones.

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The 7 holes drilled by the applicant are back from the rim from 50 to 700 feet. The hole 50 feet back, No. 5, probed 1.8 Mr/hr., the hole 700 feet back, No. 7, less than 0.2 Mr/hr. The holes between showed in-between values.

The examiners infer that the two farthest back holes, 6 and 7, both low grade (less than 0.5 Mr/hr.) indicate a weakening mineralization

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The uranium-bearing bed outcrops for at least 400 feet. Hole No. 4 is 70 feet from the outcrop. A zone 400 feet long and 70 feet wide would contain over 2,000 tons per foot of thickness.

No observations of the shaley zone nearer the diabase are recorded. Presumably, if present and exposed, it is not radioactive.

Granger's conclusion, quoted by Bryner is accepted as valid. "Locally a concentration of ore grade material may exist in these secondary bodies, but for the most part they are not economically sizable."

I concur with the recommendation of the Field Team that the application be denied.

W. E. Wilson

W. E. Wilson

WEWilson:jah
S-1/9/56
cc: Director's reading 4212
Branch reading 4212
DMEA (3)
Docket file
J. K. Crawford, 3641 Int.
J. O. Morton, 3610 GS

1-4-56 dgm

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

January 3, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 3923, Interstate Uranium Corporation, Sky, Zora, Fran, and Peanuts Claims, Gila County, Arizona

I have reviewed the report of examination of Interstate Uranium Corporation, DMEA Docket 3923, dated December 21 and received in this office December 30. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The Interstate Uranium Corporation requested DMEA participation in a uranium exploration program on a group of claims in Gila County, Arizona. The proposed project included 3,000 feet of diamond drilling and 500 feet of drifting at an estimated total cost of $45,000.00.

The subject claims were examined for DMEA on November 17 and 18, 1955. The Field Team concluded that the property contains no measurable reserves of uranium ore and the possibility of discovering significant reserves of uranium ore is unfavorable. The Field Team recommends denial of the requested aid.

We concur in the recommendation of the Field Team that the application be denied.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

James Paone
James Paone

RECEIVED
JAN 4 1956

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

January 3, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 3923, Interstate Uranium Corporation, Sky, Zora, Fran, and Peanuts Claims, Gila County, Arizona

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We concur in the recommendation of the Field Team that the application be denied.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

James Paone

RECEIVED
JAN 4 1956

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

January 3, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

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The Interstate Uranium Corporation requested DMEA participation in a uranium exploration program on a group of claims in Gila County, Arizona. The proposed project included 3,000 feet of diamond drilling and 500 feet of drifting at an estimated total cost of $45,000.00.

The subject claims were examined for DMEA on November 17 and 18, 1955. The Field Team concluded that the property contains no measurable reserves of uranium ore and the possibility of discovering significant reserves of uranium ore is unfavorable. The Field Team recommends denial of the requested aid.

We concur in the recommendation of the Field Team that the application be denied.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

James Paone

RECEIVED
JAN 4 1956

1/3/56 gla

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

RECEIVED
DEC 23 1955

December 21, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Report of Examination, Docket DMEA 3923 (Uranium), Interstate Uranium Corporation, Sky, Zora, Fran, and Peanuts Claims, Gila County, Arizona

Enclosed are the original and three copies of the report pertaining to the subject application.

The field examiners concluded that additional exploratory work would not discover a significant amount of uranium ore. They recommend that the application be denied, and we concur in this recommendation.

E. N. Harshman

E. N. Harshman
Acting Executive Officer, DMEA
Field Team, Region III

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55
(date)

RECEIVED
DEC 8 3 1955
BUREAU OF MINES
Denver, Colorado

Box 4097
Tucson 5, Arizona

December 14, 1955

Memorandum

To : W. M. Traver, Executive Officer, DMEA Field Team, Region III

From : Superintendent, Southwest Experiment Station

Subject : Field Examination Report, Docket DMEA-3923, Interstate Uranium Corp.'s Sky, Zero, Fran, and Peanuts Uranium Claims, Gila County, Ariz.

TRANSMITTE
DEC 21 195

Enclosed are original and 10 copies of the section on Summary, Conclusions and Recommendations by T. M. Rensle of the Bureau of Mines and Leonid Bryner of the Geological Survey, and the section on Engineering by Rensle for the above report. A separate section on Geology will be submitted by the Geological Survey.

The DMEA examiners believe that additional exploratory work at this deposit would not discover any significant amount of new ore, so recommend that the application for Government exploration assistance be denied. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. M. Traver (10)
J. N. Falck
DMEA-3923
DF

WRStorms:frj

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55
(date)

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DEC 23 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

TRANSMITTED
DEC 21 1955

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-3923, Interstate Uranium Corporation

Sky, Zora, Fran and Peanuts Uranium Claims

Gila County, Arizona

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

Leonid Bryner, Geologist
U. S. Geological Survey

December 1955

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55
(date)

RECEIVED
DEC 23 1955

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

T. M. ROMSLO[1] AND LEONID BRYNER[2]

The Sky, Zora, Fran and Peanuts group of claims in Gila County, Ariz. was examined by the Defense Minerals Exploration Administration in connection with an application for Governmental aid by the Interstate Uranium Corp. The application, docketed as DMEA 3923, requested aid in exploration for uranium. This work involved diamond drilling and drifting at an estimated cost of $45,000.00.

Uranium was discovered on the property by George K. Angius early in 1954. Since then the property has been made accessible by bulldozer roads and the mineralized zones have been explored by a few small trenches and 7 diamond drill holes. At present, the property is idle. During the period of exploratory work, the property was examined by geologists of the Atomic Energy Commission and the United States Geological Survey, by representatives of the Phelps Dodge Corp., and by Chapman and Wood, Consulting Engineers of Albuquerque, N. Mex.

Observed anomalous radioactivity is confined to an approximately 3-foot thick shaley bed at the base of the Upper Member of the pre-Cambrian Dripping Spring quartzite. At the main workings, a 30-foot-long trench, uranium occurs as torbernite mainly along partings of the shaley bed. Distribution of the

1/ Mining Engineer, U. S. Bureau of Mines
2/ Geologist, U. S. Geological Survey

torbernite is erratic. Radioactivity at the same horizon is exposed in another open-cut at about 80 feet west of the main workings. The down-dip extension of these zones has been tested by 7 diamond drill holes with the following results. Weak radiometric zones of 3 of the holes correspond to the radiometric zone at the surface workings. In 2 of the other holes a weak radiometric zone was detected, in one case above the projected horizon and in the other at a lower horizon. The remaining 2 holes showed no zones of anomalous radioactivity.

Samples obtained from the deposit by previous examiners and by the DMEA examining team show that the highest concentrations of uranium are confined to discontinuous zones about 1 foot thick at the shale horizon mentioned above. Not enough is known about the distribution of uranium and about ore controls to estimate indicated and inferred reserves with any reliability. The best material, averaging 0.1 percent U_3O_8, probably represents reserves on the order of tens, or at the most, hundreds of tons.

Denial of the requested aid in exploration of the property is recommended because of the poor possibilities of discovering significant reserves of uranium ore.

RECEIVED
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DMEA-3923, INTERSTATE URANIUM CORPORATION
SKY, ZORA, FRAN AND PEANUTS, URANIUM CLAIMS
GILA COUNTY, ARIZONA

TRANSMITTED
DEC 21 1955

Engineering Report

By T. M. Romslo
Mining Engineer
U. S. Bureau of Mines

December 1955

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55
(Date)

DMEA-3923, INTERSTATE URANIUM CORPORATION
SKY, ZORA, FRAN, AND PEANUTS URANIUM CLAIMS
GILA COUNTY, ARIZONA

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Engineering report — Page

Introduction ---------- 1
Location and accessibility ---------- 2
Topography, physical features and climate ---------- 2
History and production ---------- 2
Extent and ownership of property ---------- 3
Description of the deposits ---------- 3
Ore reserves ---------- 4
Conclusions ---------- 5
Recommendations ---------- 5

ILLUSTRATIONS

Figure — Following page

1 Location map ---------- 2
2 Claim map ---------- 3
3 Geologic and assay map ---------- (See geologic report)

Plate No.

1 Section of Apache group ---------- (See geologic report)

INTRODUCTION

The Defense Minerals Exploration Administration received an application from the Interstate Uranium Corp. for Governmental aid in exploration for uranium on its group of lode mining claims in Gila County, Ariz. The application was received July 22, 1955. It was docketed as DMEA-3923, reviewed by the Operating Committee and referred to the Field Team of Region III for a field examination and report.

The proposed work included 3,000 feet of diamond drilling and 500 feet of drifting at an estimated total project cost of $45,000.00.

The group of claims was examined for the Defense Minerals Exploration Administration by L. Bryner, geologist, U. S. Geological Survey, and T. M. Romslo, mining engineer, U. S. Bureau of Mines. George K. Angius, representative for the applicant and one of the owners of the property, accompanied Bryner on November 17, 1955, and was present on the following day when the examining team completed its field investigations.

The property had previously been examined by geologists for both the Atomic Energy Commission and the United States Geological Survey. Their findings were made available to the examining team for the Defense Minerals Exploration Administration.

LOCATION AND ACCESSIBILITY

The claims of the proposed explorations are about 14 air-miles south of Globe, Ariz. in secs. 2 and 3, T. 3 S., R. 15 E., Gila County, Ariz. (figure 1). They are accessible from Globe by traveling 5 miles east on U. S. Highway 70, thence 14.8 miles south on graded State Highway 77, and thence 0.9 mile easterly on an access mine road to the main exploratory trench on Sky No. 5 claim.

TOPOGRAPHY, PHYSICAL FEATURES AND CLIMATE

The Zora, Sky, Fran and Peanut claims are at an average altitude of about 4,500 feet on the western slope of the northwesterly trending Mescal Mountains. The area is moderately rugged. Drainage is southwesterly via a branch of El Capitan Canyon.

Vegetation consists mainly of forage grasses and a light growth of shrubs on the hillsides, and scattered groves of oak trees in canyons.

Annual precipitation is about 15 inches. It occurs mainly as heavy summer rain storms, and light rain and snowfalls in the winter.

Summers are hot and winters are mild.

HISTORY AND PRODUCTION

Uranium mineralization on the Zora, Sky, Fran and Peanut claims was discovered by George K. Angius, Globe, Ariz. during the early part of 1954. In April 1954, the claims were recorded and

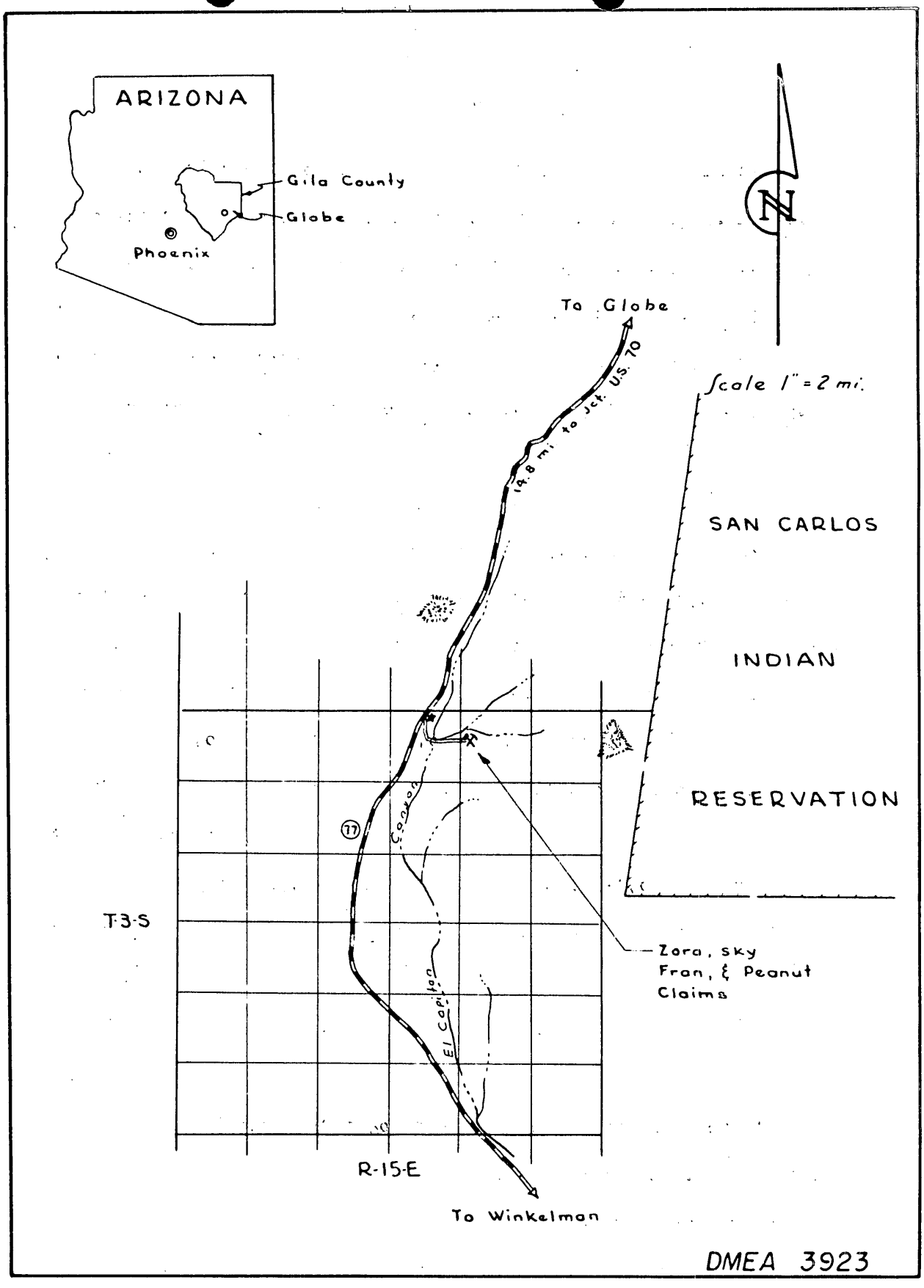

FIG.-1- LOCATION MAP, ZORA, SKY, FRAN, PEANUT CLAIMS

GILA COUNTY, ARIZONA

exploratory work was started and carried out intermittently until April 1955. After the construction of bulldozer roads, a few small trenches were excavated and 7 diamond drill holes were put down.

According to Mr. Angius, a representative of the Phelps Dodge Corp., and Chapman and Wood, Consulting Engineers of Albuquerque, N. Mex., examined and sampled the property during the period of exploratory work.

There has been no production of uranium ores or other minerals.

EXTENT AND OWNERSHIP OF PROPERTY

The property comprises a group of 15 lode mining claims, namely Zora Nos. 1 to 4, Sky Nos. 1 to 5, Fran Nos. 1 to 5, and the Peanuts (figure 2). It is owned by George K. Angius, Miami, Ariz. and D. N. Zenovich, Globe, Ariz.

The Interstate Uranium Corp., 1150 Prince Street, Tucson, Ariz. holds the above described property under a lease and option agreement with Sherwood B. Owens of Tucson. Owens holds the property under a lease and option agreement with the owners.

DESCRIPTION OF DEPOSITS

Observed anomalous radioactivity is confined to a shaley bed of about 3 feet thickness at the base of the Upper Member of the pre-Cambrian Dripping Spring quartzite formation. In the vicinity of the main workings (figure 3) the formation strikes N. 75 W. and dips 20° south.

