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To:	CODE 700, Rm. 4640	Date	10-27-52
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INT.-DUP. SEC., WASH., D.C. 98868

FILE COPY
SURNAME:

Schmidt
File
Kunkel
Hedges
Schmidt
Fitzsimmons

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

MAY 7 1953

Mr. [illegible] Peter, President
Val Pais Mining Engineering Co.
1245 Pecan Avenue
Grand Junction, Colorado

Re: Docket [illegible]-2743 (Uranium)
Lavender and Conglomerate Claims
San Juan County, Utah

Dear Mr. Peter:

This acknowledges receipt of your letter of April 16 concerning the interest being taken by the Atomic Energy Commission in the general area of the subject mining property.

We were interested in the points brought out in your letter and immediately made inquiries of the Atomic Energy Commission. As a result it is our understanding that they do not have any definite plans at present for drilling the Val Pais property nor for drilling in that general area.

After carefully reviewing your application and all the data available to us from other Government sources, we regret to inform you that the subject property is not believed to be sufficiently promising to justify Government participation.

If future work on your property or in the immediate area by yourselves or the Atomic Energy Commission should reveal evidence which could materially alter this decision, please be assured we will be glad to consider a new application.

Sincerely yours,
C. C. Mittenderf
Administrator

(for) P.H. 5-7-53

RWSchmidt/ccf 5/4/53

cc to: ~~Oper. Committee~~
Wells Miles
Docket
Messrs. HKeiser, Room 3011
APutler, Jr. Room 3206 AEC
Ellis
Schmidt

AEC Field Team, Region IV (2)

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : F. Somer Schmidt, Rm 4640 DATE: 4-30-53

FROM : J. P. Hosted, AEC

SUBJECT: DMEA-2748

AEC has no plans to drill on the Mal Pais Mining & Engineering Co. property.

AEC may or may not drill in the general area.

AEC concurs in DMEA denial

[illegible] 4/28/53.

DMEA 2748 Mal Pais Mining and Engineering Co. Uranium

Notes to check up with the A.E.C. 4/23/53

Letter from Peters President stating 4/16/53 that this area is at present being surveyed geologically for the favorability of an AEC drilling program.

" within the same week your rejection is received, we are amazed to learn that the AEC is beginning to take an intensive interest in the same general area having moved both personnel and equipment into the area."

The report of the Field team on whidh the denial was based was not dated but it can be assumed that it was either in Feb 1953 or before.

The denial was dated April 6/53

and this letter from Peters is dated April 16.

We should ascertain from the AEC whether there is any change in this matter.

Can we ascertain whether the AEC plans to drill this property or whether there is nothing new and Mr. Peters is misinformed.

This letter of Peters must be answered.

In order to stand pat on our Field Report we must in some way state tht the applicant is misinformed .

I will appreciate any information we can get about this

This file sent to Joe Hosted 4/27 -- He called Grand Junction as per attached memo.

Schmidt

Hosted Tom 3212
X 5385

4/22/53 gla

MAL PAIS MINING & ENGINEERING CO.
1245 Mesa Avenue
Grand Junction, Colorado

April 16, 1953

DMEA 2748

U. S. Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 20 1953

Attn: Mr. C. O. Mittendorf

Dear Mr. Mittendorf:

We are in receipt of your letter of April 9, 1953, Re: Docket No. DMEA-2748 (Uranium), Lavender and Conglomerate Claim Groups, San Juan County, Utah. In compliance with paragraph number four, we would like to ask your reconsideration of our application based on the following facts:

1. This area is at present being surveyed geologically for the favorability of an AEC drilling program. From past surveys of the same nature, it is not foolhardy to expect an approval for exploratory drilling by the AEC. This I have confirmed at the AEC office here in Grand Junction. They admittedly are looking that area over rather closely.

2. These claims are situate about 16 air miles from the now famous Utex mine, commonly known as Steen's mine, in San Juan County, Utah. This mine, as you must know, is one of the top producers and has the best potential as regards future ore reserves. Our claims are in the same formation as the Utex property.

3. The Utex was brought in after your survey crew made their report on our claims. Therefore, they lacked the experience of witnessing a mine such as the Utex being discovered in the same formation in which our claims are located.

4. Our claims show definite mineralization, and, provided we had used a core drill, I am convinced we would have found ore. Unfortunately, our wagon drill did not render sufficient data to warrant our exploration by drifting. Please be advised that financial reasons alone kept this company from pursuing an underground exploratory program.

5. It appears rather in conflict to be in receipt of a rejection for exploration based presumably on unworthy ground by your agency, while within the same week your rejection is received, we are amazed to learn that the AEC is beginning to take an intensive interest in the same general area, having moved both personnel and equipment into the area.

6. I am led to believe that the DMEA is in the exploration business to find possible mineralized bodies which might be productive to ore. Yet upon application to explore an area which private capital has drilled and proven to be mineralized, the DMEA rejects the ground as unworthy. It is not foolish to say that one underground drift about 70 feet in length into our claims may produce a sizeable, estimated 3000 tons of low grade U_3O_8. This may not look like much to the DMEA but in the uranium business it is considered somewhat worthy of mining. Aside from the body which we believe to exist, valuable information could be obtained regarding this formation by underground exploration of this area.

7. We would like to suggest that subsequent reports and examinations by your department be carried out with as much haste as possible inasmuch as, like ourselves, many applicants lease the ground for which they request loans. I believe you can imagine the difficulty in meeting work clauses in leases while waiting six to eight months for the results of a DMEA loan application.

We urgently request that you reconsider our application and forward your findings at your earliest convenience.

Yours truly,

P. W. Peter

P. W. Peter
President

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

Memorandum April 6, 1953

SUMMARY OF PROPOSED PROJECT

Docket No. DMEA-2748
Applicant: Mal Pais Mining and Engineering Co.
Subject: Denial of application
Commodity: Uranium
Location of property: Lavender and Conglomerate Claim Groups, San Juan County, Utah (Region IV)
Amount of application: $58,350.00
Date of application: October 16, 1952

Outline of project: The applicant has proposed to explore the flat-lying ore horizon by wagon (percussion) drilling in areas beyond the outcrop, as well as to extend existing workings to intersect holes already drilled by the applicant.

Field Team Report: Dated: (Undated) Joint engineering and geologic report by H. K. Thurber, Jr., C. G. Tillman and B. F. Sorenson, transmitted with Field Team recommendations dated March 12, 1953.

Recommendations: Unlikely that proposed exploration will disclose a significant amount of uranium; denial recommended.

Commodity Members' comments:

Bureau of Mines: H. D. Keiser (3/30/53)
Recommended that the Field Team report be approved, and that the application be denied.

Geological Survey: Arthur P. Butler, Jr. (3/26/53)
Concurs with the interpretation of examining members of the Field Team that the assays and other available information suggest that exploration on these claims is unlikely to result in discovery of a significant amount of uranium ore; denial recommended.

Rare and Misc. Metals Division Engineer: F. Sommer Schmidt

Denial letter written on basis of Field Team report and comments by USGS and USBM commodity members.

Ernest Wm. Ellis
Chief, Rare & Misc. Metals Division

FILE COPY
SURNAME:

Schmidt
Ellis
Kimbrel
Hedges
Johnson

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

Mrs. Anna Therrell, Sec.-Treas.
Mal Pais Mining and Milling Co.
1215 Mesa Avenue
Grand Junction, Colorado

APR 9 1953

Re: Docket No. DMA-2718 (Uranium)
Lavender and Non Lamarate Claim
Groups, San Juan County, Utah

Dear Mrs. Therrell:

Reference is made to your application for Government aid on the proposed captioned project estimated to cost $8,350.00.

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

A careful study of your application and data available to this Agency, and an examination of the property concerned, reveal that the probability of disclosing mirable reserves by your proposed exploration program is not believed to be sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration aid is denied.

If future work at your property reveals evidence which could materially alter this opinion, please be assured we will be glad to consider a new application.

Sincerely yours,

J.C. 4/9/53

C. O. Mittenhof (for)
Administrator

FSSchmidt/gla 4-6-53
cc to: Adm.Mining File
Operating Committee
Docket
Messrs. APButler, Jr. Rm. 3206 DMA
HDKeiser, Rm. 3647
Ellis
Schmidt
DMA Field Team, Region IV (2)

4/1/53 gla

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

March 30, 1953

Memorandum

To: Ernest William Ellis, Chief, Rare and Miscellaneous Metals Division, DMEA, Room 4640

From: H. D. Keiser, Commodity-Industry Analyst, Rare and Precious Metals Branch

Subject: Final report DMEA Docket 2748, Mal Pais Mining and Engineering Co., San Juan County, Utah.

I have reviewed the subject report and discussed it with Arthur P. Butler, Geological Survey Member, and Joseph O. Hosted, representative of the Atomic Energy Commission.

It is recommended that the report be approved, and that the application involved be denied.

The report has been forwarded to the Chief, Minerals Division, in accord with the routing slip attached thereto.

H. D. Keiser

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 31 1953

cc: J. O. Hosted (2)

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

March 30, 1953

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The report has been forwarded to the Chief, Minerals Division, in accord with the routing slip attached thereto.

H. D. Keiser

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 31 1953

cc: J. O. Hosted (2)

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : E. Wm. Ellis, DMEA Member
Uranium Commodity Committee

DATE: March 26, 1953

FROM : Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

SUBJECT: Final Report, DMEA Docket 2748 (Uranium), Mal Pais Mining and Engineering Company, Applicant, San Juan County, Utah; Conglomerate and Lavender claim groups, Secs. 9 and 17, T. 31 S., R. 21 E., San Jaun County, Utah.

I have reviewed the report of the examining members of the Field Team concerning the property identified in the subject above. I concur with their interpretation that the assays and other available information suggest that exploration on these claims is unlikely to result in discovery of a significant amount of uranium ore , and that Government assistance for exploration be denied.

Arthur P. Butler, Jr.

Arthur P. Butler, Jr.

Copy to: E. Wm. Ellis (2)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 27 1953

IN REPLY REFER TO:

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

E. Wm. Ellis, DMEA Member
Uranium Commodity Committee
Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

March 26, 1953

Final Report, DMEA Docket 2748 (Uranium), Mal Pais Mining and Engineering Company, Applicant, San Juan County, Utah; Conglomerate and Lavender claim groups, Secs. 9 and 17, T. 31 S., R. 21 E., San Jaun County, Utah.

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Arthur P. Butler, Jr.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAR 27 1953

Copy to: E. Wm. Ellis (2)

IN REPLY REFER TO:

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

E. Wm. Ellis, DMEA Member
Uranium Commodity Committee
Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

March 26, 1953

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Arthur P. Butler, Jr.

Copy to: E. Wm. Ellis (2)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 27 1953

3/24/53 gla

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

224 New Customhouse
Denver 2, Colorado

March 12, 1953.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 19 1953

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration.

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2748 (Uranium), Mal Pais Mining and Engineering Co., San Juan County, Utah.

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

A field examination indicates it is unlikely that the proposed exploration will disclose a significant amount of uranium.

We recommend that the request for exploration aid in the amount of $58,350.00 be denied.

W. H. King
W. H. King

Enclosures

A. H. Koschmann
A. H. Koschmann

Reviewed by
DMEA OPERATING COMMITTEE
3-23-53
(date)

3/19/53 gla

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

224 New Customhouse
Denver 2, Colorado

March 12, 1953.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 19 1953

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We recommend that the request for exploration aid in the amount of $58,350.00 be denied.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

March 12, 1953.

Memorandum

To: DMEA Field Team, Region IV

From: Chief, Mining Division, Region IV

DEPARTMENT OF THE INTERIOR
Bureau Mines Administration
RECEIVED
MAR 19 1953

Subject: Final Report, DMEA Docket 2748, (Uranium) Mal Pais Mining and Engineering Co., San Juan County, Utah.