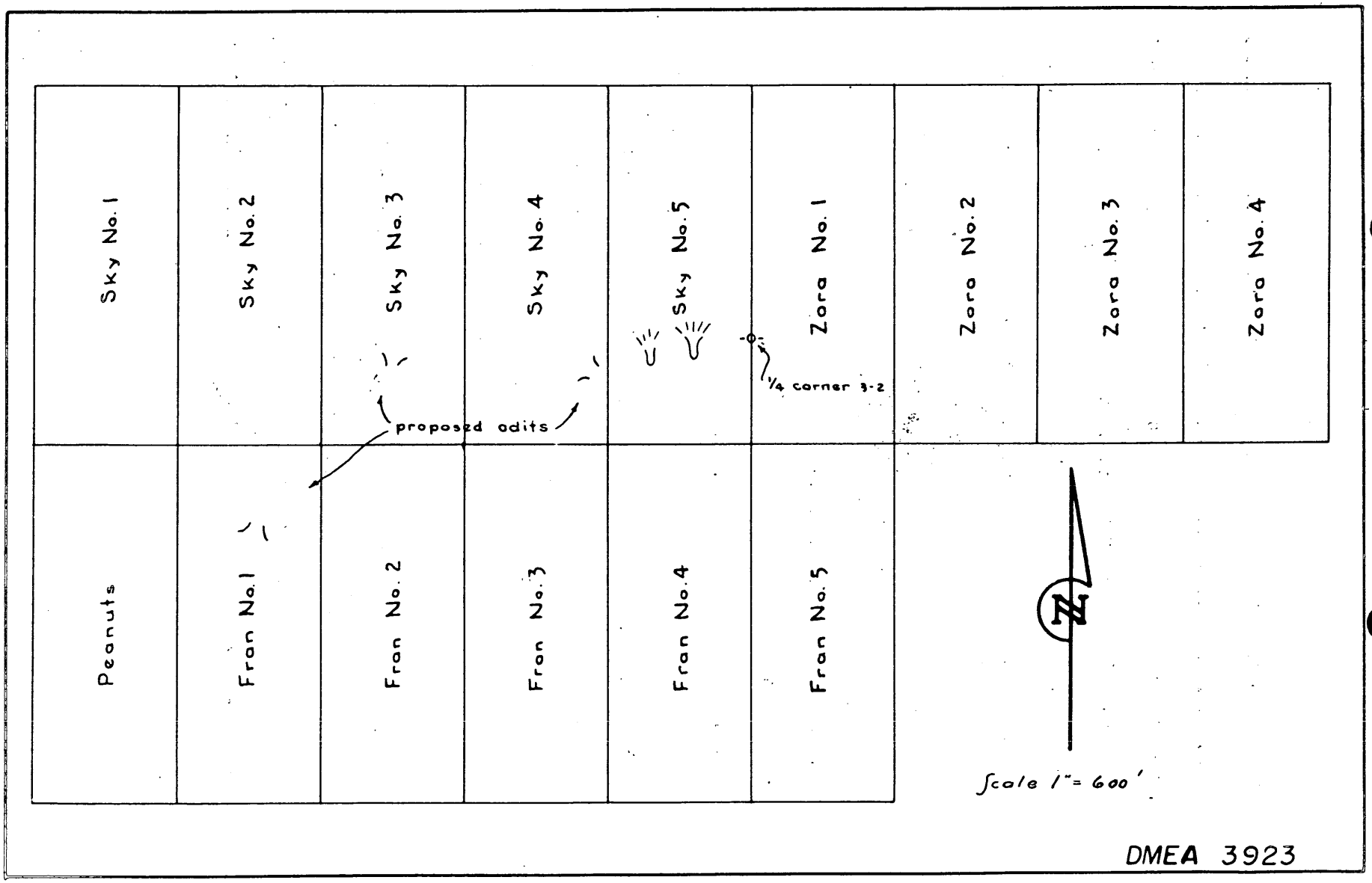

FIG.-2-CLAIM MAP, INTERSTATE URANIUM CORP.
GILA COUNTY, ARIZONA

At the main workings, an open cut about 30 feet long, uranium occurs as torbernite mainly along partings of the shaly bed. The distribution of torbernite is erratic. A similar radioactive zone is exposed in another open cut at about 80 feet west of the main workings.

The 7 diamond drill holes provided data on the downdip extension of the radioactive zone of the above mentioned workings. Results of radiometric probing of the holes by the Atomic Energy Commission indicated: (1) the weak radiometric horizon of holes 3, 4, and 5 corresponds to the radioactive horizon of the main workings; (2) the weak radiometric horizons of holes 1 and 2 are respectively 90 feet below and 30 feet above the projected horizon; and (3), holes 6 and 7 contain no radiometric zones.

ORE RESERVES

The grade of radioactive material is based on radiometric and chemical assays shown on figure 3. The best showings are at the main workings where discontinuous zones of about 1 foot thick show about 0.1 percent U_3O_8. A 6-foot thick zone at the most highly radioactive zone, sampled by Phelps Dodge examiners, assayed 0.05 percent U_3O_8. For the diamond drill holes, Atomic Energy Commission reported that radioactivity was due to metatorbernite in about a 1-inch silty bed near the base of the Upper Dripping Spring quartzite.

The property contains no measurable reserves of uranium ore. The indicated and inferred reserves probably are in the order of tens, or not over 100 tons of material containing 0.1 percent U_3O_8.

CONCLUSIONS

Anomalous radioactivity is erratically distributed along a 3-foot thick shaly bed near the base of the Upper Member of the Dripping Spring quartzite formation.

At the surface the zones of highest radioactivity contain about 0.1 percent U_3O_8 over a maximum thickness of about 1 foot. At depth the width of the radioactive zone narrows to about 1 inch.

The property contains no measurable reserves of uranium ore, and the indicated and inferred reserves probably do not exceed 100 tons of material containing about 0.1 percent U_3O_8.

RECOMMENDATION

Denial of the requested aid in exploration of the Sky, Zora, Fran and Peanuts claims is recommended because the possibilities of discovering significant reserves of uranium ore are unfavorable.

MINERAL DEPOSITS
DMEA
RECEIVED
DEC 19 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
DEC 23 1955

Box 4126 University Station
Tucson, Arizona

December 16, 1955

DMEA
Date Rec'd.
DEC 20 1955
BUREAU OF MINES
Denver, Colorado
TRANSMITTED
DEC 21 1955

MEMORANDUM

To: Mr. E. N. Harshman

From: John N. Faick

Subject: DMEA 3923 - Interstate Uranium Corporation
Sky, Zora, Fran, and Peanuts Claims
Gila County, Arizona (Uranium)

Enclosed are the original and 10 copies of a Report of Examination of the above subject property, by Leonid Bryner. The report recommends denial of government participation because geological conditions indicate that only small reserves of sub-marginal material, containing about 0.1% U_3O_8 or less, are present. This report has my approval.

John N. Faick

John N. Faick

JNF:ms

cc: Harshman (10)
Storms

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55
(Date)

U. S. DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REGION III

TRANSMITTED
DEC 21 1955

GEOLOGY

EXAMINATION REPORT

DMEA 3923

INTERSTATE URANIUM CORP. SKY, ZORA, FRAN, AND PEANUTS CLAIMS, GILA COUNTY, ARIZONA

(Uranium)

By
Leonid Bryner
Geologist
U. S. Geological Survey

December 14, 1955

Reviewed by
DMEA OPERATING COMMITTEE
12-30-55
(date)

RECEIVED
DEC 23 1955

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
FIELD TEAM III

EXAMINATION REPORT
DMEA 3923

INTERSTATE URANIUM CORP. SKY, ZORA, FRAN, AND PEANUTS CLAIMS, GILA COUNTY, ARIZONA
(Uranium)

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ILLUSTRATIONS

Fig. 1 - Location Map	See Engineering Report
Fig. 2 - Claim Map	" " "
Fig. 3 - Geologic and Assay Map	Following page 5
Plate 1 -Diagramatic Section of Apache Group	" " 5

In an application to the Defense Minerals Exploration Administration dated June 15, 1955, L. G. Marshall, of the Interstate Uranium Corporation, requested government participation in a project estimated to cost $45,000 to explore for uranium on the Sky and adjacent claims. The proposed work was to consist of 3,000 feet of diamond drilling and 500 feet of drifting.

The claims are located in the northeast part of the U.S.G.S. Ray Quadrangle in sections 2 and 3, T. 3 S., R. 15 E, Gila County, Arizona. The turnoff to the claims is at a point on the Winkleman road about 15 miles south of the Globe-Safford highway. From this point a narrow dirt road leads northeast about one mile to the workings.

The fifteen unpatented claims that comprise the property (Zora Nos. 1-4, Sky Nos. 1-5, Fran Nos. 1-5, and Peanuts) are leased by the applicant from George K. Angius and D. N. Zenovich, who are the locators and owners.

I spent half a day (November 17) on the property with Angius. The next day T. M. Romslo of the U. S. Bureau of Mines joined us in examining the property. The property had previously been examined by Roland J. Schwartz of AEC and H. C. Granger and Robert Raup of the USGS. These geologists, as well as the Phoenix office of the AEC, were consulted in regard to this property. M. L. Reyner[1/], in a letter dated November 22, 1955, writes:

> "From our examination of the Zora, Fran, Sky, and Peanuts claims we have concluded that they do not warrant further exploration work."

1/ Chief, Phoenix Sub-office, Salt Lake Exploration Branch, AEC.

Granger in a letter dated November 6, 1955, regards the property as consisting of "secondary sub-marginal deposits." He writes:

> "Locally a concentration of ore grade material may exist in these secondary bodies, but for the most part they are not economically minable."

In discussing the property with Angius we learned that a Phelps Dodge representative, as well as Chapman and Wood of Albuquerque, also had examined and sampled the deposit. So it appears that this deposit had been unfavorably appraised by at least four different parties prior to the examination for DMEA. My impression of the property from the standpoint of a DMEA project also is unfavorable.

GEOLOGY

The Mescal Mountains, where the deposits are located, consist of Late Precambrian and Paleozoic strata that have a moderate southerly dip and are intruded by diabase. The strata dip into the south wall of a canyon that drains the westerly flank of El Capitan Mountain. A bench along this wall of the canyon marks the contact between the more resistant quartzitic lower member, and the softer, somewhat shaley upper member of the late Precambrian Dripping Spring quartzite. In the vicinity of the main working (fig. 3) the strike is N75°W and the dip 20°S. At a point about 500 feet east of the main working the strata break off against a northwesterly-trending fault that has down-dropped the ground to the north about 50 feet. At this same locality a body of diabase, more or less co-extensive with the fault, cuts across the strata.

The deposit, as exposed in the main working, which is a cut about 30 feet long, is in the base of the upper member, about 10 feet stratigraphically above the lower member. This is about 100 feet stratigraphically below the horizon of most of the known Dripping Spring uranium deposits (Plate 1). Anomalous radioactivity is confined to a light-gray, shaley bed about 3 feet thick. Uranium in the form of torbernite occurs mainly along partings in this bed. No primary uranium minerals have been found. Distribution of torbernite across as well as along the shaley bed is erratic. Another cut about 80 feet west of the main working along the outcrop exposes the same radioactive zone. Exposures are too poor to check the continuity of this zone between both workings. But beyond both workings, significant radioactivity persists for a short distance along the outcrop. Granger, in his letter, states: "Local high radioactivity at about the same horizon was noted over more than 400 feet of outcrop."

In back of the outcrop, diamond drilling has provided additional information on the distribution of anomalous radioactivity. The results of radiometric probing of the diamond drill holes were sent to us by R. J. Schwartz in a letter dated November 5, 1955. In order to correlate this radiometric data I made a Brunton-tape survey of the holes. From the locations and collar elevations so obtained, it appears that the radiometric horizon in holes 3, 4, and 5 corresponds to the down-dip extension of the radioactive horizon exposed in the two workings, but that the other two holes, namely 1 and 2, showed radioactivity respectively 90 feet below and 30 feet above the projected horizon. Holes

6 and 7, which are farthest from the outcrop, did not show any more than trace anomalous radioactivity. This information suggests that the main radioactive zone does not persist more than 80 feet into the canyon wall, that two minor zones at different horizons occur about 95 and 135 feet in from the wall, and that 220 feet and farther in from the wall, no significant anomalous radioactivity is present.

The deposit probably was formed by ground water that leached uranium from the slightly radioactive upper member and, in moving down, encountered relatively impervious rock near the top of the lower member. The ground water thus accumulated in the base of the upper member and might have deposited some of its uranium by evaporation close to the outcrop. Progressive stripping back by erosion of the outcrop in a down dip direction might have caused further concentration of this uranium near the outcrop by re-solution and re-deposition. Under this theory the deposits are spatially related to topography as well as to structure. A possibility advanced by Granger is that uranium leached from the upper member might have accumulated in paleo channels in the top of the lower member.

GRADE AND RESERVES

No shipments have been made from this property. Grade data is based on sampling. The results of most of this sampling is shown in figure 3. The best showings contain about 0.1 percent U_3O_8. But rock of this grade generally occurs in a zone that is less than one foot in thickness and that is discontinuous though approximately at the same horizon. A sample of the main working by Phelps Dodge examiners

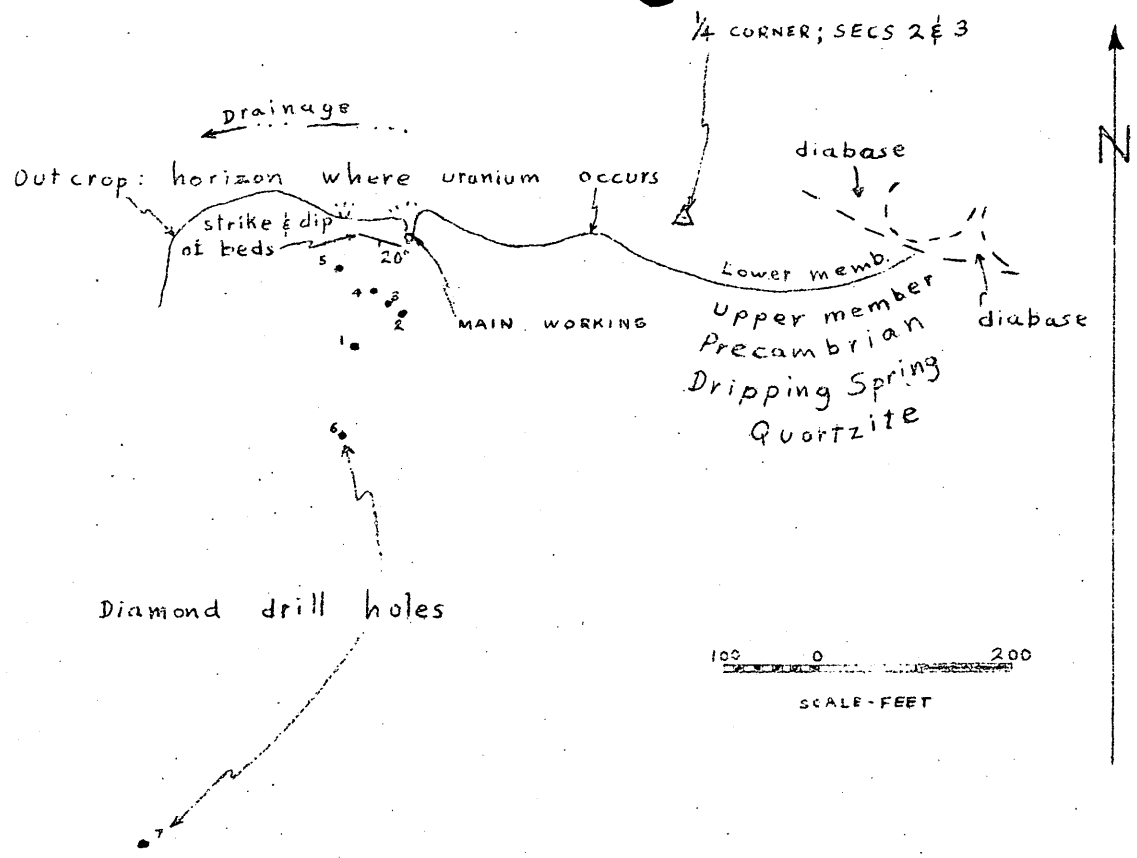
indicates that as much as 6 feet of 0.05 percent material occurs near the surface at the most highly mineralized showing found on the property. None of the diamond drill holes, however, found any such thicknesses a short distance back of the outcrop. In fact, Schwartz concluded from examining the core that radioactivity was "due to meta-torbernite in about a 1-inch silty bed near the base of the upper Dripping Spring quartzite."

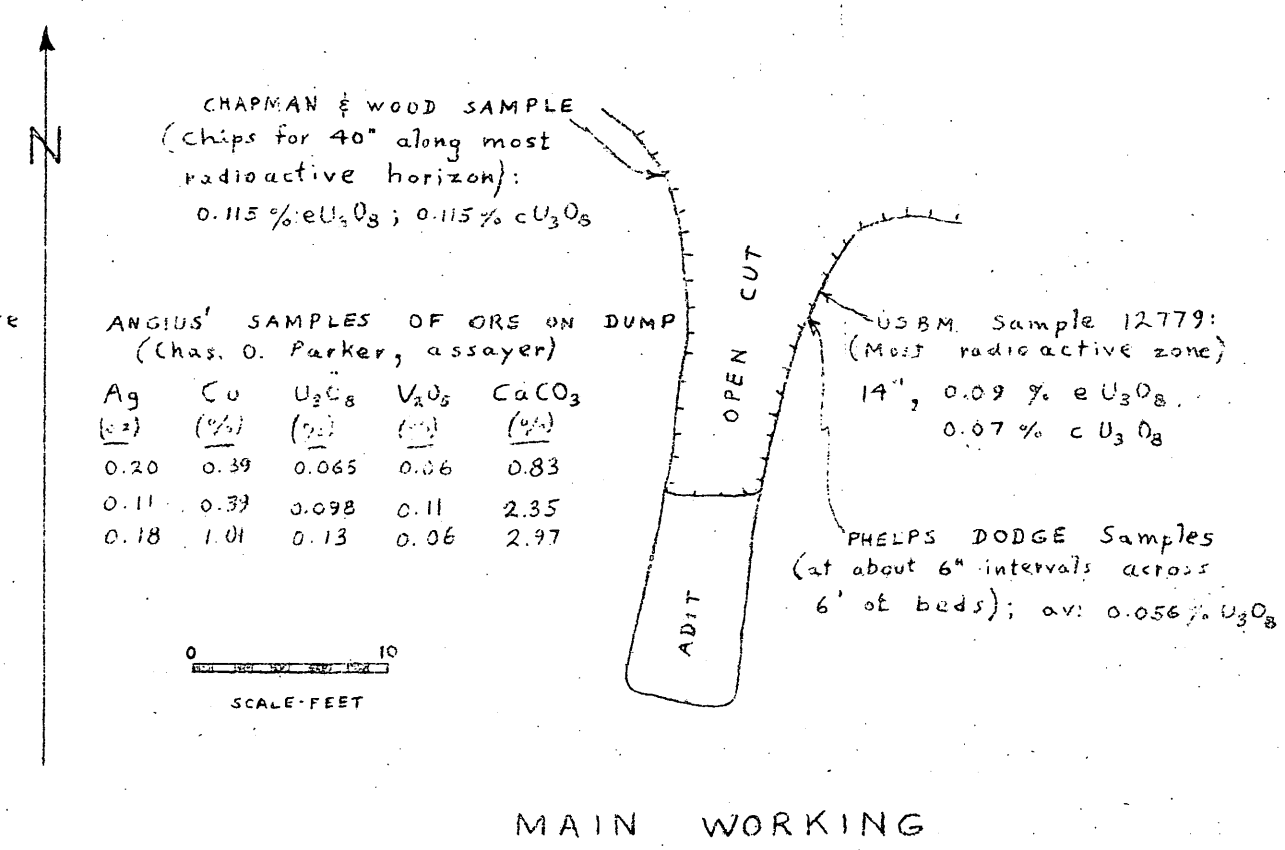
Although the applicant has removed some of the drill core from the boxes for sampling purposes, he has not complied with our request for the complete assay returns of this sampling. He did, however, submit 15 radiometric assays for unspecified intervals of the core from hole No. 7. These radiometric assays ranged from less than 0.01 to 0.03 percent. They confirm the low value obtained by radiometric probing.

Not enough is known about the distribution of uranium and about ore controls to estimate indicated and inferred reserves with any reliability. But the best material, averaging 0.1 percent U_3O_8, probably represents reserves on the order of tens or, at the most, hundreds of tons.

CONCLUSIONS AND RECOMMENDATIONS

The best ore here is marginal in grade. The possibility of discovering a significant tonnage of such ore seems poor because the outcrop shows only a thin, highly discontinuous ore zone, and because this zone probably does not persist more than 50 to 100 feet behind the outcrop. My recommendation, therefore, is that government participation in this project be denied.





AEC DATA ON HOLE PROBING

Hole No.	Collar Elev. (feet above ore at main working; USGS data)	Depth (ft.)	Mr/hr*
		172	0.9
1	+41	173	0.7
2	+29	22	0.17
3	+26	46	0.26
4	+23	45	0.7
5	+15	34 35	1.2 0.4
6	+66		<0.2
7	−23		<0.2

*Probe calibration: 0.7 Mr/hr = 0.10 % eU3O8 ; 1.4 Mr/hr = 0.20 % eU3O8

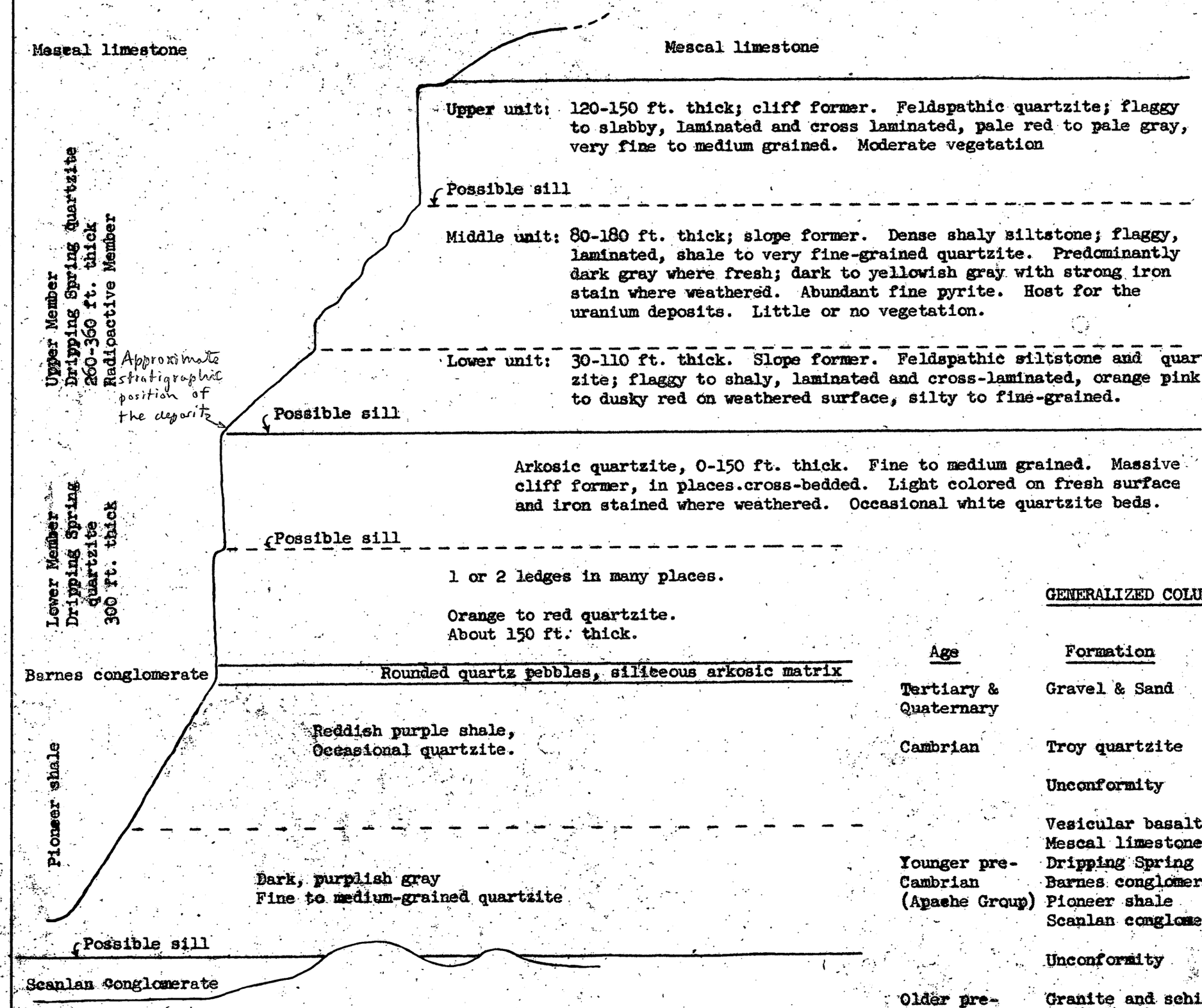
FIG. 3 - GEOLOGIC AND ASSAY MAP OF INTERSTATE URANIUM CORP. WORKINGS ON SKY, ZORA, AND FRAN CLAIMS, GILA COUNTY, ARIZONA

Location survey by Lorand Bryner, USGS, Nov. 17, 1955

DMEA-3923

PLATE I

DIAGRAMATIC SECTION OF APACHE GROUP IN GILA COUNTY AND ADJACENT AREAS, ARIZONA



GENERALIZED COLUMNAR SECTION

Age	Formation	Thickness (feet)	Average Thickness
Tertiary & Quaternary	Gravel & Sand		
Cambrian	Troy quartzite	500	
	Unconformity		
Younger pre-Cambrian (Apache Group)	Vesicular basalt flow	0-75	75
	Mescal limestone	225-400	300
	Dripping Spring quartzite	450-700	700
	Barnes conglomerate	0-50	
	Pioneer shale	150-250	250
	Scanlan conglomerate		
	Unconformity		
Older pre-Cambrian	Granite and schist		

September 30, 1955

Memorandum

To: W. R. Storms

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 3983 (Uranium), Interstate Uranium Corporation, Zorn, Sky, Fran, and Peanuts claims, Gila County, Arizona

The subject application in the amount of $45,000.00 is enclosed. The brochure consists of:

1. Form MF-103 and supplementary information sheets
2. Print of sketch map of mining claims
3. Print of abstract of title
4. Copy of letter from L. G. Marshall to Sherwood B. Owens
5. 2 copies of letter from L. G. Marshall to E. W. Ellis
6. Typical section through drill hole
7. Copies of U.S.G.S. Map Arizona Ray Quadrangle

A field examination and suitable report are required. The completed report should be sent directly to the Executive Officer with a copy of your memorandum of transmittal to this office.

W. E. KING

W. E. King

Enclosures

Copy to: E. N. Harshman
J. H. Faick
W. M. Traver (3)
Sec Op. Com.

September 30, 1955

Memorandum

To: W. R. Storms

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMSA 3983 (Uranium), Interstate Uranium Corporation, Zora, Sky, Fran, and Peanuts claims, Gila County, Arizona

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7. Copies of U.S.G.S. Map Arizona Ray Quadrangle

A field examination and suitable report are required. The completed report should be sent directly to the Executive Officer with a copy of your memorandum of transmittal to this office.

W. R. KING

W. R. King

Enclosures

Copy to: E. W. Barnhusen
J. N. Faick
W. M. Traver (3)

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

September 29, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: W. K. King (With brochure)
J. K. Faick

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3923 (Uranium), Interstate Uranium Corporation, Zero, Sky, Fran, and Peanuts Claims, Gila County, Arizona

Enclosed is the subject application in the amount of $45,000.00. The brochure consists of the following:

1. Form MF--103 and accompanying answer sheets
2. Copy of a letter from L. G. Marshall to Sherwood B. Owens
3. Sketch map of mining claims
4. Abstract of title

Also attached is supplemental information received from the applicant in the form of a letter dated September 14, 1955 and two maps.

A copy of a letter from the Chairman of the Operating Committee and a review of the application by W. P. Williams and John E. Crawford are also enclosed.

A field investigation and suitable report are required.

W. M. Traver

Enclosures

HMC:ab
cc: Sec. Opr. Comm. (2)
Harshman
Docket 3923
Chron.

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

September 29, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: W. E. King (With brochure)
J. E. Faick

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3923 (Uranium), Interstate Uranium Corporation, Zora, Sky, Fran, and Peanuts Claims, Gila County, Arizona

Enclosed is the subject application in the amount of $45,000.00. The brochure consists of the following:

1. Form NF--103 and accompanying answer sheets
2. Copy of a letter from L. G. Marshall to Sherwood B. Owens
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A field investigation and suitable report are required.

W. M. Traver

W. M. Traver

Enclosures

HMC:ab
cc: Sec. Opr. Comm. (2)
Harshman
Docket 3923
Chron.

Surname

700

Ellis
Nelson
Gehan
Selfridge

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

Mr. L. G. Marshall
P. O. Box 5238
Tucson, Arizona

SEP 23 1955

Re: Docket No. DMEA-3923 (Uranium)
Interstate Uranium Company
Zora, Sky, Fran, and Peanuts Group
Gila County, Arizona

Dear Mr. Marshall:

The application for assistance in exploring the subject property in Gila County, Arizona, 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 the Executive Officer of Region III at the following address:

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

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

Sincerely yours,

Frank E. Johnson

ACTING Administrator

Copy to: Interstate Uranium Company
9317 Colima Road
Whittier, California

MChing:EWEllis:am
9-21-55
cc to: Admr. Reading File
Docket
Messrs. J.E.Crawford,Rm.3641
T.H.Kiilsgaard,Rm.5222
J.O.Hosted,Rm.3210,GSA
Code 700
Mr. Ching
DMEA Field Team, Region III(2)

Surname 700

Ellis
Selfridge
Hollenman

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

SEP 27 1955

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3923 (Uranium)
Interstate Uranium Company
Zora, Sky, Fran, and Peanuts
Claims
Gila County, Arizona

Dear Mr. Traver:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendation. A copy of the application was retained by your office.

Enclosed are two copies each of memoranda by W. P. Williams, dated August 3, and John E. Crawford, dated August 10, 1955, of the Uranium Commodity Committee.