Enclosed are eleven copies of a joint engineering and geologic report on the subject docket.

The property has been discussed with A.E.C. representatives.

The field examiners concur in the belief that a significant amount of uranium would not be discovered by the applicant's proposed work, which was estimated to cost $58,350.00.

We recommend that the application be denied.

for John F. Shaw
W. N. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

February 26, 1953

Memorandum

To: W. H. King, Chief, Mining Division, Region IV

From: Chief, Minerals Development Branch, Mining Division, Region IV

Subject: DMEA 2748, Mal Pais Mining and Engineering Co., San Juan County, Utah

Enclosed are the original and 10 copies of an engineering and geologic report covering an examination of the subject property by personnel from this office and from the Geological Survey office. Copies of a section on Summary, Conclusions and Recommendations are also attached.

Uranium mineralization on property of the Mal Pais Mining and Engineering Co. occurs in the Shinarump conglomerate a short distance above the bottom of the formation. Mineralization is associated with "trash carbon" and also is found in small quantities along clay or mudstone lenses. The results of the examination and study of information obtained from company percussion drilling indicate that uranium mineralization is low-grade and of minor importance. The examining engineer and geologists believe that exploration as proposed by the applicant will not disclose uranium ore of significance and recommend that the loan be denied. I concur with this recommendation.

A copy of the brochure and other information is attached.

Stephen R. Wilson
Stephen R. Wilson

Enclosures 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

March 4, 1953

Memorandum

To: W. H. King, Chief, Mining Division, Region IV

From: Chief, Minerals Development Branch, Mining Division, Region IV

Subject: DMEA 274S, Mal Pais Mining and Engineering Co., San Juan County, Utah.

A joint engineering and geologic report covering examination of the subject property was transmitted to your office February 26, 1953. The property was discussed with representatives of the AEC and data included in the joint report. This information concerning AEC discussions was omitted from the transmittal letter accompanying the report.

Stephen R. Wilson

Stephen R. Wilson

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By H. K. Thurber, Jr., C. G. Tillman and B. F. Sorensen

Mal Pais Mining and Engineering Co. has requested a DMEA loan to conduct work on uranium property in San Juan County, Utah. The property was examined during January 1953 by personnel from the Bureau of Mines and Geological Survey. This report appraises the feasibility of the proposed exploration.

Mineralization on the Mal Pais property is found in the Shinarump conglomerate, a few feet above the bottom of the formation. This formation outcrops for a considerable distance on the applicant's property. Uranium minerals occur associated with trees and other bits of organic matter, in small quantities along clay or mudstone lenses a few inches thick, and as a coating on small, nearly vertical fractures.

The applicant has proposed an exploratory program to consist of percussion drill holes and underground work on five claims, with a total estimated cost of $58,350. Results of the examination and study of data from the previous percussion drilling by the applicant indicate that the uranium mineralization is low-grade and of minor importance. The radioactivity apparently decreases in depth below the surface as indicated by observation of the underground workings. A few tons of low-grade ore may be inferred from existing exposures.

Recommendation is made that the requested loan be denied, as it is believed unlikely that the proposed exploration will disclose uranium mineralization of significance.

MAL PAIS MINING AND ENGINEERING COMPANY
SAN JUAN COUNTY, UTAH
DMEA-2748
Uranium

Engineering and Geologic Report

By H. K. Thurber, Jr.
Mining engineer
Bureau of Mines

and

C. G. Tillman and
B. F. Sorensen
Geologists
Geological Survey

MAL PAIS MINING AND ENGINEERING COMPANY
SAN JUAN COUNTY, UTAH

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ILLUSTRATIONS

Fig. 1 Location map, Mal Pais Mining and Engineering Co., San Juan County, Utah
Fig. 2 Geologic map

INTRODUCTION

The Mal Pais Mining and Engineering Co., Grand Junction, Colorado, has applied for a DMEA exploratory loan (docket DMEA-2748) of $58,350 to explore uranium mineralization on the company's property in San Juan County, Utah. The uranium mineralization occurs in the Upper Triassic Shinarump formation.

An examination of the property was made January 15, 1953, by H. K. Thurber, Jr., Bureau of Mines, and C. G. Tillman and B. F. Sorensen, geologists of the Geological Survey. The existing workings were entered, samples taken, and location of wagon drill holes on the surface noted. The outcrop of the ore-bearing horizon was observed for considerable distance along the claims.

The applicant proposes to explore the flat-lying ore horizon by wagon (percussion) drilling in areas beyond the outcrop, as well as to extend existing workings to intersect holes already drilled by the applicant. This report appraises the feasibility of the exploratory program.

LOCATION AND PHYSICAL FEATURES

The property of the Mal Pais Mining and Engineering Co. lies in Secs. 9 and 17, T. 31 S., R. 21 E., S.L.B. & M., San Juan County, Utah. The claims cover the west rim of Lavender Canyon, approximately 1 mile from its confluence with Indian Creek, a major drainage on the northwest slopes of the Abajo Mountains. The area has been surveyed and a standard section corner was found during the examination.

The property is reached from a point on U. S. Highway 160 approximately 16 miles north of Monticello, Utah, via a county-maintained, dirt road approximately 22 miles to the Dugout Ranch, thence by truck trail 1½ miles to the property.

The road can be traveled in all weather, but the last 1½ miles is, in part, in the wash of Lavender Canyon; thus the property would be isolated during, and for a short time after, a rain storm. An alternate route to eliminate this condition could be constructed easily on dry benches. All of the area proposed to be drilled by the applicant may be reached by jeep or similar vehicle.

The property lies in an arid area exhibiting typical vegetation of the region. The area of proposed work is either bare sandstone or very sandy soil supporting pinon and cedar trees of moderate size, with brush and cactus. Water for any purpose must be hauled from Indian Creek, a distance of approximately 1½ miles.

The structures on the property consist of a small, recently built cabin and a crudely constructed ore chute at one of the adits.

HISTORY AND PRODUCTION

The group of 5 claims upon which the applicant proposes to work is part of a larger number of claims leased by Mal Pais Mining and Engineering Co. from the Intermountain Uranium Corp., Monticello, Utah. The latter corporation drove two short adits on the Conglomerate No. 1 and Conglomerate No. 2 claims and a short adit on the Lavendar No. 2

claim before the applicant obtained the property on lease, August 26, 1952.

No record of ore shipments resulting from this work is available, but results of samples taken at the time of the examination, and observation of the workings lead to the belief that the estimate of production given by the applicant in written material supplemental to his application was overstated.

OWNERSHIP AND EXTENT

The applicant proposes to conduct exploratory work on a group of five contiguous claims which are part of 41 claims in the immediate area leased from the Intermountain Uranium Corp. of Monticello, Utah, apparent holders of the claims by right of location. A copy of the lease is attached to the application. The recording information on the five claims upon which work is proposed are listed as follows:

Claim	Book	Page	Recording Date
Conglomerate No. 1	R-2	353	Dec. 1, 1950
Conglomerate No. 2	R-2	353	Dec. 1, 1950
Lavendar No. 1	R-2	354	Dec. 1, 1950
Lavendar No. 3	R-3	287	April 20, 1951
Lavendar No. 4	T-8	168	April 3, 1952

The above claims are recorded in the office of the County Clerk, Monticello, San Juan County, Utah.

Inquiry at the Salt Lake office, Bureau of Land Management, reveals that there are no current Federal oil and gas leases in the area of the applicant's property.

GEOLOGY

The Mal Pais Mining and Engineering Co. claims are on the flanks of a mesa on the west side of Lavender Canyon a few miles northwest of the Abajo Mountains (fig. 2). The mesa is capped by cliffs of the Lower Jurassic Wingate sandstone. The underlying Upper Triassic Chinle formation slopes downward to a bench about 1,500 feet wide which is supported by the Upper Triassic Shinarump sandstone and conglomerate. Underlying the Shinarump and forming the lowest slopes of the mesa is the top of the Lower Triassic Moenkopi formation. These formations all appear to be nearly flat-lying.

ORE DEPOSITS

Uranium mineralization in the area examined is confined to the bottom few feet of the Upper Triassic Shinarump conglomerate. The Shinarump here is composed dominantly of brown, lenticular conglomerate and conglomeratic sandstone interbedded with siltstone of minor thickness. Normally, the clay-like or sandy groundmass of the dominant units is grey and the pebbles are red, black or green. Alteration of the conglomerate by mineralizing solutions has resulted in a white groundmass and pebbles varying from grey to rusty brown.

The Shinarump formation varies from 50 to 75 feet in thickness on the Conglomerate Nos. 1 and 2 claims and 75 to 100 feet on the Lavendar No. 1 claim. The largest observed scour channel is approximately 10 feet thick and is weakly mineralized.

The Shinarump conglomerate contains a moderate amount of "trash carbon" at several points on the property, but only rarely is uranium present at these points. Uranium minerals are also found in small quantities along clay or mudstone lenses a few inches thick, and coating small, nearly vertical fractures.

Malachite, probable bornite, and pyrite, were observed along the rim and in the workings on the Conglomerate No. 2 claim. Calcite masses and seams are fairly abundant in several of the workings. Gypsum seams are also present.

ORE RESERVES

The applicant estimates that 1,500 tons of ore, averaging 0.15 percent U_3O_8, is present on the claims. There are no assay data available covering the drill holes completed by the company to support this grade. The DMEA loan application and supplementary material indicates that a total of 44 wagon drill holes have been drilled on the property to a depth of approximately 100 feet. The results of the applicant's radiometric survey of these holes is believed to be inconclusive concerning grade and thickness. A calculation of a weighted average of chemical assay results from wagon drill hole

samples presented in supplemental material to the DMEA loan application shows a grade of 0.076 percent U_3O_8 over an average thickness of 3.7 feet. It will be noted that Bureau of Mines samples from the adit face, as well as the ore-pile grab, are considerably lower than the assay results presented by the applicant.

Samples were taken in the adits and on the surface near the adits and a grab sample was taken from ore sacked for shipment. Assays of these samples are listed as follows:

Sample No.	Description	Percent			
		U_3O_8	V_2O_5	Cu	$CaCO_3$
1	1.3-foot cut in clay at bottom of face, west workings, Conglomerate No. 2 claim	0.004	0.06	1.33	8.4
2	Rim between locations of samples 1 and 3	0.126	0.11	0.85	21.6
3	Grab of 6 sacks on loading platform	0.105	0.04	0.18	27.85
4	Eastern workings, Conglomerate No. 2 claim	0.012	0.06	0.61	10.0
5	Workings, Lavendar No. 1 claim	0.036	0.02	<0.01	15.9

An estimate based on the sample and assay data above and excluding the mineralized area outlined by the applicant's drilling, shows less than 100 tons of inferred ore averaging approximately 0.10 U_3O_8. Although the two samples containing the greatest content of U_3O_8 are above the minimum grade acceptable in Colorado Plateau mills and buying stations,

experience of operators indicates that little or no profit is realized from the mining of this grade ore.

PRESENT STATUS

The property was idle at the time of examination and no facilities or equipment were present with the exception of the cabin mentioned in an earlier paragraph.

PROJECT PROPOSALS AND COSTS

The applicant proposes to drill the 5 claims involved in the application on 100-foot grids, using a truck-mounted wagon (percussion) drill. The applicant estimates that the holes will be an average of 100 feet deep and the proposed pattern will require 96 holes, which leads to the requirement of 9,600 linear feet of hole per claim. At the applicant's estimated cost of $0.50 per foot, this would require approximately $4,800 per claim, or approximately $24,000 total cost for the five-claim group involved.

In addition to the proposed drilling, the applicant plans to do underground work to extend existing workings, apparently to drive to uranium mineralization encountered by previous drilling. Equipment and labor involved in this underground work is estimated to cost $34,350.