Also enclosed are supplemental information from the Applicant in the form of a letter dated September 14, 1955, and two maps.

In the event a contract is recommended Consents to Lien would be required of George K. Anglus and D. N. Zenovich, and of Sherwood B. Owens.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

/s/ Robert W. Geehan (RWG)
Member, Bureau of Mines

N. E. Nelson (NEN)
Member, Geological Survey

MChing:EWEllis:am
9-21-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5222
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

8/16/55 gla

L. G. MARSHALL
CONSULTING ENGINEER
MINING - GEOLOGY

RECEIVED
SEP 23 1955

September 14th, 1955
Box 5238
Tucson, Arizona

Mr. Ernest W. Ellis, Chief,
Rare and Miscellaneous Metals
Division
United States Department of the
Interior
Washington, 25, D. C.

RE: Docket No.DMEA-3923
(Uranium)

Dear Mr. Ellis:

I regret the delay in answering your recent correspondence, however, it was necessitated by my absence from Tucson on business.

The holes were radiometrically logged by the Globe representative of the A.E.C. at the request of George K. Angius, Miami, Arizona, local representative of the Interstate Uranium Co. It is understood that the company did not and does not have suitable equipment for this operation. It is my understanding that no formal radiometric report was made to the company by the A.E.C. engineer. It is understood that the values indicated ranged up to 0.20%. Core recovery in the shale bed was poor and radiometric comparative analysis indicated values of sub-commercial grade. No official record of these analysis exists. The surface exposure of the 4 to 6 foot mineralized shale bed shows the preponderance of mineralization existing in the heavily fractured portions which would be extremely difficult to core. The logical assumption here would be that a good percentage of the values were not recovered by the drilling. The purpose of the 300 foot crosscut is to determine the true nature and value of the shale bed in the immediate area. All future work in this area will be under competent, experienced supervision.

Scintilometer readings can be obtained at numerous spots throughout the 4000 feet of shale bed exposure. The drift on the Sky #3 claim is located to explore a zone of heavy vertical fracturing in both the shale and quartzite strata. The immediate area shows a pronounced increase in radioactivity in the shale and quartzite. This is indicative of similar zones in the same formation in the Sierra Ancha district that have accounted for a considerable portion of this districts production to date. The 100 foot crosscut would be driven in the fracture zone and in the shale bedding. The crosscut will be driven along the strike of the shale bed which, because of the topography at this point, approximates the strike of the fractured zone.

The adit on the Fran #1 claim is located to explore a "hot" zone in the quartzite beds overlying the mineralized shale bed. The only indication of mineralization in this particular area is the high geiger readings. No exploration work has been done.

The lack of suitable topographic and geologic maps is regretable. However, I am forwarding copies of the Ray Quadrangle showing the outlined area embraced by this group of claim and indicating the approximate trace of the shale bed outcrop.

Cut samples taken in the present workings on Sky #5 range from .09% to .41% uranium oxide. There are several locations other than those discussed herein, that show a very high count. However, the locations chosen appear to have the most promise (by geiger count) and to be situated in the most favorable attitudes for mining purposes. Should the proposed exploration prove favorable it is possible that a large tonnage of ore can be made available to the Cutter purchasing depot. The extent of the shale bed down dip is unknown but should be very extensive in view of the mile long exposed

outcrop.

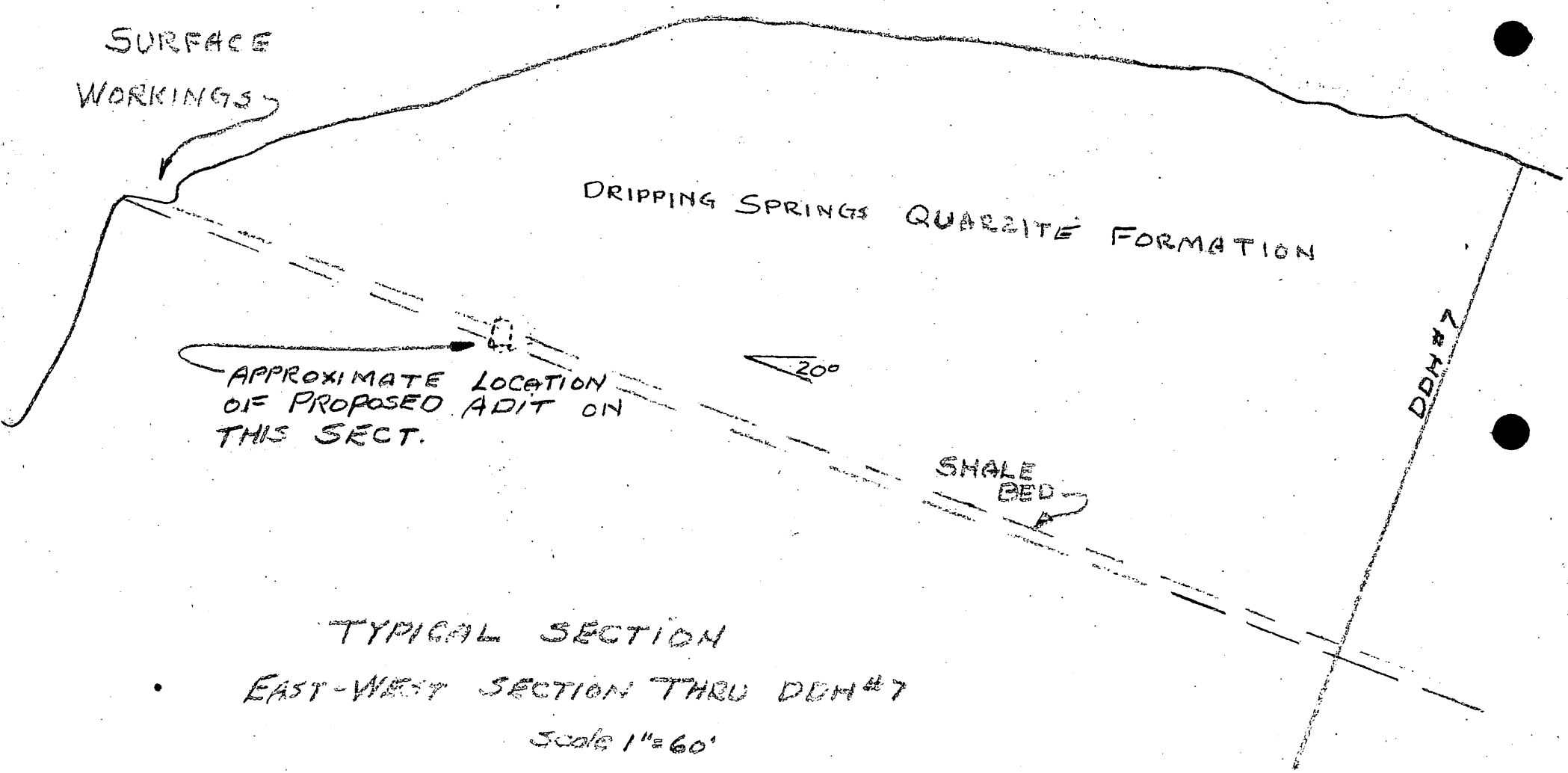
This property definitely warrants additional comprehensive exploration. Should the exploration show quantities of commercial ore, it means that a newdistrict will be opened for the production of uranium.

Sincerely,

L. G. Marshall

L. G. Marshall

LGM:vka



TYPICAL SECTION

EAST-WEST SECTION THRU DDH #7

Scale 1" = 60'

DOCKET # DMRA-3923

Surname 700

Ching
Ellis
Matthews

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

Mr. L. G. Marshall
P. O. Box 5238
Tucson, Arizona

AUG 10 1955

Re: Docket No. DMEA-3923 (Uranium)
Interstate Uranium Company
Zora, Sky, Fran, and Peanuts Group
Gila County, Arizona

Dear Mr. Marshall:

In reviewing the subject application we note that seven diamond drill holes, 200 feet of dozer trenching, and 600 cubic feet of hand trenching have been completed on the property, and that the drill holes were probed by the Atomic Energy Commission. Since complete results of this work were not supplied with the application it is requested that you supply us with all details, including geologic and radiometric logs of the holes and position and chemical analyses of all samples taken. If possible, a more detailed map should be supplied showing topography, outcrops, and other geological details which would justify the position and extent of your proposed drilling and crosscutting. A typical cross section of the formations on the property would also be helpful. All data should be submitted in quadruplicate.

Pending receipt of the above-mentioned data we shall continue to process your application.

Sincerely yours,

SIGNED

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

MChing:am
8-10-55
cc to: Admr. Reading File
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5222
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region III(2)

R.C.S.

8/11/55 gla

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

August 10, 1955

Memorandum

RECEIVED
AUG 11 1955

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

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

Subject: Application for assistance, DMEA Docket 3923, Interstate Uranium Co., Gila County, Arizona

I have reviewed the attached application, Interstate Uranium Co., DMEA Docket 3923; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The Interstate Uranium Co. has six diamond drill holes on the subject claims and all openings with the exception of Hole No. 3 are accessible. Present reserves estimated from these drill holes, which are near the outcrop, are said to be 13,000 tons of .10 percent U_3O_8; no details of this preliminary work were submitted.

The applicant proposes to explore the mineralized zone down dip from the present indicated ore reserves.

The applicant merely states in his application that 3,000 feet of diamond drilling and 500 feet of drifting are requested. According to the enclosed map, the applicant only accounts for 1,000 feet of drilling in 4 proposed holes, and 500 feet of drifting. It is questionable whether the drifting will supply relevant information, since only one hole will accompany each 100 feet of drifting. The applicant has also failed to state whether drifting will be continued even if mineralization is not found to occur in the adjacent drill hole.

The total cost of diamond drilling will be $9.50 per foot; of this, $7.00 per foot will be on a unit-cost form of contract. Drill contractors' representative prices for core drilling for a depth of 200 to 300 feet do not exceed $3.00 per foot. The cost of drifting appears reasonable.

We recommend that the application be referred to the Field Team for investigation and report, and suggest that the Field Team be requested to consult with E. E. Thurlow, Atomic Energy Commission, Salt Lake City, Utah.

John E. Crawford

John E. Crawford

Attachment

IN REPLY REFER TO:

8-5-55
Em.

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

August 3, 1955

Memorandum

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

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

Subject: Review of DMEA application, Docket No. 3923, Interstate Uranium Company.

The applicant proposes to explore for uranium ore on 15 lode mining claims located in the El Capitan mining district, Gila County, Arizona. The proposed work would include 3,000 feet of diamond drilling and 500 feet of drifting at a total estimated project cost of $45,000.

In a brief report attached to the application, Mr. L. G. Marshall -- a partner in the Interstate Uranium Company -- recommends a "comprehensive drilling program" as well as some open-cut work.

Because of the sporadic nature of uranium mineralization the 3 to 6 foot thick shale member carrying the ore in the Dripping Spring quartzite may not be thick enough to form an adequate zone for significant ore bodies.

The applicant states six diamond drill holes, 200 feet of dozer trenching, and some hand trenching have already been completed on the property. None of the results of the preliminary exploration work accompany the application.

I recommend that the application be referred to the Field Team for field examination and report. It may be well to advise the applicant that results of previous work on the property must be made available to the Government before proper processing of the application can be completed.

Completed Owner's Consents to Lien and Subordination Agreements have apparently not been obtained from the lessors by the Interstate Uranium Company.

WPWilliams

W. P. Williams

IN REPLY REFER TO:

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

August 3, 1955

Memorandum

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

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

Subject: Review of DMEA application, Docket No. 3983, Interstate Uranium Company.

The applicant proposes to explore for uranium ore on 15 lode mining claims located in the El Capitan mining district, Gila County, Arizona. The proposed work would include 3,000 feet of diamond drilling and 500 feet of drifting at a total estimated project cost of $45,000.

In a brief report attached to the application, Mr. L. G. Marshall -- a partner in the Interstate Uranium Company -- recommends a "comprehensive drilling program" as well as some open-cut work.

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Completed Owner's Consents to Lien and Subordination Agreements have apparently not been obtained from the lessors by the Interstate Uranium Company.

WPWilliams:iml
G-8/3/55
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

WPW

W. P. Williams

Memorandum

To: Executive Officer, DMEA Field Team, Region III

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 III

DMEA-3923 Interstate Uranium Co.

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

July 29, 1955
Subject: DMEA-3923
Re: Exploration Assistance
Interstate Mine

Interstate Uranium Co.
9317 Colima Road
Whittier, California

Gentlemen:

The receipt of your application dated June 15, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3923 and referred to the Rare & Miscellaneous 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

60932

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

RECEIVED
JUL 26 1955

224 New Customhouse
Denver 2, Colorado

July 25, 1955

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA assistance (Uranium), Interstate Uranium Company, Gila County, Arizona

Enclosed are three copies of the subject application in the amount of $45,000.00.

The applicant requests both diamond drilling and drifting. The map indicates that drifting would follow the diamond drill holes which would not be allowable under DMEA Order 1 Amended. The applicant's cost breakdown is in short form and is not entirely satisfactory.

One copy of the application has been retained in this office.

W. M. Traver

Enclosures

L. G. MARSHALL
CONSULTING ENGINEER
MINING - GEOLOGY

DMEA
Date Rec'd.
JUL 22 1955
BUREAU OF MINES
Denver, Colorado

P. O. Box 5238
Tucson, Arizona
July 16, 1955

RECEIVED
JUL 2 1955

DMEA
U. S. Bureau of Mines
Custom House Bldg.,
Denver, Colorado

Gentlemen:

Attached is an application for a loan to explore the Interstate Mining property in the El Capitan district southeast of Globe, Arizona.

There have been seven holes drilled on the property to date. Because of the variance in core analysis and probings and the spotty character of the mineralization it is desirable to drive exploration drifts into the indicated ore zone to obtain comprehensive samples of the ore.

Inasmuch as this is the most promising deposit in this district it is requested that your Tucson branch office and the AEC office in Globe, Arizona, work in close conjunction with the present operators to determine the true worth of this property.

The ore horizon has been cut in all seven drill holes. Probings by the AEC indicate a possible reserve of ore averaging better than 0.10 percent uranium oxide. Assays from the outcrop have been as high as .410 percent; however, a more comprehensive analysis of the ore deposit is required.

Yours very truly,

L. G. Marshall

L. G. Marshall

LGM;m
Attachments

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Date Rec'd. 4/7

Form Approved.
Budget Bureau No. 42-R1026.2

JUL 22 1955

RECEIVED
JUL 29 1955
BUREAU OF MINES
Denver, Colorado

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. 3923
Metal or Mineral Uranium
Date Received 7-29-55
Estimated Cost $45,000
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: Interstate Uranium Co., 9317 Colima Road, Whittier, California
A partnership (consisting of):
C. Orin Swain, 9317 Colima Rd., Whittier, California
S. H. Woodruff, 630 S. Roosmore Ave., Los Angeles, California

(*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
See attached abstracts

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise See abstracts
Under Option for Purchase

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it

(*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 30 days and be completed within 7 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)?

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

[X] Money [X] Use of equipment owned by you [X] 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 6-15, 1955

Interstate Uranium
(Applicant)

By L. B. Marshall

1150 W. Prince

Cheyenne, Wyoming

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

3. Applicants property rights -

(b) Interstate Mine

(d) Abstracts attached

(f) Abstracts attached

RECEIVED
JUL 2 J 1955

4. Physical description -

(a) Six diamond drill holes have been drilled to date upon the property. The drilling has been conducted under contract by R. S. McClintock, 418 W. Second Avenue, Spokane 7, Washington. In addition approximately 200 feet of dozer trenching has been completed and about 600 cu. feet of hand trenching has been done on the vein. The trenching was done by the original owners. The diamond drilling and one-half mile of excess road has been done by Interstate Uranium. All openings with the exception of Hole No. 3 are accessible.