The total project cost is estimated to be $58,350. Based upon the results of the examination and perusal of sample records submitted

by the applicant, it is the opinion of the field team that this expenditure is not warranted.

CONCLUSIONS AND RECOMMENDATIONS

Uranium mineralization on the applicant's property occurs in the Upper Triassic Shinarump conglomerate.

Samples taken at the time of examination and results of percussion drilling by the applicant indicate that the uranium mineralization is low-grade and of minor importance. Observation of underground workings indicates that radioactivity apparently decreases as depth is attained in the mineralized horizon.

It is believed unlikely that the proposed exploratory program will result in a significant discovery of commercial-grade uranium ores. It is therefore recommended by the examining engineer and geologists that the loan be denied.

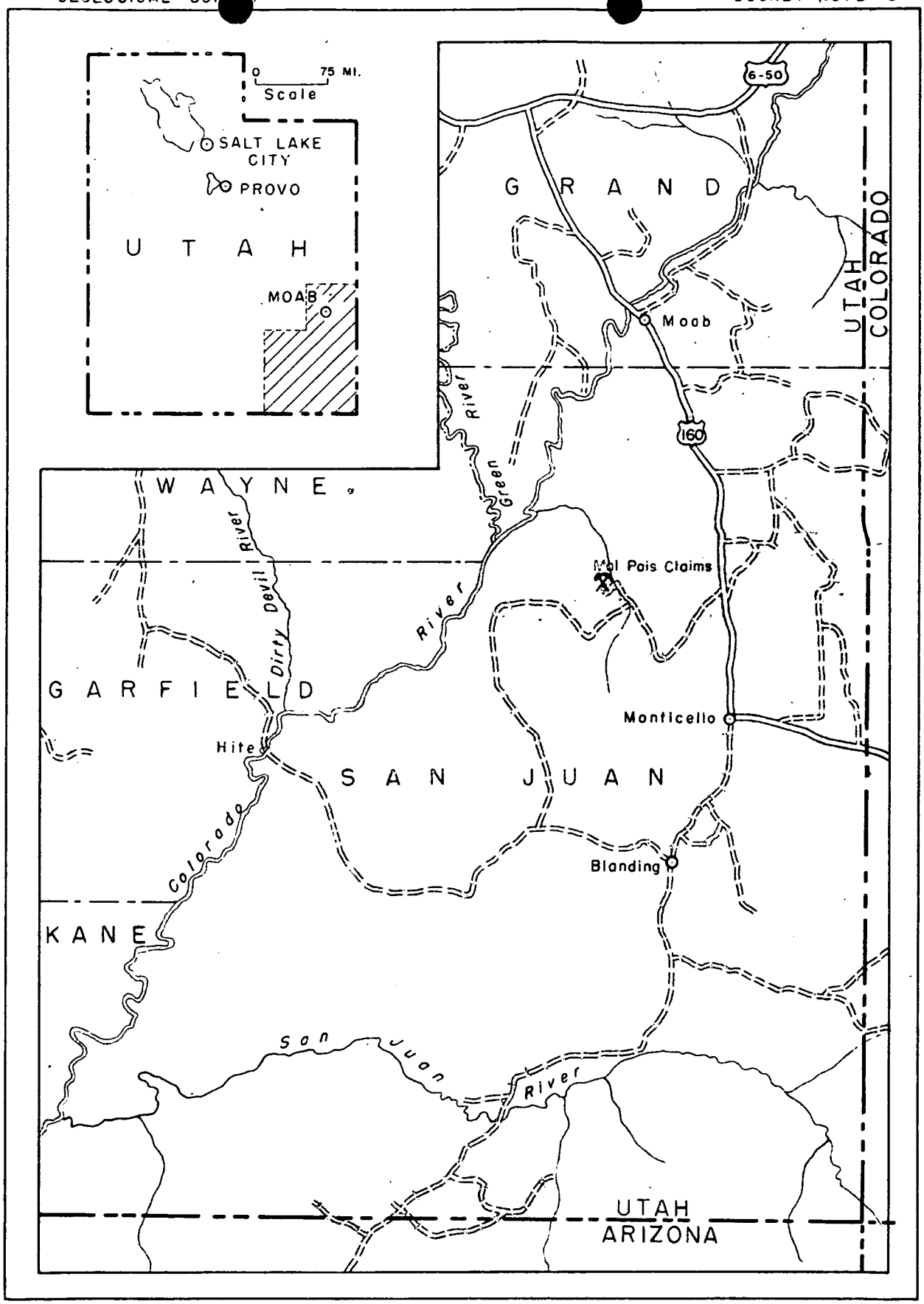

FIG. I INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale

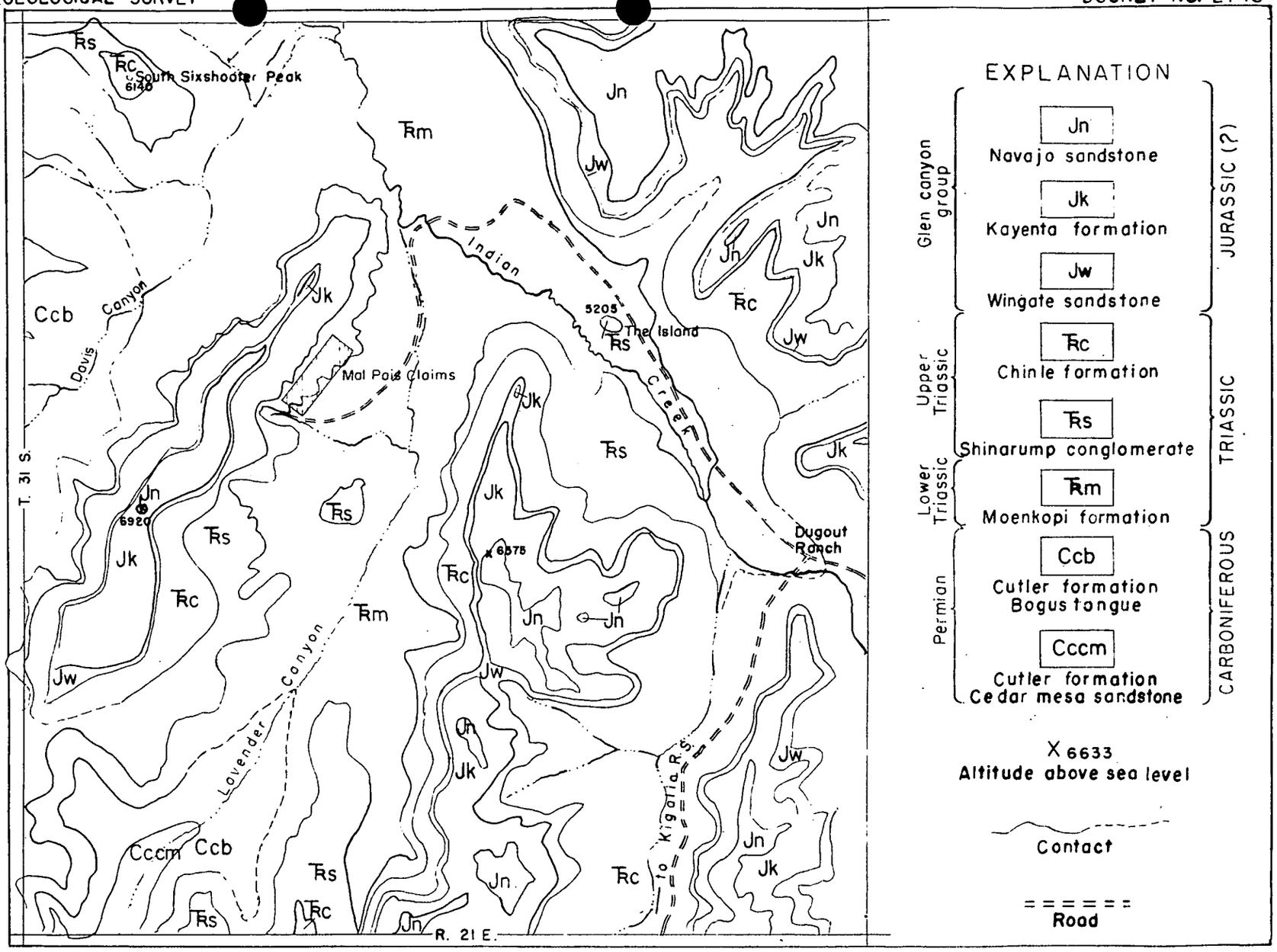

FIG. 2 GEOLOGIC MAP OF THE LOWER LAVENDER CANYON AREA
SAN JUAN COUNTY, UTAH

0 1 2 3mi.
Scale

Adapted from A. A. Baker, U.S.G.S. Bull. 841, 1933, plate I

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

March 12, 1953.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 19 1953

Memorandum

To: DMEA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2748, (Uranium) Mal Pais Mining and Engineering Co., San Juan County, Utah.

Enclosed are eleven copies of a joint engineering and geologic report on the subject docket.

The property has been discussed with A.E.C. representatives.

The field examiners concur in the belief that a significant amount of uranium would not be discovered by the applicant's proposed work, which was estimated to cost $58,350.00.

We recommend that the application be denied.

John F. Shaw
for W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
3-23-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

February 26, 1953

Memorandum

To: W. H. King, Chief, Mining Division, Region IV

From: Chief, Minerals Development Branch, Mining Division, Region IV

Subject: DMEA 2748, Mal Pais Mining and Engineering Co., San Juan County, Utah

Enclosed are the original and 10 copies of an engineering and geologic report covering an examination of the subject property by personnel from this office and from the Geological Survey office. Copies of a section on Summary, Conclusions and Recommendations are also attached.

Uranium mineralization on property of the Mal Pais Mining and Engineering Co. occurs in the Shinarump conglomerate a short distance above the bottom of the formation. Mineralization is associated with "trash carbon" and also is found in small quantities along clay or mudstone lenses. The results of the examination and study of information obtained from company percussion drilling indicate that uranium mineralization is low-grade and of minor importance. The examining engineer and geologists believe that exploration as proposed by the applicant will not disclose uranium ore of significance and recommend that the loan be denied. I concur with this recommendation.

A copy of the brochure and other information is attached.

Stephen R. Wilson

Stephen R. Wilson

Enclosures 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 East First South Street
Salt Lake City 1, Utah

March 4, 1953.

Memorandum

To: W. H. King, Chief, Mining Division, Region IV

From: Chief, Minerals Development Branch, Mining Division, Region IV

Subject: DMEA 2748, Mal Pais Mining and Engineering Co., San Juan County, Utah.

A joint engineering and geologic report covering examination of the subject property was transmitted to your office February 26, 1953. The property was discussed with representatives of the AEC and data included in the joint report. This information concerning AEC discussions was omitted from the transmittal letter accompanying the report.

Stephen R. Wilson

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By H. K. Thurber, Jr., C. G. Tillman and B. F. Sorensen

Mal Pais Mining and Engineering Co. has requested a DMEA loan to conduct work on uranium property in San Juan County, Utah. The property was examined during January 1953 by personnel from the Bureau of Mines and Geological Survey. This report appraises the feasibility of the proposed exploration.

Mineralization on the Mal Pais property is found in the Shinarump conglomerate, a few feet above the bottom of the formation. This formation outcrops for a considerable distance on the applicant's property. Uranium minerals occur associated with trees and other bits of organic matter, in small quantities along clay or mudstone lenses a few inches thick, and as a coating on small, nearly vertical fractures.

The applicant has proposed an exploratory program to consist of percussion drill holes and underground work on five claims, with a total estimated cost of $58,350. Results of the examination and study of data from the previous percussion drilling by the applicant indicate that the uranium mineralization is low-grade and of minor importance. The radioactivity apparently decreases in depth below the surface as indicated by observation of the underground workings. A few tons of low-grade ore may be inferred from existing exposures.