(b) No past production. The present ore reserves, as indicated by probings, by R. S. Schwartz, Atomic Energy Representative, Globe, Arizona, indicate 13,000 tons of .10 percent uranium oxide, with a probable recoverable tonnage of 8,000 tons. This ore reserve is in the vicinity of the outcrop. It is desirable to determine the tonnage down dip from the present indicated ore reserves. From examination of the attached sections it is apparent that the possibility of concentration of the uranium oxides down the dip exist. The purpose of the proposed exploration program is to explore the mineralized zone at a maximum depth below the outcrop of about 360 feet. Recent developments in the Siena Ancha district indicate a low grade zone of mineralization in the vicinity of the outcrop with concentrations of commercial grade ore at varying depths. The Interstate property is in the same formation as the Siena Ancha deposits. The proposed exploration work is indicated on the accompanying maps.

(c) The mineralization occurs in a shale bed of variable thickness, 3 to 6 feet, in the Dripping Springs Quartzite formation. The strike of the shale bedding is S. 85 W. and the dip is 21° southerly. Some areas of appreciable count were noted in the hanging wall quartzite. The shale bedding has been roughly exposed by two open cuts, one approximately thirty feet in length and one about ten feet in length. These are horizontal cuts and do not follow the shale in their entirety but run into the overlying quartzite. Six probe holes six feet deep have been drilled over a 100 foot strike length of the shale exposure. Extensive weathering is apparent in all exposures. The shale outcrop can be traced for approximately 4000 feet. The present exploration workings contain about 200 feet of this exposure although a scintillator count can be obtained throughout its strike length. The mineralization is secondary, and occurs as torbernite or metatorbernite. The vanadium and copper content is minor. The mineralization occurs along partings of the shale bedding. Please refer to accompanying maps.

(d) The property is adjacent to the Winkleman-Globe road, graded and maintained, and is reached as follows: on the Winkleman turnoff five miles east of Globe on the Safford Highway proceed for 14.8 miles, thence 1.2 miles east on a bulldozer road to a centrally located point on the group of claims. The nearest source of supplies is Globe. The nearest shipping point is Hunter, 15 miles northerly.

(e) The work requested will be done under contract. Contracting facilities are available within the area.

5. The exploration project -

(b) 3000 feet of diamond drilling and 500 feet of drifting are requested. Please refer to accompanying maps.

(d) The work will be under the supervision of L. G. Marshall, Consulting Engineer, Tucson, Arizona, former Mining Engineer and Geologist with Anaconda Copper, Kennecott Copper and the U. S. Bureau of Mines. (See attached personal data)

6. Estimate of costs - A unit-cost form of contract is requested.

(a)	3000 feet of diamond drilling @ $7 per foot	$21,000.00
	500 feet of drifting @ $30 per foot	15,000.00
		$36,000.00

(b)(c)(d)(e)(f)(g)(h)

3000 feet of diamond drilling @ $2.50 per foot	$77,500.00
500 feet of drifting @ $3.00 per foot	1,500.00
	$ 9,000.00

Grand Total	$45,000.00

7.

(a) Yes.

(b) Interstate Uranium Company is prepared to furnish their share of the cost on a cash basis.

COPY

Box 5238
Tucson, Arizona

September 21, 1954

Mr. Sherwood B. Owens
4052 Calle De Jardin
Tucson, Arizona

Dear Sir:

On September 18th and in the company of George K. Angius, Miami, Arizona, I examined the Zora, Sky, Fran, and Peanuts Group of claims in the El Capitan Mining District, Gila County, Arizona.

The property is adjacent to the Winklemen-Globe road, graded and maintained, and is reached as follows: on the Winkleman turnoff five miles east of Globe on the Safford Highway proceed for 14.8 miles, thence 1.2 miles east on a bulldozer road to a centrally located point on the group of claims. The last one mile is accessible only by a four-wheel drive vehicle. The nearest source of supplies is Globe. The nearest shipping point is Hunter, 15 miles northerly.

The mineralization occurs in a shale bed of variable thickness, 3 to 6 feet, in the Dripping Springs Quartzite formation. The strike of the shale bedding is S. 85 W. and the dip is 21° southerly. Some areas of appreciable count were noted in the hanging wall quartzite. The shale bedding has been roughly exposed by two open cuts, one approximately thirty feet in length and one about ten feet in length. These are horizontal cuts and do not follow the shale in their entirety but run into the overlying quartzite. Six probe holes six feet deep have been drilled over a 100 foot strike length of the shale exposure. The location, attitude and extent of the present exploration workings do not allow a comprehensive conclusion on the probable worth of the property but further investigation is definitely warranted. Assays to date indicate a probable uranium oxide content as torbernite of 0.13 to 0.23 percent, copper 0.40 to 1.01 percent, vanadium 0.06 to 0.11 percent and a

silver content of 0.20 oz. Judging from the present exposures no sample was obtained at a depth greater than three feet from the surface. Extensive weathering is apparent in all exposures. The shale outcrop can be traced for approximately 4000 feet. The present exploration workings contain about 200 feet of this exposure although a scintillator count can be obtained throughout its strike length.

In view of the above facts this property definitely warrants further investigation. A comprehensive drilling program is recommended to investigate the mineral content in the unweathered zones. In conjunction with this program the extension of the open cuts down the dip of the shale bedding for a depth of 75 to 100 feet is also recommended.

The attitude of the deposit which is agreeable to slusher room and pillar mining, its extent with attendant large tonnage, its accessibility and its apparent mineral content as presently indicated point toward a possible producing operation.

The Miami Copper Corporation has conducted a drilling program in the vicinity but at a stratigraphically lower elevation and in the quartzite phases of the formation.

The property is located in R. 15 E, T 3 S, Sect. 2 & 3, and is claimed by George K. Angius and D. N. Zenovich, Miami, Arizona.

Respectfully,

L. G. Marshall
Registered Professional Engineer
License 1920

A B S T R A C T O F T I T L E

T O

L O D E M I N I N G C L A I M S

SKY NO. 1	ZORA NO. 1	FRAN NO. 1
SKY NO. 2	ZORA NO. 2	FRAN NO. 2
SKY NO. 3	ZORA NO. 3	FRAN NO. 3
SKY NO. 4	ZORA NO. 4	FRAN NO. 4
SKY NO. 5	PEANUTS	FRAN NO. 5

E L C A P I T A N M I N I N G

D I S T R I C T

G I L A C O U N T Y

A R I Z O N A

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #1 mining claim, was located by the undersigned, George K. Angius, on the 1st day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southerly direction from Globe.

Dated and posted on the ground the day and year first above written.

George K. Angius.

X Jose Ortega
Witness
George K. Angius.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 507, Records of Gila County, State of Arizona.

123456789

111

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #2 mining claim, was located by the undersigned, George K. Angius, on the 1st day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northerly direction from Globe.

Dated and posted on the ground the day and year first above written.

X JOSE ORTEGA
Witness.
George K. Angius.

George K. Angius.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 508, Records of Gila County, State of Arizona.

1-2-3-4-5-6-7-8-9

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #3 mining claim, was located by the undersigned, George K. Angius, on the 1st day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northerly direction from Globe.

Dated and posted on the ground the day and year first above written.

George K. Angius.

X Joe Ortega
Witness by
George K. Angius.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 509, Records of Gila County, State of Arizona.

K-6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Sky #4, mining claim, was located by the undersigned, George K. Anglus, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point o discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a north westerly direction from Globe, Arizona.

Dated and posted on the ground the day and year first above written.

X Jose Ortega
Witness
Dushan N. Zenovich.

George K. Anglus
Dushan N. Zenovich

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 510, Records of Gila County, State of Arizona.

bk 67

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of thich is the Sky #5 mining claim, was located by the undersigned, George K. Angius, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the northwest end and 200 feet from the southeast end of this claim.

The general course of this claim is from northwest to southeast

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

X Jose Ortega
Witness
Dushan N. Zenovich.

Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 511, Records of Gila County, State of Arizona.

LOCATION NOTICE

LODE MINING CLAIM

This mining claim, the name of which is the ZORA #1 mining claim, was located by the undersigned, DUSAN ZENOVICH, on the 4 day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the northwest end and 200 feet from the wouthead end of this claim.

The general course of this claim is from northwest to southeast. This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe.

Dated and posted on the ground the day and year first above written.

Dushan Zenovich

X Jose Ortega
Witness
Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 512, Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Zora #1 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by Dushan N. Zenovich, a citizen of the United States, George K. Angius, a citizen of the United States, the undersigned, on the 2nd day of Feb. 1955, .

The length of this claim is 1500 feet and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22miles in a southerly direction from Globe, Arizona.

The Claim is located in Section 2, Twp. 3 S. Rge. 15 E.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a point which is 2100' North and 300' East of the Southwest corner of said Section 2, at a point in a southerly direction 200 feet from the discovery shaft (at which this notice is posted). being in the center of the South end line of said claim; thence 300 feet to a 4 x 4 monument being the southeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the northeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the north end of said claim; thence 300 feet to a 4 x 4 monument being at the northwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the southwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955

George K. Angius
Dushan N. Zenovich

Filed and recorded on February 3rd, 1955, in Docket 25, at Page 135, Records of Gila County, Arizona.

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Zora #2 mining claim, was located by the undersigned, Dushan N. Zenovich, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the northwest end and 200 feet from the southeast end of this claim.

The general course of this claim is from northwest to southeast

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe.

Dated and posted on the ground the day and year first above written.

Dushan N. Zenovich.

X Jose Ortoga
Witness
Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 513, Records of Gila County, State of Arizona.

6

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Zora #2 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by Dushan N. Zenovich, a citizen of the United States and George K. Anglus, a citizen of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet, and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface ground, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe Ariz.

This claim is located in Section 2, Twp 3S, Rg 15 E., and adjoins the Zora Claim #1 to the west.

The surface boundaries of the claim are marked upon the ground as follows, Beginning at stone monument at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955.

George K. Anglus
Dushan N. Zenovich.

Filed and recorded February 3rd, 1955, in Docket 25, at Page 136, Records of Gila County, State of Arizona.

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Zora #3 mining claim, was located by the undersigned, Dushan N. Zenovich, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1300 feet from the north end and 200 feet from the south end of this claim.

The general course of this claim is from northwest to southeast.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe.

Dated and posted on the ground the day and year first above written.

Dushan N. Zenovich.

X His Mark
Witness
Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 514, Records of Gila County, State of Arizona.

BK 6

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Zora #3 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by Dushan N. Zenovich a citizen of the United States, and George K. Angius, a citizen of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

This claim is located in Section 2 Township 3 South Range 15 E. and adjoins the Zora #2 to the West.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the North end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument, at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955.

George K. Angius
Dushan N. Zenovich

Filed and recorded February 3rd, 1955, in Docket 25, at Page 13 Records of Gila County, State of Arizona.

ok 6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Zora #4 mining claim, was located by the undersigned, Dushan N. Zenovich, on the 4th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 1200 feet from the north end and 300 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a northwesterly direction from Globe.

Dated and posted on the ground the day and year first above written.

Dushan N. Zenovich

X His Mark
Witness
Dushan N. Zenovich.

Filed and recorded on May 3rd, 1954, in Docket 6, at Page 515, Records of Gila County, State of Arizona.

ok L

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Zora #4 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by Dushan N. Zenovich a citizen of the United States, and George K. Angius, a citizen of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

This claim is located in Section 2, Township 3 South, Range 15 E., and adjoins the Zora #3 Claim to the West.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the south east corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955.

George K. Angius
Dushan N. Zenovich

Filed and recorded on February 3rd, 1955, in Docket 25, at Page 138, Records of Gila County, State of Arizona.

ok 6

NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining claim, the name of which is the Peanuts Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Anglus, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet, and I claim 100 feet in a northerly direction and 1400 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

This claim adjoins Sky #1 to the north and Ortegas claim Camp Bud to the west.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 100 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

Dated and posted on the grounds this 24th day of April, 1954.

George K. Anglus.

Filed and recorded on August 12, 1954, in Docket 13, at Page 239, Records of Gila County, State of Arizona.

ok

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #1 mining claim, was located by the undersigned, George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point o discovery is 600 feet from the north end and 900 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Arizona.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 430 Records of Gila County, State of Arizona.

K 6

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #1 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet, and I claim 100 feet in a northerly direction and 1400 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

This claim adjoins Sky #2 claim to the north and peanuts claim on the east side of said claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 100 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

This is an amended Location notice of the Fran #1 Mining Claim, located by George K. Angius on the 24th day of April, 1954 and recorded Docket 9-Page 430 of Records of Mines, at page 480 in the office of the County Recorder of the aforesaid County of Gila, to which reference is hereby made, and this amended location notice is made and posted to correct errors in the description in the said original location notice.

Dated and posted on the ground this 14th day of June, 1954.

George K. Angius.

Filed and recorded August 12, 1954, in Docket 13, at Page 240, Records of Gila County, State of Arizona.

OKG

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #2 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet and I claim 100 feet in a northerly direction and 1400 feet in a southerly direction from the center of the discovery shaft, (at which this notice is posted) lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe, Arizona.

This claim adjoins Sky #3 to the north and Fran #1 on the east side of the said claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 100 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the south east corner of said claim; thence 300 feet to a 4 x 4 monument at thecenter of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

This is an amended Location Notice of the Fran #2 mining claim located by George K. Angius on the 24th day of April, 1954, and recorded in Docket 9 of Record of Lines at page 481, in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended location notice is made and posted to correct errors in the description in the said original location notice.

Dated and posted on the grounds this 14th day of June, 1954.

George K. Angius.

Filed and recorded on August 12th, 1954, in Docket 13, at Page 241 Records of Gila County, State of Arizona,

KL

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #2 mining claim, was located by the undersigned George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 600 feet from the north end and 900 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan, mining district, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 481, Records of Gila County, State of Arizona.

ok 6

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #3 mining claim, was located by the undersigned, George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 600 feet from the north end and 900 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 482, Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #3 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet and I claim 100 feet in a northerly direction and 1400 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

This claim adjoins Sky #4 to the north Fran #2 on the east and Fran #4 on the West sides of said claims.

The surface boundaries of the claim are marked upon the ground as follows, Beginning at stone monument at a point in a northerly direction 100 feet from the discovery shaft (at which this notice is posted), being in the center of the North end line of said claim; thence 300 feet to a 4 x 4 monument, being the northwest corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an amended location notice of the Fran #3 Mining Claim, located by George K. Angius on the 24th day of April, 1954, and recorded in Docket 9, of Record of Mines, at Page 482, in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in the said original location notice.

Dated and posted on the grounds this 14th day of June, 1954.

George K. Angius.

Filed and recorded on August 12, 1954, in Docket 13, at Page 242, Records of Gila County, State of Arizona.

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #4, mining claim, was located by the undersigned, George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 600 feet from the north end and 900 feet from the south end of this claim.

The general course of this claim is from north to south.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 483 Records of Gila County, State of Arizona.

of 6

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #4 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 24th day of April, 1954.

The length of this claim is 1500 feet and I claim 200 feet in a northerly direction and 1300 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southwesterly direction from Globe Ariz.

This claim adjoins Sky #5 to the north and Fran #3 on East and Fran #5 on the west sides of said claims.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 200 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the north east corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an amended Location Notice of the Fran #4 Mining Claim, located by George K. Angius, on the 24th day of April, 1954 and recorded in Docket 9 of Record of Mines at Page 483 in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended location notice is made and posted to correct errors in the description in the said original location notice.

Dated and posted on the ground this 14th day of June, 1954.

George K. Angius.

Filed and recorded on August 12th, 1954, in Docket 13, Page 243, Records of Gila County, Arizona.

LOCATION NOTICE
LODE MINING CLAIM

This mining claim, the name of which is the Fran #5 mining claim, was located by the undersigned, George K. Angius, on the 24th day of April, 1954.

This claim is 1500 feet long and 600 feet wide, and the point of discovery is 300 feet from the north end and 1200 feet from the south end of this claim.

The general course of this claim is from North to South.

This claim is situated and located in the El Capitan Mining District, in Gila County, State of Arizona, about 22 miles in a southwesterly direction from Globe, Ariz.

Dated and posted on the ground the day and year first above written.

George K. Angius.

Filed and recorded on June 21st, 1954, in Docket 9, at Page 484, Records of Gila County, State of Arizona.

016

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Fran #4 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by George K. Angius Dushan N. Zenovich, citizens of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet and we claim 200 feet in a northerly direction and 1300 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Ariz.

This claim is located in Section 2 Township 3 S, Range 15 E.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 200 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet toa 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument, at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of Feb. 1955.

George K. Angius
Dushan N. Zenovich.

Filed and recorded on February 3rd, 1955, in Docket 25, at Page 139, Records of Gila County, State of Arizona.

ok b

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining claim, the name of which is the Fran #5 Mining Claim, situate on lands belonging to the State of Arizona, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and lease by George K. Angius, Dushan N. Zenovich, citizens of the United States, the undersigned, on the 2nd day of February, 1955.

The length of this claim is 1500 feet and we claim 200 feet in a northerly direction and 1300 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the North to the South.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe Ariz.

This claim is located in Section 2, Township 3 S. Range 15 E.

The Surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 200 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the South end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted on the grounds this 2nd day of February, 1955.

George K. Angius

Filed and recorded on February 3rd, 1955, in Docket 25, at Page 140 Records of Gila County, State of Arizona.

01-6

AGREEMENT

This Agreement, made and entered into this 29th day of January, 1955, by and between GEORGE K. ANGIUS of Miami, Arizona, and D.N. ZEMOVICH, of Globe, Arizona, hereinafter called SELLERS, and SHERWOOD B. OTENS, of Tucson, Arizona, as BUYER herein,

WITNESSETH:

1. OPTION TO PURCHASE

BUYER, for and in consideration of the sum of Ten Dollars cash in hand paid, receipt of which is hereby acknowledged, and the covenants herein set forth, is hereby granted by SELLERS the exclusive option to purchase, and the right to take possession of, to mine and to take ore from, on the terms hereinafter set forth, that certain group of fifteen unpatented mining claims in the El Capitan Mining District in Gila County, Arizona, location notices of which are recorded in the office of the County Recorder of Gila County, Arizona, in the Dockets and at the Pages set opposite their names, to-wit:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 2	6	513
Zora No. 3	6	514
Zora No. 4	6	515
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 3	6	509
Sky No. 4	6	510
Sky No. 5	6	511
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended	13	243
Fran No. 5	9	484
Peanuts.	13	239

2. PURCHASE PRICE

The purchase price of the above described mining claims, in the event BUYER elects to purchase same, is Two Hundred Fifty Thousand ($250,000.00) Dollars, but said option shall not be considered as exercised until the entire purchase price shall have been paid in full. All cash, ore and/or mill royalty payments made to SELLERS shall apply on the purchase price. The entire option price of Two Hundred Fifty Thousand ($250.000.00) Dollars herein provided for shall be paid in full on or before March 1, 1980, and if not so paid, this agreement shall immediately terminate automatically at midnight on March 1, 1980, and BUYER shall have no further rights hereunder.

* * * * * * * 13. OTHER CONDITIONS.

Time is of the essence of this agreement, which shall be binding upon the heirs, executors, administrators or assigns of all parties hereto and the requirements hereof shall be subject to such interruption as might arise from strikes, riot, war and acts of God.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands the day and year first hereinabove written.

SELLERS:

George K. Angius
D. N. Zenovich

BUYER:

Sherwood B. Owens.

ACKNOWLEDGED as signed by George K. Angius, D.N. Zenovich and Sherwood B. Owens, on January 29th, 1955, before George K. Dea, Notary Public, Gila County, State of Arizona. (Seal) Commission Expires: January 14th, 1957.

Filed and recorded in Docket 25, at Page 37, on January 31st, 1955, Records of Gila County, State of Arizona.

STATE OF ARIZONA)
) SS:
COUNTY OF GILA)

The GILA COUNTY ABSTRACT COMPANY hereby certifies that the foregoing TWENTY SIX (26) entries, make constitute and form a full, true, correct and complete ABSTRACT OF TITLE to Lode Mining Claims known as the ZORA; SKY and FRAN GROUPS of Mining Claims as described on the Caption hereof, situate, lying and being in the El Capitan Mining District, Gila County, State of Arizona, according to the recores in the offices of the County Recorder, County Tax Collector and Clerk of the Superior Court, all in and for the County of Gila and State of Arizona, which show said entries to be true on this the 10th day of February, A.D., 1955, at 4:15 o'clock P.M.

IN WITNESS WHEREOF, The GILA COUNTY ABSTRACT COMPANY has caused this Certificate to be signed by its Secretary thereunto duly authorized on this the 10th day of February, A.D., 1955, at 4:15 o'clock P.M.

GILA COUNTY ABSTRACT COMPANY

Secretary.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Sky #2 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 15th day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet, in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

This is an amended location notice of the Sky #2 Mining Claim, located by George K. Angius, on the 1st day of April, 1954, and recorded in Docket 6 of Record of Mines, at Page 508, in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended location notice is made and posted to correct errors in the description in the said original Location Notice.

Dated and posted on the grounds this 15th day of February, 1955

George K. Angius.

Filed and recorded February 16th, 1955, in Docket 25, at Page 430 Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
Lode Claim.

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Sky #3 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 15th day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet in northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of the said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an Amended Location Notice of the Sky #3 Mining Claim, located by George K. Angius on the 1st day of April, 1954, and recorded in Book, Docket 6, of Record of Mines at Page 509, in the office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in said original Location Notice.

Dated and posted on the grounds this 15th day of February, 1955.

George K. Angius.

Filed and recorded on the 16th day of February, 1955, in Docket 25, at Page 431, Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Sky #4 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 15th day of February, 1955.

The length of this claim is 1500 feet and I claim 1300 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at stone monument at a point in a northerly direction 300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States and the State of Arizona.

This is an Amended Location Notice of the Sky #4 Mining Claim, located by George K. Angius, on the 4th day of April, 1954, and recorded in Book Docket 6, of Record of Mines, at Page 510, in the office of the County Recorder of the aforesaid County of Gila, to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in the said original Location Notice.

Dated and posted on the grounds this 15th day of February, 1955

George K. Angius.

Filed and recorded on February 16th, 1955, in Docket 25, at Page 432 Records of Gila County, State of Arizona.

AMENDED
NOTICE OF MINING LOCATION
LODE CLAIM

TO ALL WHOM IT MAY CONCERN:

This Mining Claim, the name of which is the Sky #5 Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by George K. Angius, a citizen of the United States, the undersigned, on the 15th day of February, 1955.

The length of this claim is 1500 feet and I claim 1500 feet in a northerly direction and 200 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with 300 feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the north to the south.

The claim is situated and located in the El Capitan Mining District, in Gila County, in the State of Arizona, about 22 miles in a southerly direction from Globe, Arizona.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a point in a northerly direction 1300 feet from the discovery shaft (at which this notice is posted), being in the center of the north end line of said claim; thence 300 feet to a 4 x 4 monument, being the northeast corner of said claim; thence 1500 feet to a 4 x 4 monument, being at the southeast corner of said claim; thence 300 feet to a 4 x 4 monument at the center of the south end of said claim; thence 300 feet to a 4 x 4 monument being at the southwest corner of said claim; thence 1500 feet to a 4 x 4 monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and the State of Arizona.

This is an amended Location Notice of the Sky #5 Mining Claim, located by George K. Angius on the 4th day of April, 1954, and recorded in Book Docket 6 of Record of Mines at Page 511 in the Office of the County Recorder of the aforesaid County of Gila to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in the said original Location Notice.

Dated and posted on the grounds this 15th day of February, 1955

George K. Angius.

Filed and recorded on February 16th, 1955, in Docket 25, Page 433, Records of Gila County, State of Arizona.

STATE OF ARIZONA)
) SS:
COUNTY OF GILA)

The GILA COUNTY ABSTRACT COMPANY hereby certifies that the foregoing FOUR (4) entries, make, constitute, form and complete a full, true and correct Abstract of Title, to the SKY NO. 2, SKY NO. 3, SKY NO. 4 and SKY NO. 5 Lode Mining Claims, situated in the El Capitan Mining District, Gila County, State of Arizona, and particularly described on the FOUR (4) next preceeding pages, as the same appear of record in the office of the County Recorder and the Clerk of the Superior Court, of Gila County, State of Arizona, aforesaid; all of which show said entries to be true this 16th day of February, A.D., 1955, at 4:45 o'clock P.M. SUBSEQUENT, HOWEVER, to the 10th day of February, A.D., 1955, at 4:15 o'clock P.M.

IN WITNESS WHEREOF, the GILA COUNTY ABSTRACT COMPANY has caused this Certificate to be signed by its Secretary thereunto duly authorized and its Corporate Seal to be hereunto affixed this 16th day of February, A.D., 1955, at 4:45 o'clock P.M.

GILA COUNTY ABSTRACT COMPANY

SECRETARY.

MODIFICATION OF LEASE

Reference is made to that certain Lease Agreement between Sherwood B. Owens, as Lessor, and S.H. Woodruff, as Lessee, recorded in Docket 28, Page 169, on March 28th, 1955, in the Office of the County Recorder of Gila County, which lease covers certain mining claims in the El Capitan Mining District.

In order to amplify and clarify said lease, we have agreed as follows:

S. H. Woodruff, and his assignee, has not personal liability for the payment of money accruing under said Lease either before or after its termination surrender or forfeiture, by either party If there is a default in the terms of the Lease, Owens only has the right to forfeit the Lease, retaining any moneys previously received as liquidated damages and take back the mining claims. Woodruff is only required to work said mining claims with a minimum of 480 man shifts per calendar year, and not 40 man shifts per month as set forth in the Lease.

Work has commenced under said Lease and the lease is now in good standing and in full force and effect.

Any and all sums received by Woodruff or his assignee, from the United States Government, or any other source, which is paid as a hauling charge or rebate for the hauling of ore from said mining claims, shall not be due as a part of the royalty, and Owens shall have not part thereof.

Woodruff and his assignee may cause the royalty payable under said Lease to be paid directly to said parties by the United States Government, or any Corporation or Agency receiving the ore and mining payment therefor.

Woodruff agrees to pay $10,000.00 to Owens upon the execution of this Agreement. It being understood that $5,000.00 thereof is the April 10, 1955 payment to be made under said lease and that $5,000.00 thereof is a partial payment of the $12,000.00 due on May 10th, 1955 as set forth in Paragraph 1, sub paragraph C, of said lease. The balance of $7,000.00, due on May 10, 1955, shall be added to the regular June 10, 1955 payment of $6,000.00 and shall be paid on June 10, 1955, that being the next payment date. There shall be no personal liability, for any of said payments by Woodruff or his assignee, Interstate Uranium Co. or its partners if said lease is terminated, surrendered or forfeited either before or after such payments become due.

Woodruff's Assignee of said Lease and Mining Claim, may cause said mining claim to be patented in Owens name at the sole cost and expense of Woodruff's assignee.

Said Lease is not modified in any other respect, or condition, and is hereby ratified and confirmed.

Dated, March 27th, 1955.

Sherwood B. Owens

I Agree To The Foregoing Conditions:

S.H. Woodruff.

Acknowledged as signed before Isabel M. Lauder, Notary Public, County of Pima, State of Arizona, on March 27th, 1955. (Seal). Commission Expires: 5/15/56.

Filed and recorded on March 28th, 1955, at 4:25 P.M. in Docket 28, at Page 185 thereof, Records of Gila County, State of Arizona, Fee No. 203209.

ASSIGNMENT OF LEASE

Reference is hereby made to that certain Agreement of Lease dated February 19, 1955, wherein SHERWOOD A. OWENS, is Lessor and S. H. WOODRUFF is Lessee, which lease covers those certain unpatented mining claims in the El Capitan Mining District in Gila County, Arizona, location notices of which are recorded in the office of the County Recorder of Gila County, Arizona, in the dockets and at the pages set opposite their names as follows, to-wit:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 1 Amended	25	135
Zora No. 2	6	513
Zora No. 2 Amended	25	136
Zora No. 3	6	514
Zora No. 3 Amended	25	137
Zora No. 4	6	515
Zora No. 4 Amended	25	138
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 2 Amended	25	430
Sky No. 3	6	509
Sky No. 3 Amended	25	431
Sky No. 4	6	510
Sky No. 4 Amended	25	432
Sky No. 5	6	511
Sky No. 5 Amended	25	433
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended (1st)	13	243
Fran No. 4 Amended (2nd)	25	139
Fran No. 5	9	484
Fran No. 5 Amended	25	140
Peanuts.	13	239

which agreement of lease was recorded March 28th, 1955, in the office of the County Recorder of Gila County, in Docket 28th, Page 169.

In consideration of the sum of $10.00 and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned, S.H. Woodruff, does hereby sell, assign, transfer and convey all of his right, title, interest and estate in and to said Agreement of Lease and in and to said mining claims above described to INTERSTATE URANIUM CO., a Limited Partnership, in which Limited Partnership S.H. Woodruff and C. Orin Swain are the General Partners. Said Limited Partnership shall have any and all rights in and to said mining claims arising out of said Agreement of Lease which the undersigned may or might have had. By recording this instrument, said Limited Partnership, INTERSTATE URANIUM CO. assumes the terms and conditions of said Agreement of Lease and agrees to comply therewith.

IN WITNESS WHEREOF, the undersigned has affixed his name and cause this Assignment of Lease to be delivered this 28th day of March, 1955.

S. H. Woodruff.

Acknowledged as signed on March 28th, 1955 before Winnifred Griffin Notary Public in and for Pima County, State of Arizona. (Seal) Commission Expires: December 21st, 1957.

Filed and recorded On March 28th, 1955, at 4:25 P.M. in Docket 28, at Page 187, Fee No. 203210, Records of Gila County, State of Arizona.