Recommendation is made that the requested loan be denied, as it is believed unlikely that the proposed exploration will disclose uranium mineralization of significance.

MAL PAIS MINING AND ENGINEERING COMPANY
SAN JUAN COUNTY, UTAH
DMEA-2748
Uranium

Engineering and Geologic Report

By H. K. Thurber, Jr.
Mining engineer
Bureau of Mines

and

C. G. Tillman and
B. F. Sorensen
Geologists
Geological Survey

MAL PAIS MINING AND ENGINEERING COMPANY
SAN JUAN COUNTY, UTAH

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Project proposals and costs	8
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ILLUSTRATIONS

Fig. 1 Location map, Mal Pais Mining and Engineering Co., San Juan County, Utah

Fig. 2 Geologic map

INTRODUCTION

The Mal Pais Mining and Engineering Co., Grand Junction, Colorado, has applied for a DMEA exploratory loan (docket DMEA-2748) of $58,350 to explore uranium mineralization on the company's property in San Juan County, Utah. The uranium mineralization occurs in the Upper Triassic Shinarump formation.

An examination of the property was made January 15, 1953, by H. K. Thurber, Jr., Bureau of Mines, and C. G. Tillman and B. F. Sorensen, geologists of the Geological Survey. The existing workings were entered, samples taken, and location of wagon drill holes on the surface noted. The outcrop of the ore-bearing horizon was observed for considerable distance along the claims.

The applicant proposes to explore the flat-lying ore horizon by wagon (percussion) drilling in areas beyond the outcrop, as well as to extend existing workings to intersect holes already drilled by the applicant. This report appraises the feasibility of the exploratory program.

LOCATION AND PHYSICAL FEATURES

The property of the Mal Pais Mining and Engineering Co. lies in Secs. 9 and 17, T. 31 S., R. 21 E., S.L.B. & M., San Juan County, Utah. The claims cover the west rim of Lavender Canyon, approximately 1 mile from its confluence with Indian Creek, a major drainage on the northwest slopes of the Abajo Mountains. The area has been surveyed and a standard section corner was found during the examination.

The property is reached from a point on U. S. Highway 160 approximately 16 miles north of Monticello, Utah, via a county-maintained, dirt road approximately 22 miles to the Dugout Ranch, thence by truck trail 1½ miles to the property.

The road can be traveled in all weather, but the last 1½ miles is, in part, in the wash of Lavender Canyon; thus the property would be isolated during, and for a short time after, a rain storm. An alternate route to eliminate this condition could be constructed easily on dry benches. All of the area proposed to be drilled by the applicant may be reached by jeep or similar vehicle.

The property lies in an arid area exhibiting typical vegetation of the region. The area of proposed work is either bare sandstone or very sandy soil supporting pinon and cedar trees of moderate size, with brush and cactus. Water for any purpose must be hauled from Indian Creek, a distance of approximately 1½ miles.

The structures on the property consist of a small, recently built cabin and a crudely constructed ore chute at one of the adits.

HISTORY AND PRODUCTION

The group of 5 claims upon which the applicant proposes to work is part of a larger number of claims leased by Mal Pais Mining and Engineering Co. from the Intermountain Uranium Corp., Monticello, Utah. The latter corporation drove two short adits on the Conglomerate No. 1 and Conglomerate No. 2 claims and a short adit on the Lavendar No. 2

claim before the applicant obtained the property on lease, August 26, 1952.

No record of ore shipments resulting from this work is available, but results of samples taken at the time of the examination, and observation of the workings lead to the belief that the estimate of production given by the applicant in written material supplemental to his application was overstated.

OWNERSHIP AND EXTENT

The applicant proposes to conduct exploratory work on a group of five contiguous claims which are part of 41 claims in the immediate area leased from the Intermountain Uranium Corp. of Monticello, Utah, apparent holders of the claims by right of location. A copy of the lease is attached to the application. The recording information on the five claims upon which work is proposed are listed as follows:

Claim	Book	Page	Recording Date
Conglomerate No. 1	R-2	353	Dec. 1, 1950
Conglomerate No. 2	R-2	353	Dec. 1, 1950
Lavendar No. 1	R-2	354	Dec. 1, 1950
Lavendar No. 3	R-3	287	April 20, 1951
Lavendar No. 4	T-8	168	April 3, 1952

The above claims are recorded in the office of the County Clerk, Monticello, San Juan County, Utah.

Inquiry at the Salt Lake office, Bureau of Land Management, reveals that there are no current Federal oil and gas leases in the area of the applicant's property.

GEOLOGY

The Mal Pais Mining and Engineering Co. claims are on the flanks of a mesa on the west side of Lavender Canyon a few miles northwest of the Abajo Mountains (fig. 2). The mesa is capped by cliffs of the Lower Jurassic Wingate sandstone. The underlying Upper Triassic Chinle formation slopes downward to a bench about 1,500 feet wide which is supported by the Upper Triassic Shinarump sandstone and conglomerate. Underlying the Shinarump and forming the lowest slopes of the mesa is the top of the Lower Triassic Moenkopi formation. These formations all appear to be nearly flat-lying.

ORE DEPOSITS

Uranium mineralization in the area examined is confined to the bottom few feet of the Upper Triassic Shinarump conglomerate. The Shinarump here is composed dominantly of brown, lenticular conglomerate and conglomeratic sandstone interbedded with siltstone of minor thickness. Normally, the clay-like or sandy groundmass of the dominant units is grey and the pebbles are red, black or green. Alteration of the conglomerate by mineralizing solutions has resulted in a white groundmass and pebbles varying from grey to rusty brown.

The Shinarump formation varies from 50 to 75 feet in thickness on the Conglomerate Nos. 1 and 2 claims and 75 to 100 feet on the Lavendar No. 1 claim. The largest observed scour channel is approximately 10 feet thick and is weakly mineralized.

The Shinarump conglomerate contains a moderate amount of "trash carbon" at several points on the property, but only rarely is uranium present at these points. Uranium minerals are also found in small quantities along clay or mudstone lenses a few inches thick, and coating small, nearly vertical fractures.

Malachite, probable bornite, and pyrite, were observed along the rim and in the workings on the Conglomerate No. 2 claim. Calcite masses and seams are fairly abundant in several of the workings. Gypsum seams are also present.

ORE RESERVES

The applicant estimates that 1,500 tons of ore, averaging 0.15 percent U_3O_8, is present on the claims. There are no assay data available covering the drill holes completed by the company to support this grade. The DMEA loan application and supplementary material indicates that a total of 44 wagon drill holes have been drilled on the property to a depth of approximately 100 feet. The results of the applicant's radiometric survey of these holes is believed to be inconclusive concerning grade and thickness. A calculation of a weighted average of chemical assay results from wagon drill hole

samples presented in supplemental material to the DMEA loan application shows a grade of 0.076 percent U_3O_8 over an average thickness of 3.7 feet. It will be noted that Bureau of Mines samples from the adit face, as well as the ore-pile grab, are considerably lower than the assay results presented by the applicant.

Samples were taken in the adits and on the surface near the adits and a grab sample was taken from ore sacked for shipment. Assays of these samples are listed as follows:

Sample No.	Description	Percent			
		U_3O_8	V_2O_5	Cu	$CaCO_3$
1	1.3-foot cut in clay at bottom of face, west workings, Conglomerate No. 2 claim	0.004	0.06	1.33	8.4
2	Rim between locations of samples 1 and 3	0.126	0.11	0.85	21.6
3	Grab of 6 sacks on loading platform	0.105	0.04	0.18	27.85
4	Eastern workings, Conglomerate No. 2 claim	0.012	0.06	0.61	10.0
5	Workings, Lavendar No. 1 claim	0.036	0.02	<0.01	15.9

An estimate based on the sample and assay data above and excluding the mineralized area outlined by the applicant's drilling, shows less than 100 tons of inferred ore averaging approximately 0.10 U_3O_8. Although the two samples containing the greatest content of U_3O_8 are above the minimum grade acceptable in Colorado Plateau mills and buying stations,

experience of operators indicates that little or no profit is realized from the mining of this grade ore.

PRESENT STATUS

The property was idle at the time of examination and no facilities or equipment were present with the exception of the cabin mentioned in an earlier paragraph.

PROJECT PROPOSALS AND COSTS

The applicant proposes to drill the 5 claims involved in the application on 100-foot grids, using a truck-mounted wagon (percussion) drill. The applicant estimates that the holes will be an average of 100 feet deep and the proposed pattern will require 96 holes, which leads to the requirement of 9,600 linear feet of hole per claim. At the applicant's estimated cost of $0.50 per foot, this would require approximately $4,800 per claim, or approximately $24,000 total cost for the five-claim group involved.

In addition to the proposed drilling, the applicant plans to do underground work to extend existing workings, apparently to drive to uranium mineralization encountered by previous drilling. Equipment and labor involved in this underground work is estimated to cost $34,350.

The total project cost is estimated to be $58,350. Based upon the results of the examination and perusal of sample records submitted

by the applicant, it is the opinion of the field team that this expenditure is not warranted.

CONCLUSIONS AND RECOMMENDATIONS

Uranium mineralization on the applicant's property occurs in the Upper Triassic Shinarump conglomerate.

Samples taken at the time of examination and results of percussion drilling by the applicant indicate that the uranium mineralization is low-grade and of minor importance. Observation of underground workings indicates that radioactivity apparently decreases as depth is attained in the mineralized horizon.

It is believed unlikely that the proposed exploratory program will result in a significant discovery of commercial-grade uranium ores. It is therefore recommended by the examining engineer and geologists that the loan be denied.

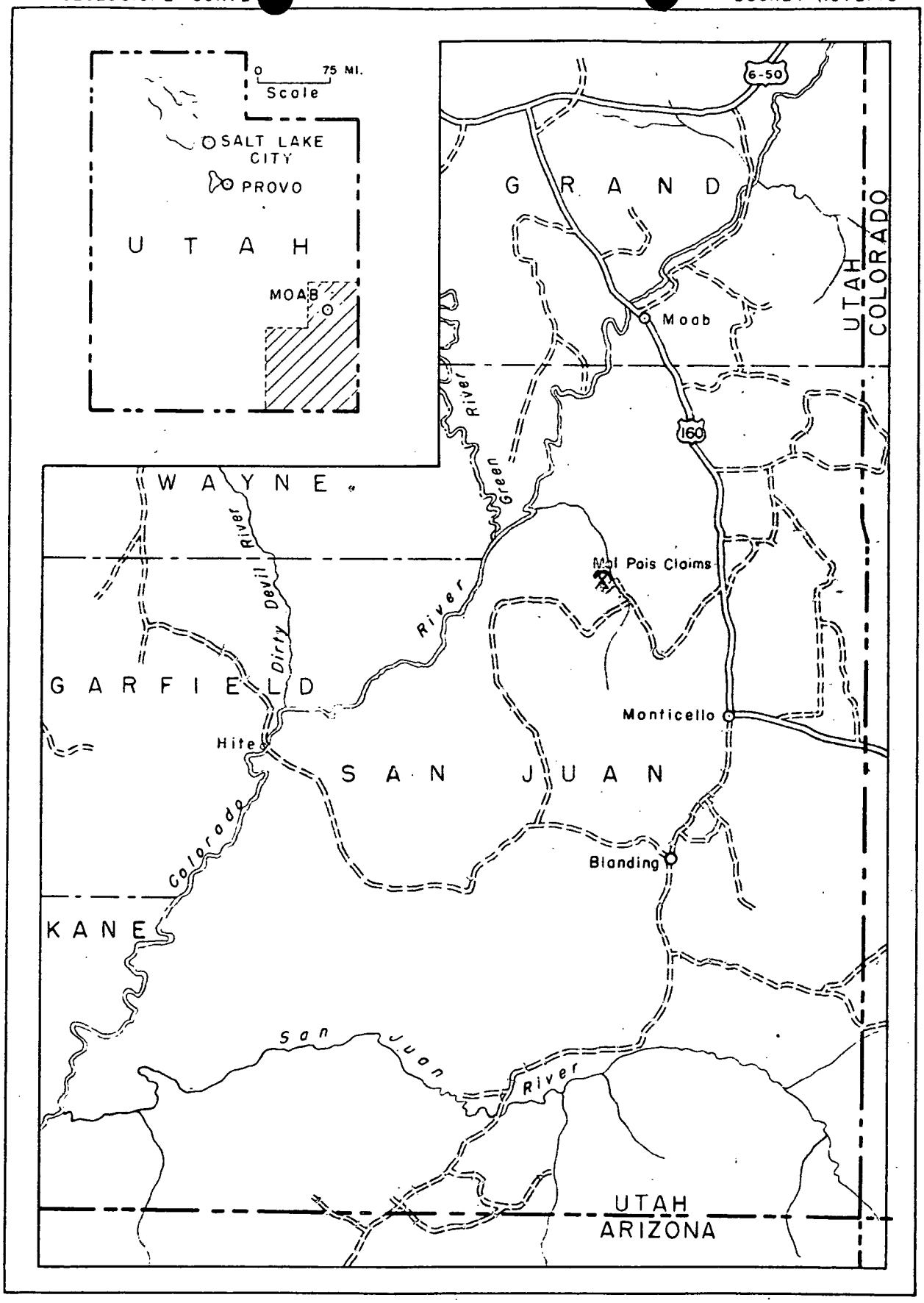

FIG. I INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale

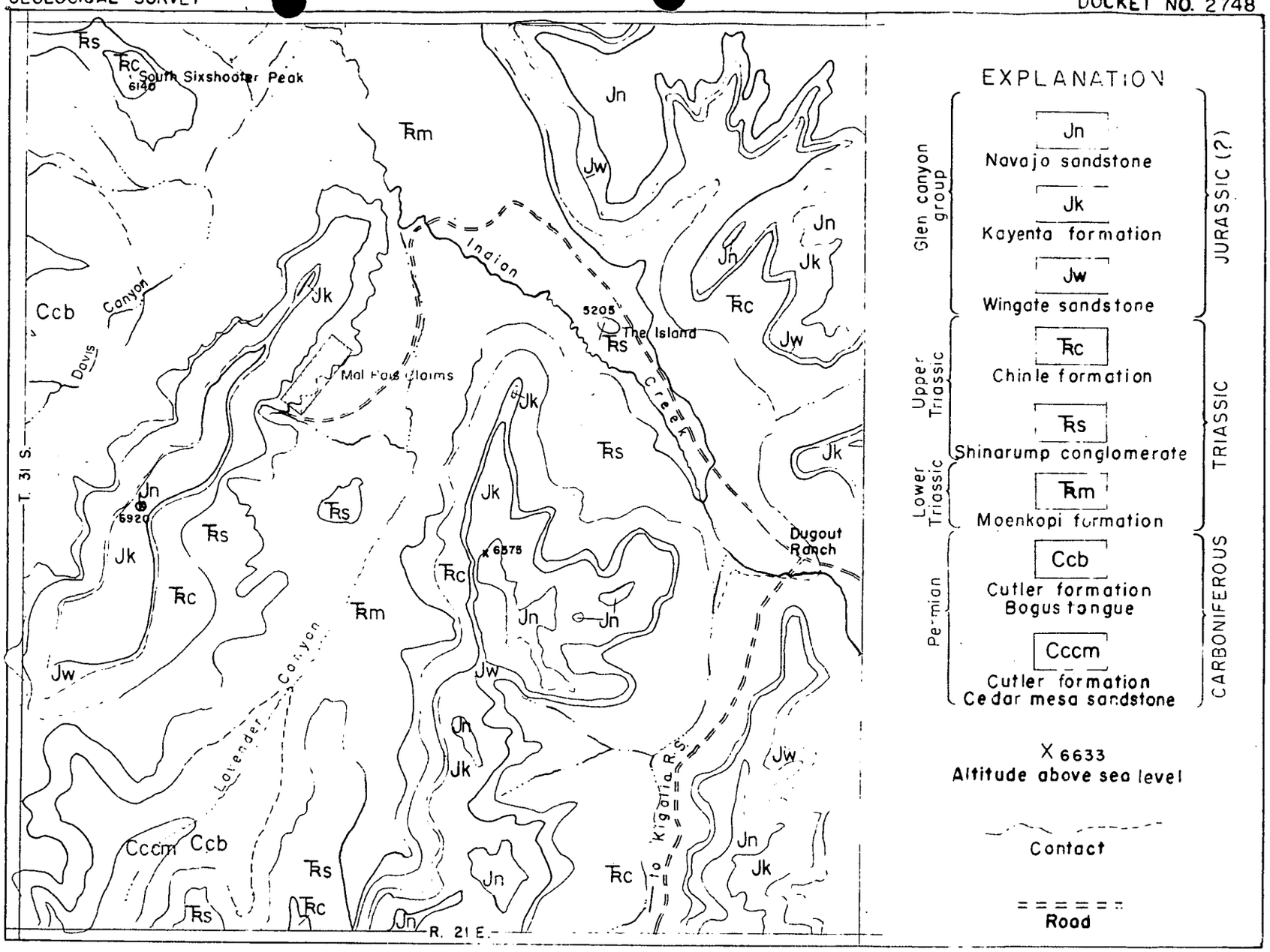

FIG. 2 GEOLOGIC MAP OF THE LOWER LAVENDER CANYON AREA
SAN JUAN COUNTY, UTAH

0 1 2 3 mi.
Scale

Adapted from A. A. Baker, U.S.G.S. Bull. 841, 1933, plate I

FILE COPY
SURNAME:
700

Schmidt
Fleming
Fishman

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

NOV 10 1952

Mrs. Roma Therrell, Sec.-Treas.
Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

Re: Docket No. DMA-2748 (Uranium)
Grand Junction, Colorado

Dear Mrs. Therrell:

The application for assistance in exploring your property in San Juan County, Utah, under the above captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. Your application has been referred for a field examination to the Executive Officer of Region IV at the following address:

Mr. W. H. King
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado

The Regional Office will contact you at the earliest opportunity in regard to your project.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

J.H. 11-10-52

FSSchmidt/jem
11/7/52
cc to: Adm. Reading File
Docket
Messrs. Ellis
Schmidt
Field Team, Region IV (2)

FILE COPY
SURNAME:

Schmidt
FE Moore

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

NOV 10 1952

Mr. W. H. King
Executive Officer, Region IV
DMA Field Team
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMA-2748 (Uranium)
Hal Fair Mining and Engineering Co.
Grand Junction, Colorado

Dear Mr. King:

The subject application is referred to you for a field team examination.

There has been a reported production of 20 tons of U.3O8 from this property. It has been examined by the Atomic Energy Commission engineers, and it is recommended that Mr. Lowell Gilpert of the Geological Survey and Ernest Gordon of the A.E.C. of Grand Junction be consulted in making the Field Team report.

The application includes work that is intended for development and production which is not within the DMA program. The 100 foot spacing of holes, on a grid, extending over 5 mining claims seems too ambitious. Consideration might be given to the location of holes guided by geological features such as the indicated old channel or stream bed with which mineralization is apparently associated. It is also notable that the applicant does not provide assays from any of the 7 drill holes or the 70 feet of underground workings.

The property is not owned by the Applicant, but operated on a 5 year lease dated August 28, 1952. In the event that a project of exploration is recommended by the Field Team, it will be necessary to have an Owner's Consent to Lien.

Sincerely yours,

(signed) FRANK E. JOHNSON
(JHB)
Chairman, Operating Committee

F.N. 11-10-52

CONCUR:
J. H. Hedges (JHB)
Member, Bureau of Mines

O.R. Kinkel, Jr. (JHB)
Member, Geological Survey

FESchmidt/jem 11/7/52
cc to: Adm. Reading File
Docket
Messrs. HDReiser-1347
APButler-3206 GSA
Ellis Schmidt
Field Team, Reg. IV Opr. Com.

Jem 11/3/52

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

November 3, 1952

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member,
Uranium Commodity Committee

Subject: DMEA Docket No. 2748, Mal Pais Mining and Engineering Co., 1245 Mesa Avenue, Grand Junction, Colorado.

I have reviewed the application included in the subject docket and discussed it with Arthur P. Butler, Geological Survey Member, and Joseph O. Hosted, representative of the Atomic Energy Commission.

The exploration proposed in the application -- to drill out each claim on 100-ft. centers -- would appear to be excessive, and driving of underground openings after any such drilling program would seem to be development rather than exploration.

It is recommended that the application be referred to the field team for investigation and report, with the suggestion that the team consult with Mr. Lowell Hilpert, Geological Survey, and Mr. Ernest Gordon, Atomic Energy Commission, Grand Junction, Colorado.

H D Keiser
H. D. Keiser

Attachment

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

November 3, 1952

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

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It is recommended that the application be referred to the field team for investigation and report, with the suggestion that the team consult with Mr. Lowell Hilpert, Geological Survey, and Mr. Ernest Gordon, Atomic Energy Commission, Grand Junction, Colorado.

H. D. Keiser

Attachment

11/4/52 gla

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

TO : E. Wm. Ellis

DATE: October 31, 1952

FROM : Arthur P. Butler, Jr.

SUBJECT: DMEA Docket 2748, Mal Pais Mining and Engineering Co., 1245 Mesa Avenue, Grand Junction, Colorado. Lavender and Conglomerate Claim Groups, T. 31 S., R. 21 E., San Juan Co., Utah

Comment

Information in the Survey files with respect to the property identified in the application listed above, is inadequate for a definitive appraisal for the merit of the applicant's proposal.

The applicant's property as indicated in the application, and in the monthly project report, Grand Junction Exploration Branch, AEC, June 1952, has been a source of a small amount of commercial ore. The property also is in the Shinarump formation, which at scattered points throughout the Colorado Plateau region is a promising source of ore.

The applicant reports that 7 non-core drilling holes have been sunk within the limits of the claims, but no chemical analyses of samples are given. Such analyses, however, would be valuable information in determining what future exploration may be warranted.

The exploration by drilling proposed by the applicant appears to be unnecessarily intensive and guided by the boundaries of the property rather than any geologic features. Moreover, the drilling plan proposed calls for offset holes at intervals of 25 feet around any hole on the 100 foot spacing that penetrates ore. If provision for such offset is allowed in a final Field Team recommendation, then the drilling would constitute adequate exploration. The further work of driving adits to ore found and delimited by the drilling would more properly be mining development rather than exploration.

Though it is outside my field, attention is called to the fact that the applicant proposes to acquire 3 groups of machinery to be operated at different points on the claims where ore might be found. This number of groups appears to me to be more than would be needed for the exploration proposal.

Recommendations

I recommend that the application be referred to the Field Team for final examination and review of the proposed work so as to determine what exploration, if any, is warranted. I suggest that the Field Team try to relate such exploration as may be recommended to the geologic features so that effective

exploration may be carried out with a minimum amount of work. I suggest further, that they particularly determine whether or not the proposed adit driving should be considered exploration, if drilling were intensive enough to define the limits and continuity of ore.

The members of the Grand Junction Exploration Branch staff, AEC, have examined the property. I recommend strongly that the examining members of the Field Team consult with the AEC staff in Grand Junction to obtain the benefit of any information, maps, and suggestions that members of that staff may have. I suggest also, that they consult with the members of the Geological Survey staff at Grand Junction, for such suggestions as they may have.