AGREEMENT OF LEASE

THIS AGREEMENT OF LEASE made and entered into this 19th day of February, 1955, by and between Sherwood B. Owens, of Tucson, Arizona, hereinafter called the Lessor, and S. H. Woodruff, of Los Angeles, California, hereinafter called the Lessee:

WITNESSETH, that the Lessor for and in consideration of the rents, royalties, covenants and agreements hereinafter expressed to be paid, ketp and performed by the Lessee, has leased, let and demised, and by these presents does lease, let and demise unto the Lessee that certain group of fifteen unpatented mining claims in the El Capitan Mining District in Gila County, Arizona, location notices of which are recorded in the office of the County Recorder of Gila County, Arizona, in the Dockets and at the Pages set opposite their names, to-wit:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 1 Amended	25	135
Zora No. 2	6	513
Zora No. 2 Amended	25	136
Zora No. 3	6	514
Zora No. 3 Amended	25	137
Zora No. 4	6	515
Zora No. 4 Amended	25	138
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 2 Amended	25	430
Sky No. 3	6	509
Sky No. 3 Amended	25	431
Sky No. 4	6	510
Sky No. 4 Amended	25	432
Sky No. 5	6	511
Sky No. 5 Amended	25	433
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended (1st)	13	243
Fran No. 4 Amended (2nd)	25	139
Fran No. 5	9	484
Fran No. 5 Amended	25	140
Peanuts	13	239

Consideration of a total royalty of THREE HUNDRED FIFTY THOUSAND ($350.000.00) DOLLARS, payable in installments. **********.

Royalties payable to: 1. George K. Anglus, of Miami, Arizona.
2. D. N. Zenovich, of Globe, Arizona.
**********.

Sherwood B. Owens, Lessor.
S.H. Woodruff, Lessee.

ACKNOWLEDGED AS SIGNED by Sherwood R. Owens, on February 19th, 1955 before Frank J. Barry Jr. Notary Public, County of Pima, State of Arizona. (Seal) Commission Expires: 5/3/55/

ACKNOWLEDGED as Signed by S.W. Woodruff on March 27th, 1955, before Mabel M. Lauder, Notary Public, County of Pima, State of Arizona. (Seal) Commission Expires: 5/13/56.

Filed and recorded on March 28th, 1955 at 4:25 P.M. in Docket 28th, Page 169, Fee No. 203208, Records of Gila County, Arizona.

THE COUNTY RECORDER
COMPARED
STATE OF ARIZONA

AGREEMENT "Exhibit "A".

This Agreement, made and entered into this 29th day of January, 1955, by and between GEORGE K. ANGIUS of Miami, Arizona, and D. N. ZENOVICH, of Globe, Arizona, hereinafter called SELLERS, and SHERWOOD B. OWENS of Tucson, Arizona, as BUYER herein,

WITNESSETH:

1. OPTION TO PURCHASE:

BUYER, for and in consideration of the sum of Ten Dollars cash in hand paid, receipt of which is hereby acknowledged, and the covenants herein set forth, is hereby granted by SELLERS the exclusive option to purchase, and the right to take possession of, to mine and to take ore from, on the terms hereinafter set forth, that certain group of fifteen unpatented mining claims in the El Capitan Mining District, in Gila County, Arizona, location notices of which are recorded in the office of the County Recorder of Gila County, Arizona, in the Dockets and at the Pages set opposite their names, to-wit:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 2	6	513
Zora No. 3	6	514
Zora No. 4	6	515
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 3	6	509
Sky No. 4	6	510
Sky No. 5	6	511
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended	13	243
Fran No. 5	9	484
Peanuts	13	239

Purchase price TWO HUNDRED FIFTY THOUSAND ($250,000.00) Dollars, to be paid in royalty payments, with Cash Payment of $10,000.00 on or before June 15, 1955, **********.

GEORGE K. ANGIUS
D. N. ZENOVICH (Sellers).

Sherwood B. Owens. (Buyer).

Acknowledged as signed on January 29th, 1955, before George K. Dea, Notary Public, Gila County, State of Arizona. (Seal) Comm. Expires: Jan. 14, 1957.

Filed and recorded on March 28th, 1955 at 4:25 P.M. in Docket 28, Page 176, Fee No. 203208, Records of Gila County, Arizona.

AMENDMENT TO AGREEMENT

This Amendment to Agreement made and entered into this 16th day of February, 1955, by and between George K. Angius of Miami, Arizona, and D. N. Zenovich, of Globe, Arizona, hereinafter called SELLERS, and SHERWOOD B. OWENS, of Tucson, Arizona, as BUYER herein.

WITNESSETH: that

WHEREAS, the parties hereto have entered into an Agreement on the 28th day of January, 1955, which said Agreement is recorded in the office of the County Recorder of Gila County, State of Arizona, in Docket 25 at page 37 thereof, and

WHEREAS, the property described in said Agreement is incompletely or defectively described,

NOW, THEREFORE, it is agreed as follows:

That said descriptions be amended to read as follows:

NAME OF CLAIM	DOCKET	PAGE
Zora No. 1	6	512
Zora No. 1 Amended	25	135
Zora No. 2	6	513
Zora No. 2 Amended	25	136
Zora No. 3	6	514
Zora No. 3 Amended	25	137
Zora No. 4	6	515
Zora No. 4 Amended	25	138
Sky No. 1	6	507
Sky No. 2	6	508
Sky No. 2 Amended		
Sky No. 3	6	509
Sky No. 3 Amended		
Sky No. 4	6	510
Sky No. 4 Amended		
Sky No. 5	6	511
Sky No. 5 Amended		
Fran No. 1	9	480
Fran No. 1 Amended	13	240
Fran No. 2	9	481
Fran No. 2 Amended	13	241
Fran No. 3	9	482
Fran No. 3 Amended	13	242
Fran No. 4	9	483
Fran No. 4 Amended (1st)	13	243
Fran No. 4 Amended (2nd)	25	139
Fran No. 5	9	484
Fran No. 5 Amended	25	140
Peanuts	13	239

It is further stipulated and agreed that the intention of the parties in said Agreement of January 28th, 1955, was to transfer the property above described and that this amendment is for the purpose of expressing said intention; it is further stipulated and agreed that the consideration for this amendment is the consideration supporting said Agreement, and $1.

This amendment has been requested by the Buyer in order to

transfer, according to his agreement with S.H. Woodruff of Los Angeles, California, the property herein described.

George K. Anglus
D. N. Zenovich (Sellers.

Sherwood B. Owens. (Buyer).

Acknowledged as signed on February 16th, 1955 by George K. Anglus and D.N. Zenovich, before George K. Dea, Notary Public, County of Gila, State of Arizona. (Seal). Commission Expires: Jan. 14, 1957.

Acknowledged as signed by Sherwood B. Owens on February 17th, 1955, before Frank J. Barry Jr., Notary Public, County of Pima, State of Arizona. (Seal) Commission Expires: 5/3/55.

Filed and recorded on March 28th, 1955, at 4:25 P.M. in Docket 28, Page 182, Fee No. 203208, Records of Gila County, State of Arizona.

CERTIFICATE OF LIMITED
PARTNERSHIP OF
INTERSTATE URANIUM CO.

We, the undersigned subscribers hereto, desiring to form and having formed a Limited Partnership pursuant to the laws of the State of Arizona, do certify as follows:

I.

The name of the firm under which said Limited Partnership is to be conducted is: INTERSTATE URANIUM CO.

II.

The purpose and character of the business to be conducted by said Limited Partnership is the acquiring of mining claims and mining property and producing, saving, refining, smelting and recovering valuable ores and products therefrom.

III.

The location of the principal place of business of this Limited Partnership is 1150 Prince Street, Tucson, Arizona.

IV.

The general partners are: S.H. WOODRUFF, C. ORIN SWAIN.

The Limited Partners are: N. J. WITTRY, LEROY R. HAYNES, HAMILTON G. CRADY, JOSEPH W. HERRELL, LENA C. GATCHELL, GLADYS M. BARNETT, EDNA RUDDER HILL, MARTHA E. RUDDER, LEWIS A. FISHER, ROY G. DECKER, R. WESLEY SANNER, EARL GILMORE, HENRY W. STONEBRAKER, L. G. MARSHALL, CALVIN B. CHAMBERLAIN, BERT M. CHRISTENSEN, EUNICE WILKS, THOMAS W. BEWLEY, H. L. KNOOP, WILLIAM M. LACSLEREN, JR.

V.

The term of this Limited partnership shall be twenty (20) years.

************************/.

Signed by all above General and Limited Partners, on March 24, 1955.

Acknowledged as signed on March 25th, 1955, before Naomi Dodge, Notary Public in and for the County of Los Angeles, State of California. (Seal) Commission Expires: May 25, 1957.

Acknowledged as signed on March 26th, 1955, before Shirley Deutsch, Notary Public, County of Pima, State of Arizona. (Seal) Commission Expires: 8/13/58.

Filed and recorded on March 28th, at 4:25 P.M. in Docket 28th, Page 189, Fee No. 203211, Records of Gila County, State of Arizona.

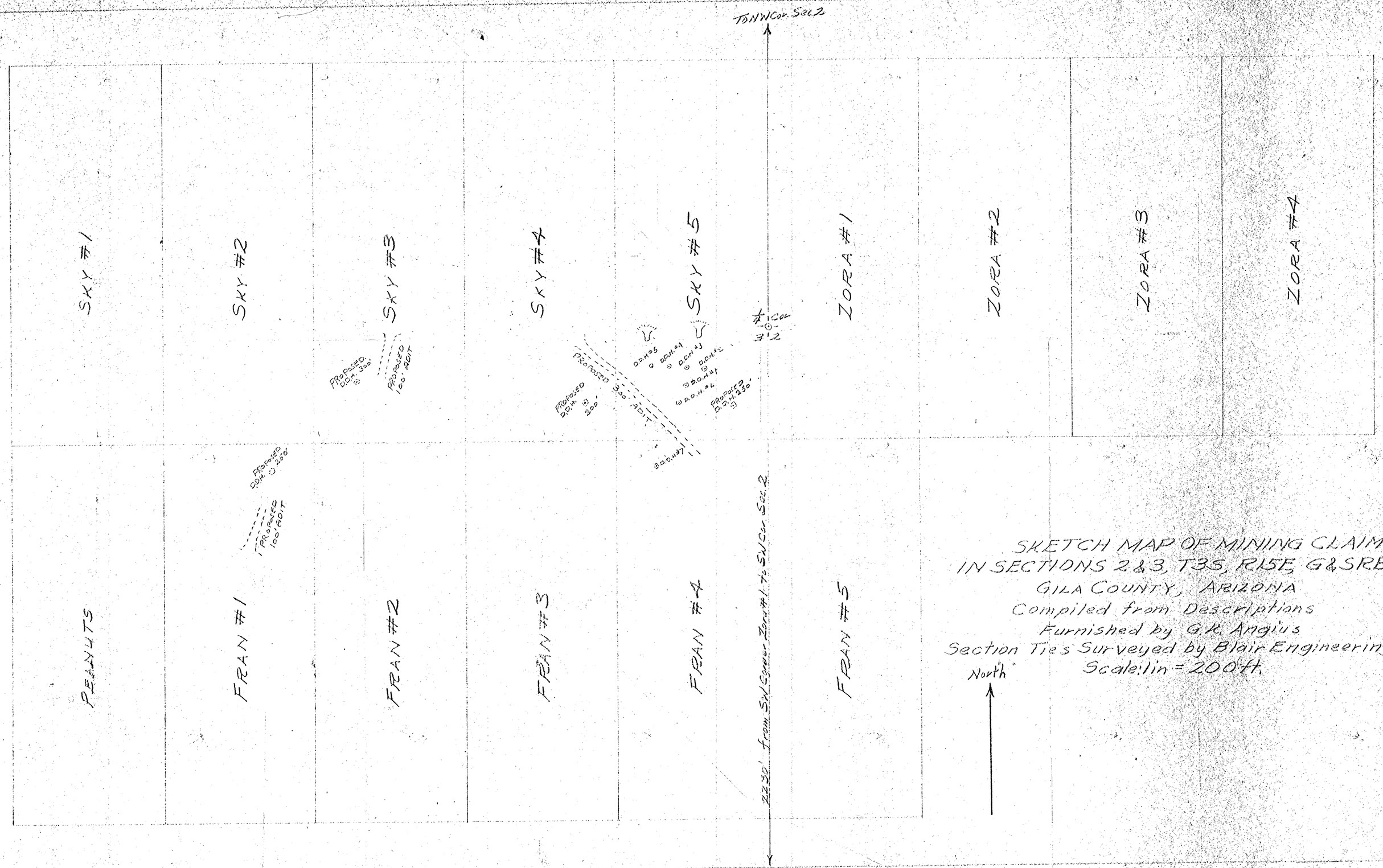
STATE OF ARIZONA)
) SS:
COUNTY OF GILA)

The GILA COUNTY ABSTRACT COMPANY hereby certifies that the foregoing SIX (6) entries, make, constitute, form and complete a full, true and correct Abstract of Title, to Lode Mining Claims known as the ZORA: SKY and FRAN GROUPS of Mining Claims as described on the caption hereof, situate, lying and being in the El Capitan Mining District, Gila County, State of Arizona, according to the records in the offices of the County Recorder, County Tax Collector and Clerk of Superior Court, all in And for the county of Gila and State of Arizona, which show said entries to be true on this the 29th day of March, A.D., 1955, at 2:15 o'clock P.M. SUBSEQUENT, HOWEVER, to the 16th day of February, A.D, 1955, at 4:45 o'clock P.M.

IN WITNESS WHEREOF, the Gila County Abstract Company has caused this Certificate to be signed by its Secretary thereunto duly authorized and its Corporate Seal to be hereunto affixed this 29th day of March, A.D., 1955, at 2:15 o'clock P.M.

GILA COUNTY ABSTRACT COMPANY

Secretary.