Finally, I recommend that the applicant be requested to furnish analyses of samples from the drill holes that he has already sunk before any plan of exploration is adopted.

Arthur P. Butler, Jr.

Arthur P. Butler, Jr.

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

E. Wm. Ellis

October 31, 1952

A. P. Butler, Jr.

DMEA Docket 2748, Mal Pais Mining and Engineering Co., 1245 Mesa Avenue, Grand Junction, Colorado. Lavender and Conglomerate Claim Groups, T. 31 S., R. 21 E., San Juan Co., Utah.

Comment

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Finally, I recommend that the applicant be requested to furnish analyses of samples from the drill holes that he has already sunk before any plan of exploration is adopted.

Arthur P. Butler, Jr.

Cy to E. Wm. Ellis

APButler, Jr.-Am 10-31-52
File: Div. Filed
Dir. Reading

TEPCO Reading
ARU Reading
DMEA Docket
DMEA Application

Rec'd 10/27/52

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 2 1952

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. Dmes-2798
Metal or Mineral
Date Received 10-27-52
Amount $
Participation (Government %)

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

Name and address of applicant

Date 10/16/52

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.
   See sketch and report.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.
    None.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Mal Paso Mining & Eng. Co. By Roma Sherrell
(Name of company) (Signature of authorized official)

10/16/52 Secretary-Treasurer
(Date) (Title)

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—64067-2

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

1. (a) The property involved is situate in sections 9 and 17, Township 31 south Range 21 East of the Salt Lake Principal Meridian. The area to be drilled is north and west of a spot of land in section 16 of the above township known as "The Island." Drilling will be conducted along an exposed rim immediately above the shinarump formation. Roads exist which allow access to the area and the rim.

   (b) Copy of lease enclosed.

   (c) Legal description - Conglomerate #1, Book R-2, page 353. Conglomerate #2, Book R-2, page 353. Lavendar #1, Book R-2, page 354. Lavendar #3, Book R-3, page 287. Lavendar #4, Book T-8, page 168. All recorded in office of County Clerk, San Juan County, Utah. Situate as stated in 1 (a).

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

2. (a) Uranium, vanadium, rare earths, copper.

(b) See engineering report.

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

3. (a) Proposed work involved to drill these claims and block out an ore body can be shown by the following outline:

(1) Continue drilling on a 100' grid system.

(2) Offset mineralized holes at 25' intervals until a body of ore is completely blocked-out.

(3) Extend tunnels having their portals at proper heights along the rim to afford proper haulage, drainage, and extraction of blocked-out ore bodies.

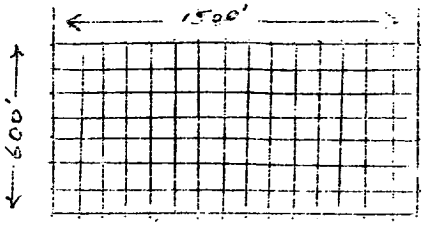
(4) Lay off ore bodies for retreating mining system of proper method for each body of ore. This depending entirely upon the way each ore body lies in respect to the surrounding ground.

Costs of drilling these claims can be estimated at $.50 per foot of hole drilled. Holes will be on an average of 100 feet deep and to cover one claim 600'x1500' 96 holes will be required to drill on a 100' grid system. By mathematics 96 holes times 100 feet deep equals 9600 feet of hole @ $.50 per foot is $4800.00 to completely drill one claim. Multiply this by five claims and drilling costs will approach $24,000.00. This cost can be offset by opening and mining small portions of ore bodies as they are blocked out. The cost of deadhead work to open blocked-out ore bodies can only be roughly estimated as the distance of deadhead drifting cannot be known until such an ore body is blocked out. However, assuming that an ore body exists 100 feet from the surface rim and a 6x5 tunnel is driven to tap this ore body, the estimated cost of driving this tunnel will be about $37.50 per foot, or $3,750.00. Added to this cost will be a surface plant consisting of ore bin to receive ore when reached, track mine car, mucking machine or slusher and compressor with proper housing. Again an estimated cost of $7,700.00. Thus the total cost to block out a small ore body which can be used to offset the total cost of the operation will approach $4,800.00 + $3,750.00 + $7,700.00 or $16,250.00. The entire operation can be estimated at

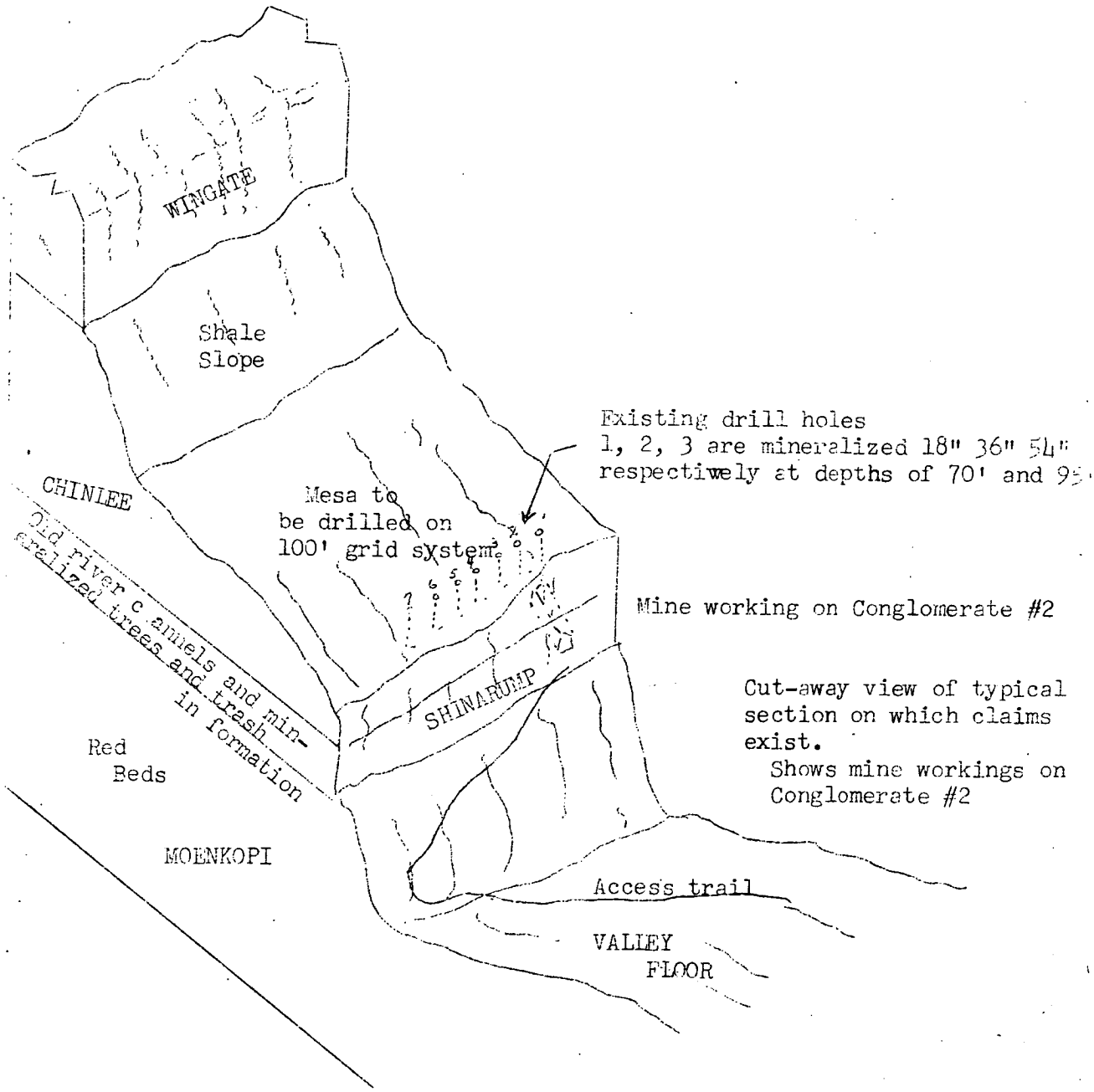
Drilling	$24,000.00	for 100' grid system
	11,250.00	drifting and opening 3 ore bodies
	23,100.00	3 surface plants as described above
	$58,350.00	Total cost of exploration

These are very rough estimates and will be on the low side of probable costs. However, it can be assumed by work already accomplished in the area that mining operations will probably start within three months and returns from this will offset the cost of further exploration. Thus $20,000.00 will be sufficient to block out a small portion of an existing ore body and open it for actual mining.

(b) Commence immediately. Complete in two years.



Typical Grid System
100' Grid at Claim

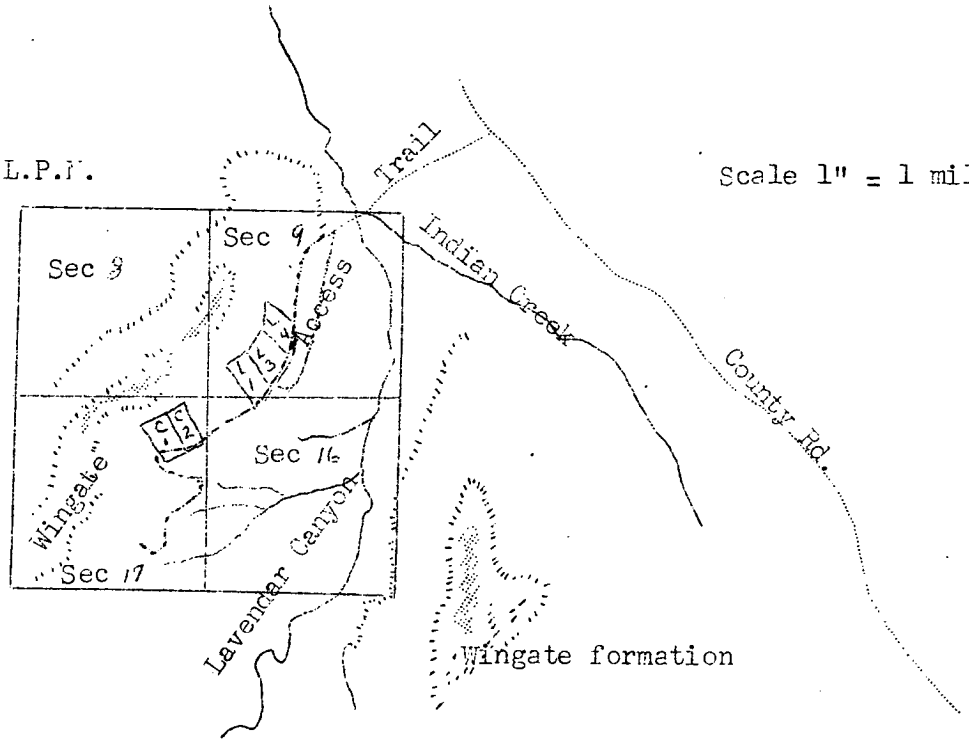


Cut-away view of typical section on which claims exist.
Shows mine workings on Conglomerate #2

Location Map
San Juan County
Utah

T31S R21E S.L.P.M.

Scale 1" = 1 mile



C_1 = Conglomerate #1

C_2 = Conglomerate #2

L_1 = Lavender #1

L_3 = Lavender #3

L_4 = Lavender #4

Note: Claims not to scale and thereby cover more actual area on sketch than would if drawn to scale.

Form MF103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

5. Existing facilities:

1 - 8x10 wall tent
1 - 6x8 pyramid tent
1 - camp stove complete with dishes, etc.
No existing mining facilities
Access trails in need of repair - Cost estimate $500

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

6. Additional facilities:

	Cost
2 - buildings	$1,500.00
1 - mine building	750.00

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

7. Operating equipment:

(a) No rental

(b) Purchased

	Cost	
1 - 315 cuft Ingersol Rand Compressor	$7,000.00	5 yr life
2 - Thor 45# hammers	700.00	5 yr life
2 - Jack legs	400.00	5 yr life
Hoses and couplings	150.00	1 yr life
Steel and pipe	150.00	1 yr life

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

8. 2 - miners @ $12.00/day
   2 - drillers @ $12.00/day
   1 - engineer @ $325.00/month
   1 - manager @ $400.00/month

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

9. Cost of materials, etc.

		Cost
Materials		$325.00
Hoses	$100.00	
Couplings	25.00	
Steel	100.00	
Pipe	50.00	
Nails) Miscellaneous)	50.00	
Assays		200.00
Accounting		250.00
General		200.00
		$975.00

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

10. (a) $2,000.00

(b) Yes

C O P Y

C O P Y

MINING CLAIM LEASE AGREEMENT

THIS AGREEMENT, Made and entered into in duplicate this 26th day of August, 1952, by and between the Intermountain Uranium Corporation, a Utah Corporation, whose principal place of business is Monticello, San Juan County, Utah, (hereinafter referred to as "Lessors"), and MAL PAIS MINING & ENGINEERING CO., a Colorado corporation, (hereinafter referred to as "Lessee"); WITNESSETH:

That Lessor, for and in consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed and by Lessee to be kept and performed, does hereby lease and demise unto Lessee, the following described mining claims located in unorganized mining district in Township 31 South, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah, all as more fully described in the Location Certificates which were recorded in the office of the Clerk and Recorder of San Juan County, Utah, as follows:

Name of Claim	Book and Page in County Recorder's Book at which recorded	
	Book	Page
Conglomerate #1	R-2	353
Conglomerate #2	R-2	353
Lavendar #1	R-2	354
Lavendar #3	R-3	287
Lavendar #4	T-8	168
Lavendar #5	T-8	170
Lavendar #6	T-8	171
Lavendar #7	T-8	172
Lavendar #8	T-8	173
Lavendar #9	T-8	174
Lavendar #10	T-8	175

Name of Claim	Book and Page in County Recorder's Book at which recorded	
	Book	Page
Aqua #1	R-3	295
Aqua #2	R-3	295
Aqua #3	R-3	295
Aqua #4	R-3	297
Aqua #5	R-3	297
Aqua #6	R-3	297
Aqua #7	R-3	297
Aqua #8	R-3	321
Aqua #9	R-3	321
Aqua #10	R-3	322
Conglomerate #3	R-4	26
Conglomerate #4	R-4	26
Conglomerate #5	R-4	26
Conglomerate #6	R-4	27
Conglomerate #7	R-4	27
Owochomo #1	R-3	7
Owochomo #2	R-3	7
Owochomo #3	R-3	8
Owochomo #4	R-3	8
Owochomo #5	R-3	8
Owochomo #6	R-3	9
Inspiration #1	R-3	9
Inspiration #2	R-3	9
Inspiration #3	R-3	10
Inspiration #4	R-3	10
Inspiration #5	R-3	11
Inspiration #6	R-3	11
Indian Creek #1	R-3	11
Indian Creek #2	R-3	12
Indian Creek #3	R-3	12

TO HAVE AND TO HOLD the same for a term of five years from the date hereof unless sooner abandoned by Lessee pursuant to the terms hereof.

And in consideration thereof, Lessee does hereby covenant with Lessor as follows:

1. To enter upon said mining property and work the same in a manner consistent with good and economical mining practices so as to take out the greatest amount of ore possible with due regard to the development and preservation of the same as mining property and keeping as high as practicable the grade of ore being so mined.

2. To work and mine said premises as aforesaid from the date of this lease, the Lessee, however, reserving the right to quit and abandon said claims and this lease at any time after six months from the date of the execution of this agreement if, in the opinion of the Lessee, said claims are not susceptible of profitable operation.

3. To allow said Lessor and his agent from time to time to enter upon and into all parts of mining operations upon said mining claims for purposes of inspection.

4. Not to assign this lease or any interest thereunder nor sublet the said premises or any part thereof without the written consent of said Lessor nor to allow any person not in privity with the parties hereto to take or hold possession of said premises or any part thereof.

5. To pay said Lessor as royalty fifteen per cent (15%) of the net mill returns of all ores mined from said claims by Lessee, such payment to be made by delivery of such ore with all convenient speed in lots as mined to some mill or regular ore buyer and leaving with such mill or ore buyer the percentage of mill returns aforesaid for delivery to Lessor. For the purpose of this contract, "net mill returns" shall mean such sums as shall be paid for the values in the ore after deducting all charges for carriage in any form, assays and mill charges. Should the uranium oxide content of ore mined and the volume thereof be sufficient to qualify for a bonus from the government, Lessor shall be entitled to receive fifteen per cent (15%) as his share of such bonus. Development allowances and transportation allowances, as set forth by the government for the development and transportation of uranium, are to be retained by the Lessee as Lessee's sole property. When Lessee is awarded transportation allowances on

uranium ore, as set forth by the government, such sums paid for the transportation of uranium ore by the government shall be deducted from the total carriage charges to arrive at an adjusted carriage charge to be used in calculating the net mill returns of uranium ore.

6. To do and perform the necessary assessment work on all claims in connection with this agreement during the life of the lease.

7. To indemnify and hold harmless Lessor from any and all loss or damage and from all claims for injury, death loss or damage of any kind or character and by whomsoever suffered or asserted occasioned by or in connection with any work performed by Lessee, its agents or employees.

8. To promptly pay all bills for labor and materials incurred in Lessee's operations hereunder and to indemnify and save harmless Lessor from all claims and liability of every kind and nature which may or might be incurred by them by reason of operations hereunder.

9. To at all times fully comply with the provisions of the Workmen's Compensation laws of the State of Utah.

IT IS MUTUALLY AGREED That if Lessee is in possession of said premises under this lease on the date five years from date and is conducting mining operations on said premises at that time, then Lessee shall have the option to remain on said premises and conduct operations thereon so long as mining operations, in the opinion of the Lessee, continue to be profitable on any of the claims, provided that Lessee fully and faithfully complies with each and all of the covenants by it to be kept and performed as herein stated.

On any termination hereof, the Lessee shall have the right to remove from said claims at any time within the ninety-day period from and after the date of termination, all equipment placed on the claims by Lessee.

In the event that Lessee shall conduct a core drilling program or wagon drilling program on said claims, a copy of all drill logs, analyses and other pertinent data shall be supplied to Lessor.

Dated at Monticello, Utah, the day and year first above written.

INTERMOUNTAIN URANIUM CORP.

By (/s/ Don B. McAffee)
President
Lessor

MAL PAIS MINING & ENGINEERING CO.

By (/s/ Philip W. Peter)
President
Lessee

State of Utah)
) ss.
County of San Juan)

On this 26th day of August, 1952, personally appeared before me Don B. McAffee, president of the Intermountain Uranium Corporation, and Philip W. Peter, president of the Mal Pais Mining & Engineering Co., each of whom duly acknowledged that he executed the foregoing instrument on behalf of his respective corporation and by authority of the by-laws of his respective corporation, and for and on behalf of his respective corporation.

/s/ F. Bennion Redd
Notary public, residing
at Monticello, Utah.

My commission expires 6-14-55.

REPORT ON FIVE CLAIMS
LAVENDAR CANYON
SAN JUAN COUNTY, UTAH

Location:

The Conglomerate #1, Conglomerate #2, Lavendar #1, Lavendar #3, Lavendar #4 are situated in section 9 and 17 of township 31 south, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah. These claims form a portion of the claims under lease from the Intermountain Uranium Corporation to the Mal Pais Mining and Engineering Company. They lie north and west of Lavendar Canyon approximately 2 miles above the junction of Lavendar Canyon with Indian Creek. The claims thus being on the rim to the left looking downstream in Lavendar Canyon.

Roads:

These claims are reached by access roads already constructed, county roads and the Moab-Monticello Highway. The claims are 50 miles from Monticello, the nearest village, 25 miles of this being on state highway improved, 23 miles on county maintained, unimproved roads, and 3 miles of access trails. All roads are passable during inclement weather and are sufficient to allow trucks as well as passenger cars access to the claims.

Camp:

The drilling camp of the Mal Pais Mining and Engineering Company consists of one 8x10 wall tent and one pyramid tent. Necessary cooking utensils, stove, light plant, water tank, etc., are now in use by the engineer in charge of drilling and his helper.

Equipment:

At present there is a complete wagon drill assembly at the camp consisting of a 210 cu. ft./min. LeRoi compressor mounted on a 6x6 GMC four-wheel drive truck and serving air to an MDR 10 Cleveland wagon drill and E 23 Cleveland sinker. Enough steel is on hand to drill holes up to 150' together with the necessary smaller items customary to drilling rigs of this type. The camp and drilling equipment are serviced by means of a 4x4 Jeep four-wheel drive pick-up truck. A small welding rig and acetylene cutting apparatus is available to handle the expected usual breakages encountered in field operations.

Drilling:

The drilling of the area to date consists of seven holes at depth of 100' passing through the shinarump formation and ending on top of the moenkopi formation. Three of these holes have been tested by means of a Babble counter probe and indicate 18", 36" and 54" of mineralization present at

those depths in the shinarump formation. The other four holes have not as yet been probed but as they are drilled on a 100' grid system it can be assumed that they also will show mineralization, when probed by means of the Babble counter. Drilling is still underway on a 100' grid system in an attempt to block out a mineable ore body in the near future.

Geology:

The area surrounding Lavendar Canyon and Indian Creek consists of several high mesas cut by deep canyons. The formations to be seen consist of (1) the Wingate, forming the high mesas and what could be called peaks of the area; (2) the chinlee formation, found directly below the Wingate, composed of red yellow and blue shales, and forming a steep slope from the high steep Wingate walls to the shinarump sandstones below; (3) the shinarump sandstones and conglomerate are in place immediately below the chinlee formation. This formation forms a rather extensive second mesa or rim ledge on which the five claims considered by this report are located. The shinarump is about 100 feet thick in this area. That is to say, the depth of drilling to pass through this second mesa, of partly chinlee and shinarump formations to reach the moenkopi formation, is roughly 100 feet. Below the shinarump formation lies the moenkopi red beds which slope to the valley floor. This is a description of the section immediately around the claims in question and also is typical of the surrounding area.

The ore bearing formation as regards uranium, vanadium, rare earth and small amounts of copper is the shinarump. In this particular area, covered by these claims, the shinarump is composed of numerous trees which have formed into uranium bearing bodies enclosed within the shinarump conglomerate. These trees can be uncovered along the rim and Geiger counter readings along with assays (information as regards assays obtained from the Intermountain Uranium Corporation and officials at the mill at Monticello) indicate some of the trees have formed into uranium ore yielding as much as 40% U_3O_8. It can be reasonably assumed from the amount of trees and "trash" enclosed within the shinarump conglomerate on these claims that the site is one of an old stream bed of the Triassic period in the geological time table. It is reasonable to assume that there is a strong possibility of an ore body existing within the rim somewhere along this old channel. The drill log of the first three holes drilled on this spot tends to substantiate this as they indicated 18", 36" and 54" respectively of mineralization by Geiger probe. (Estimated safe assumption from actual drill logs.)

Old Workings:

The Intermountain Uranium Corporation opened a tunnel with two cross cuts, the total footage amounting to about 70 feet, 50 feet of main tunnel and 20 feet of cross cuts in an attempt to locate an ore body. Surface indications and indications within the tunnel show the presence of high grade

ore but limited quantities of such. Each face of these workings is apparently void of mineralization but upon close inspection it can be noted that mineralization is found near the bottom of these openings, indicating that the workings have passed over mineralized areas and thus the previous operators became discouraged causing a shut down.