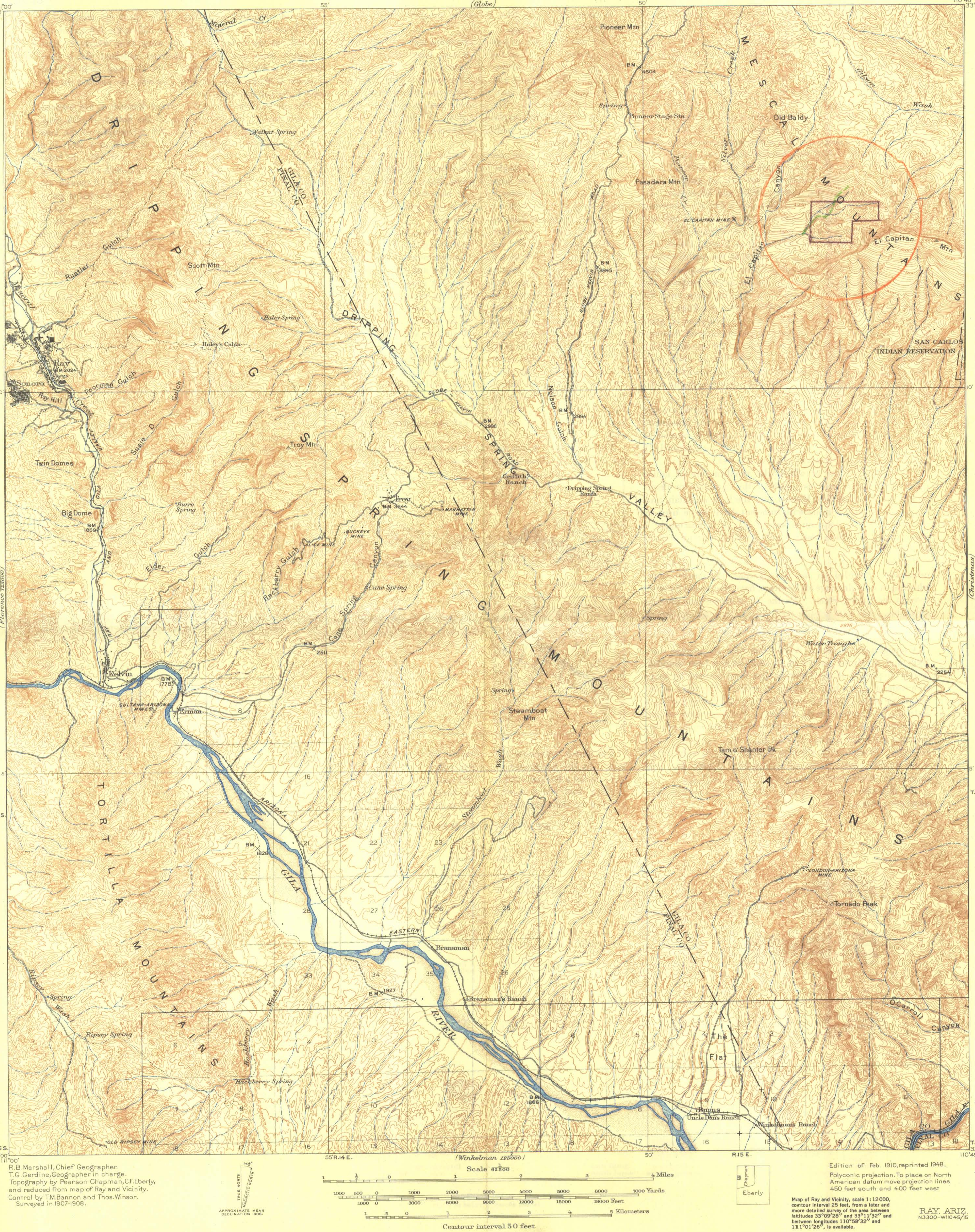


SKETCH MAP OF MINING CLAIMS
IN SECTIONS 2 & 3, T3S, R15E, G&SRB&M
GILA COUNTY, ARIZONA
Compiled from Descriptions
Furnished by G.R. Anglius
Section Ties Surveyed by Blair Engineering Co.
Scale: 1in = 200 ft.

Docket #OMEA-3923

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ARIZONA
RAY QUADRANGLE



R.B. Marshall, Chief Geographer.
T.G. Gerdine, Geographer in charge.
Topography by Pearson Chapman, C.F. Eberly,
and reduced from map of Ray and Vicinity.
Control by T.M. Bannon and Thos. Winsor.
Surveyed in 1907-1908.

Edition of Feb. 1910, reprinted 1948.

Polyconic projection. To place on North American datum move projection lines 450 feet south and 400 feet west

Map of Ray and Vicinity, scale 1:12000, contour interval 25 feet, from a later and more detailed survey of the area between latitudes 33°09'28" and 33°11'32" and between longitudes 110°58'32" and 111°01'26", is available.

RAY, ARIZ.
N3300-W11045/15

THE TOPOGRAPHIC MAPS OF THE UNITED STATES

RECEIVED
SEP 16 1955

The United States Geological Survey is making a series of standard topographic maps to cover the United States. This work has been in progress since 1882, and the published maps cover more than 47 percent of the country, exclusive of outlying possessions.

The maps are published on sheets that measure about 16½ by 20 inches. Under the general plan adopted the country is divided into quadrangles bounded by parallels of latitude and meridians of longitude. These quadrangles are mapped on different scales, the scale selected for each map being that which is best adapted to general use in the development of the country, and consequently, though the standard maps are of nearly uniform size, the areas that they represent are of different sizes. On the lower margin of each map are printed graphic scales showing distances in feet, meters, miles, and kilometers. In addition, the scale of the map is shown by a fraction expressing a fixed ratio between linear measurements on the map and corresponding distances on the ground. For example, the scale $\frac{1}{62,500}$ means that 1 unit on the map (such as 1 inch, 1 foot, or 1 meter) represents 62,500 of the same units on the earth's surface.

Although some areas are surveyed and some maps are compiled and published on special scales for special purposes, the standard topographic surveys and the resulting maps have for many years been of three types, differentiated as follows:

1. Surveys of areas in which there are problems of great public importance—relating, for example, to mineral development, irrigation, or reclamation of swamp areas—are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{31,680}$ (1 inch = one-half mile) or $\frac{1}{24,000}$ (1 inch = 2,000 feet), with a contour interval of 1 to 100 feet, according to the relief of the particular area mapped.

2. Surveys of areas in which there are problems of average public importance, such as most of the basin of the Mississippi and its tributaries, are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{62,500}$ (1 inch = nearly 1 mile), with a contour interval of 10 to 100 feet.

3. Surveys of areas in which the problems are of minor public importance, such as much of the mountain or desert region of Arizona or New Mexico, and the high mountain area of the northwest, are made with sufficient detail to be used in the publication of maps on a scale of $\frac{1}{125,000}$ (1 inch = nearly 2 miles) or $\frac{1}{250,000}$ (1 inch = nearly 4 miles), with a contour interval of 20 to 250 feet.

The aerial camera is now being used in mapping. From the information recorded on the photographs, planimetric maps, which show only drainage and culture, have been made for some areas in the United States. By the use of stereoscopic plotting apparatus, aerial photographs are utilized also in the making of the regular topographic maps, which show relief as well as drainage and culture.

A topographic survey of Alaska has been in progress since 1898, and nearly 44 percent of its area has now been mapped. About 15 percent of the Territory has been covered by maps on a scale of $\frac{1}{500,000}$ (1 inch = nearly 8 miles). For most of the remainder of the area surveyed the maps published are on a scale of $\frac{1}{250,000}$ (1 inch = nearly 4 miles). For some areas of particular economic importance, covering about 4,300 square miles, the maps published are on a scale of $\frac{1}{62,500}$ (1 inch = nearly 1 mile) or larger. In addition to the area covered by topographic maps, about 11,300 square miles of southeastern Alaska has been covered by planimetric maps on scales of $\frac{1}{125,000}$ and $\frac{1}{250,000}$.

The Hawaiian Islands have been surveyed, and the resulting maps are published on a scale of $\frac{1}{62,500}$.

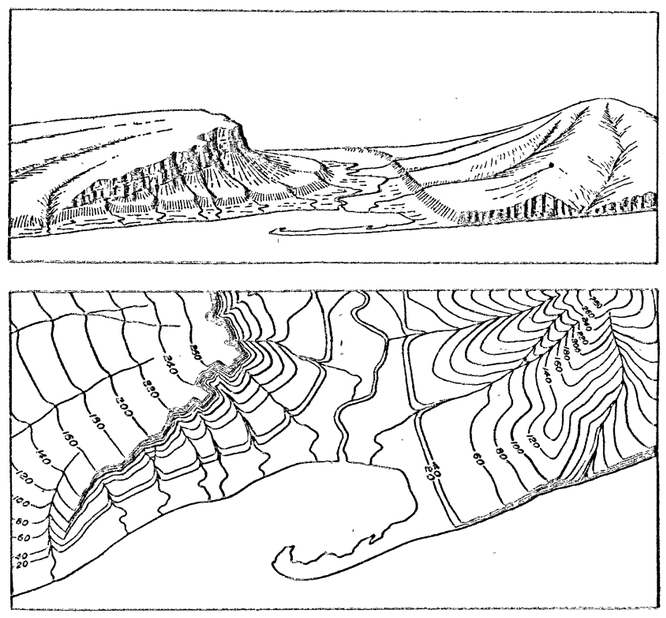
A survey of Puerto Rico is now in progress. The scale of the published maps is $\frac{1}{30,000}$.

The features shown on topographic maps may be arranged in three groups—(1) water, including seas, lakes, rivers, canals, swamps, and other bodies of water; (2) relief, including mountains, hills, valleys, and other features of the land surface; (3) culture (works of man), such as towns, cities, roads, railroads, and boundaries. The symbols used to represent these features are shown and explained below. Variations appear on some earlier maps, and additional features are represented on some special maps.

All the water features are represented in blue, the smaller streams and canals by single blue lines and the larger streams by double lines. The larger streams, lakes, and the sea are accentuated by blue water lining or blue tint. Intermittent streams—those whose beds are dry for a large part of the year—are shown by lines of blue dots and dashes.

Relief is shown by contour lines in brown, which on a few maps are supplemented by shading showing the effect of light thrown from the northwest across the area represented, for the purpose of giving the appearance of relief and thus aiding in the interpretation of the contour lines. A contour line represents an imaginary line on the ground (a contour) every part of which is at the same altitude above sea level. Such a line could be drawn at any altitude, but in practice only the contours at certain regular intervals of altitude are shown. The datum or zero of altitude of the Geological Survey maps is mean sea level. The 20-foot contour would be the shore line if the sea should rise 20 feet above mean sea level. Contour lines show the shape of the hills, mountains, and valleys, as well as their altitude. Successive contour lines that are far apart on the map indicate a gentle slope, lines that are close together indicate a steep slope, and lines that run together indicate a cliff.

The manner in which contour lines express altitude, form, and grade is shown in the figure below.



The sketch represents a river valley that lies between two hills. In the foreground is the sea, with a bay that is partly enclosed by a hooked sand bar. On each side of the valley is a terrace into which small streams have cut narrow gullies. The hill on the right has a rounded summit and gently sloping spurs separated by ravines. The spurs are truncated at their lower ends by a sea cliff. The hill at the left terminates abruptly at the valley in a steep scarp, from which it slopes gradually away and forms an inclined tableland that is traversed by a few shallow gullies. On the map each of these features is represented, directly beneath its position in the sketch, by contour lines.

The contour interval, or the vertical distance in feet between one contour and the next, is stated at the bottom of each map. This interval differs according to the topography of the area mapped: in a flat country it may be as small as 1 foot; in a mountainous region it may be as great as 250 feet. In order that the contours may be read more easily certain contour lines, every fourth or fifth, are made heavier than the others and are accompanied by figures showing altitude. The heights of many points—such as road intersections, summits, surfaces of lakes, and benchmarks—are also given on the map in figures, which show altitudes to the nearest foot only. More precise figures for the altitudes of benchmarks are given in the Geological Survey's bulletins on spirit leveling. The geodetic coordinates of triangulation and transit-traverse stations are also published in bulletins.

Lettering and the works of man are shown in black. Boundaries, such as those of a State, county, city, land grant, township, or reservation, are shown by continuous or broken lines of different kinds and weights. Public roads suitable for motor travel the greater part of the year are shown by solid double lines; poor public roads and private roads by dashed double lines; trails by dashed single lines. Additional public road classification if available is shown by red overprint.

Each quadrangle is designated by the name of a city, town, or prominent natural feature within it, and on the margins of the map are printed the names of adjoining quadrangles of which maps have been published. More than 4,100 quadrangles in the United States have been surveyed, and maps of them similar to the one on the other side of this sheet have been published.

Geologic maps of some of the areas shown on the topographic maps have been published in the form of folios. Each folio includes maps showing the topography, geology, underground structure, and mineral deposits of the area mapped, and several pages of descriptive text. The text explains the maps and describes the topographic and geologic features of the country and its mineral products. Two hundred twenty-five folios have been published.

Index maps of each State and of Alaska and Hawaii showing the areas covered by topographic maps and geologic folios published by the United States Geological Survey may be obtained free. Copies of the standard topographic maps may be obtained for 10 cents each; some special maps are sold at different prices. A discount of 40 percent is allowed on an order amounting to $5 or more at the retail price. The discount is allowed on an order for maps alone, either of one kind or in any assortment, or for maps together with geologic folios. The geologic folios are sold for 25 cents or more each, the price depending on the size of the folio. A circular describing the folios will be sent on request.

Applications for maps or folios should be accompanied by cash, draft, or money order (not postage stamps) and should be addressed to

THE DIRECTOR,
United States Geological Survey,
Washington, D. C.

November 1937.

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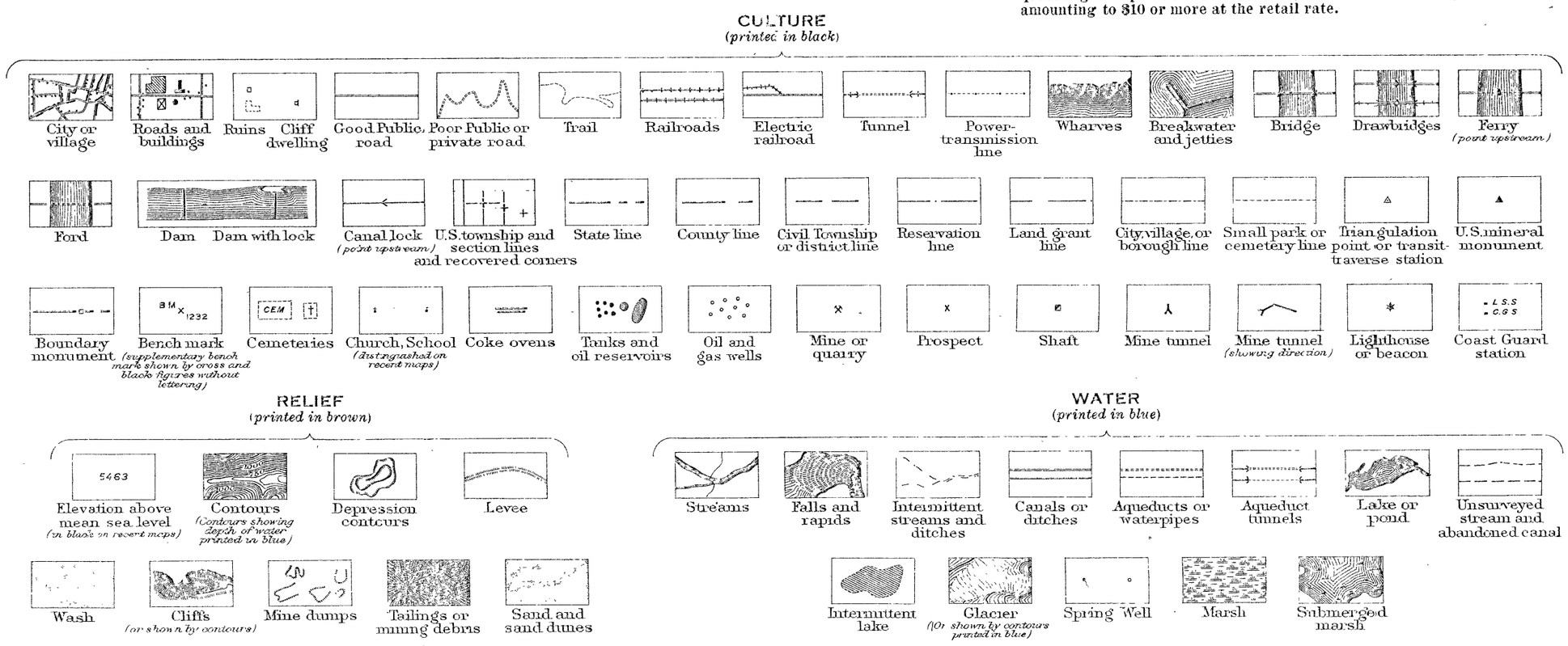
NOTE:—Effective on and after October 1, 1946, the price of standard topographic quadrangle maps will be 20 cents each, with a discount of 20 percent on orders amounting to $10 or more at the retail rate.