No exact information is available at the present as regards the amount of ore shipped by the Intermountain Uranium Corporation, but from information obtained from casual talks with the officers of that company and the mill at Monticello, it can be assumed that about 20 tons of ore running about .35% U_3O_8 was shipped. It is evident that for the amount of bulldozing done on access trails and the amount of drifting on this tunnel that the mill returns were discouraging enough to cause that corporation to cease mining and lease their property to the Mal Pais Mining and Engineering Company for a drilling program to block out an ore body.

Recommended Operation:

It is suggested that the Mal Pais Mining and Engineering Company continue its drilling program of drilling through the shinarump formation to the top of the moenkopi formation on 100' grid systems until a sizable ore body has been mapped out. At such a time as an ore body has been blocked out, mining operations will commence for the extraction and eventual shipping of this ore. It is the recommendation of the writer that an application for a D.M.A. loan be instigated and obtained to offset the cost of the exploratory drilling of this area and the cost of dead head work towards drifting for a blocked-out ore body.

Time of Exploration:

The approximate time involved to completely drill and block out a small mineable ore body will be in the neighborhood of three months. The time required to drill these claims completely and drive drifts to explore and reach these blocked-out ore bodies will approach a year and a half to two years. It must be kept in mind that while the log of drill holes will give a pretty concise picture of the ground beneath the claims surface, and the expected amount of ore to be found, tunnels or drifts must be driven into these blocked-out areas in order to prove the existence of ore forming a body as previously believed to exist by interpretations of drill logs and maps of possible ore found by the drilling program.

Conclusion:

From the geological picture of the area, the physical conditions of existing facilities such as roads, nearness of shipping points, etc., and from the amount of mineralized trees and other trash found in the shinarump on

these claims, it can be considered as a promising mining property. It can further be assumed by a knowledge of old stream beds found in the shinarump that an ore body exists somewhere behind the rim and in the vicinity of the three drill holes which prove to be mineralized by Babble (Geiger) counter probe. All efforts should be directed towards drilling to find and eventually block out such an ore body so as to commence mining operations as soon as possible to offset the cost of future drilling.

P. W. Peter

P. W. Peter, M.M.

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 1
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for two feet Geiger assay shows .20% U_3O_8

Babble Probe 76'-78' Babble count 100 on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	4	SG	L R	Medium	Massive	N	Cap rock
4	39	SS	Wh to L Br	Medium	Massive	N	
39	48	MS	Gy	Fine	Massive	N	
48	62.5	SS	Wh Yl	Medium	Massive	S	Soft
62.5	65	MS	Gy	Fine	Massive	N	
65	88	SS	Wh Yl	Fine	Massive	S	Interstitial MS
88	90	MS	Gy	Fine	Massive	N	Clay
90	100	MS	R	Fine	Massive	N	Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept 1952

NAME [illegible]

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 2 | Claim Conglomerate #2 | Date 8 Sept 1952
Depth 100' | Area Lavender Canyon | Logged C.F.P.
Collar Elev. | Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Interpretative Info. Hole mineralized for 6'. Geiger assay shows 5 feet of .20% U_3O_8, one foot of .30% U_3O_8.

Babble Probe 90'-96' babble count 100 on 5 scale 95'-96' 65 on 4 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	50	SS	Wh R Yl Br	Medium Fine	Massive	N	Cap rock
50	70	MS	Gy Bl	Fine	Massive	N	Interstitial S
70	72	SS	Yl Wh	Fine	Massive	N	
72	74	MS	Black	Fine	Free		Nonmineralized
74	85	SS	Gy Yl	Fine	Massive	S	
85	90	SS	Wh	Fine	Massive	Trce S	Hard
90	100	LS	Gy	Fine	Massive	S	Ore bed
100	-						Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept 1952

NAME
V. W. Fisher

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 3 | Claim Conglomerate #2 | Date 11 Sept 1952
Depth 99' | Area Lavender Canyon | Logged C.T.P.
Collar Elev. | Co.,State San Juan, Utah
Sec. 17 T. 31SR. 21E

Interpretative Info. Geiger probe shows mineralization of 3' at 93-96
Assay by counter .10% to .20% at 98'

Babble Probe 6" at 98' 100 on 5 scale 93'-96' 40+ on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	25	SS	L R	Fine	Massive	N	
25	38	SS	Wh	Fine	Massive	N	
38	58	MS	Gy	Coarse		N	
58	76	SS	Wh Yl	Fine	Soft	N	Laminations
76	84	MS	Gy	Fine	Massive		
84	91	SS	Wh	Medium	Massive	S	Interstitial Cbn
91	99	MS	Gy	Fine	Massive	S	Mineralized
99	—				Red beds		Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 11 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 4
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 17 Sept 1952
Logged C. F. P.

Interpretative Info. Mineralized between 72'-73'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	L R	Fine	Massive	N	
54	68	MS	Gy	Medium	Laminations		SS Interstitial
68	78	SS	Wh	Fine	Laminations	A	Mineralized 72'-73'
78	87	MS	Gy	Fine	Massive	N	
87	100½	SS	Wh	Fine	Massive	Limy	Probably Count
100½	104½	MS	R				Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
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Cbn - Carbonaceous
M - Massive
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A - Laminations Abundant

DATE 17 Sept 1952

NAME P. W. [illegible]

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 5
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31SR. 21E

Date 10 Sept 1952
Logged C.T.P.

Interpretative Info. Mineralization 68'-69'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	MS	Wh L R	Medium	Massive	N	
54	59	MS	Gy	Fine	Massive	N	
59	75	SS	Wh	Fine	Massive	S	68'-69' Mineralized
75	84	MS	Gy	Fine	Massive	N	
84	94	SS	Gy	Fine	Laminated	S	Lacey
94	96	MS	Gy	Fine	Massive	N	Limestone
96	104½	SS	R		Red beds		Toenkopi

CG - Conglomerate
SS - Sandstone
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CL - Clay
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Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

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L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME
P. P. Potter

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 6
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R.21E

Date 18 Sept 1952
Logged G.P.P.

Interpretative Info.

Babble Probe No babble probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	57	SS	Wh L Br	Medium	Massive	N	
57	66	MS	Gy	Fine	Massive	N	
66	80½	SS	Wh Yl	Fine	Laminated	N	Flint Chips Trees
80½	86	MS	Gy	Fine	Massive	N	
86	93	SS	Wh	Fine	Massive	S	Limey
93	95	MS	Gy	Fine	Massive	S	Limestone
95	100	MS	R	Fine	Red beds		Moenkopi

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CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

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Br - Brown
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Gn - Green
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Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME P. W. Peter

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 7
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged G.T.P.

Interpretative Info.

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	55	SS	L Br	Fine	Massive	N	
55	59	MS	Gy	Fine	Massive	N	
59	70	SS	Wh Gy	Fine	Massive	S	
70	73	MS	Gy	Fine	Massive	N	
73	76	SS	Wh	Fine	Laminations	N	
76	84½	MS	Gy	Fine	Massive	N	
84½	90	SS	Br	Fine	Laminated	Trace	Hard
90	100	MS	P.	[illegible]	Rod beds		Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
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Gn - Green
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A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME P. W. Peters

Mining Division
Date Rec'd
OCT 2 1952
BUREAU OF MINES
Denver, Colorado

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

GENERAL TECHNICAL DATA

FOR USE UNDER THE

DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dmea - 2748

Date received 10-27-52

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

Name and address of applicant

Date 10/16/52

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
P. W. Peter	Pres. (D)	New Co.	5,000	49	0	0	0
Marilyn J. Peter	V. Pres.	0	0	1	0	0	0
Roma Therrell	Sec.-Treas.(D)	0	0	1	0	0	0
John V. Therrell	Director	0	25,000	49	0	0	0
W. C. Kurts, Jr.	-	0	100,000	30	0	0	0
G. Saccomanno	-	0	50,000	10	0	0	0
A. R. Johnson	-	0	50,000	10	0	0	0
R. T. Counley	-	0	10,000	5	0	0	0
	Total	New Co.	x x x x x	155		x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$50,000.00	$34,500.00 Unissued	$100.00	345 Unissued	New Co.
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	None				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. New Company.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	See Drill Report				
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Mal Paso Mining & Eng. Co. (Name of company) By Tomas Thurrell (Signature of authorized official)

10/16/52 (Date) Secretary-Treasurer (Title)

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—63792-1

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

1. (a) Uranium oxide, vanadium oxide.

   (b) Copper, limited amounts, rare earths.

2. Name of mine claim - Conglomerate #1, Conglomerate #2, Lavendar #1 Lavendar #3, Lavendar #4 Undeveloped drilling operations.

   (a) Conglomerate #2 - No shafts. Others inapplicable.

   (b) Conglomerate #2 - 70' of drifts and crosscuts. Others inapplicable.

   (c) Conglomerate #2 - Covered by (b) above. Others inapplicable.

   (d) Conglomerate #2 - No other openings. Others inapplicable.

   Openings are not flooded. Size of drift 5'x5'. Face productive capacity 9 tons per 5' round.

3. (a) 50 miles northeast of Monticello, Utah.

   (b) Unorganized mining district.

   (c) Township 31S, Range 21E, Salt Lake P.M., Section 9 and Section 17.

   (d) San Juan County, Utah.

4. (a) Property under drilling exploration program by Mal Pais Mining and Engineering Company.

   (b) Operating as lessee.

5. Claims located 1951 by Intermountain Uranium Corporation. Production should commence in January 1953.

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

6. (a) The Mal Pais mining and Engineering Co. is a Colorado corporation engaged in the exploration, development, and mining of minerals. The company is managed by P. W. Peter, a graduate mining engineer from the Colorado School of Mines. Mr. Peter is a registered Professional Engineer in the State of Colorado, Classification - Mining Engineer. He has had experience in geophysical exploration in Quebec, Canada, mining experience in Utah, Colorado, New Mexico, and Virginia. The company's business is managed by Mr. J. V. Therrell. Mr. Therrell has had business experience with the Ordnance Branch, U. S. Army, Remington Arms Company and as Manager of U. S. Veterans Administration hospitals.

7. (a) The property was originally operated by the Intermountain Uranium Corporation. Operation consisted of bulldozing access trails and driving and opening on Conglomerate #2. Two 10-ton shipments were made to the mill at Monticello, Utah, but operations were suspended shortly thereafter due to the lack of experienced personnel. See attached report.

(b) No properties adjoin this region.

(c) Report enclosed.

8. Information recorded on Form MF 100.

9. Information recorded on Form MF 100.

10. None.

11. Information recorded on Form MF 100.

12. (a) See report and maps.

(b) (1) See drill hole chart.

(2) See drill hole chart.

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

13. Shipping and supply points 50 miles - 22 miles unimproved. County road, 3 miles trail, 25 miles highway. Residence - camp on claims.

14. Drilling water (creek) available 2 miles from operation. Drinking water (spring) available 5 miles from camp.

15. Personal convenience-gas engine welding and light plant. 110V AC 110V DC 200 Amp arc weld. 1700 watt.

16. Three men employed - mine engineer and drilling superintendent helper on wagon drill - general manager.

17. 1 - 210 Le Roi compressor, new May 1952
1 - H23 Cleveland drill
1 - HDR 10 Cleveland wagon drill
1 - 6x6 GMC truck, 4-wheel drive
1 - 4x4 Jeep pick-up truck, 4-wheel drive
1 - winch, Jeep mounted
1 - Oxweld cutting torch, tanks, and accessories
1 - Miller arc welding machine, gas operated
1 - Camping equipment, tents, cots, stove, dishes, etc.
1 - 200-gal. water tank
4 - 55-gal gasoline drums
1 - drum pump, diaphram type

18. See report enclosed, maps, and drill logs.

REPORT ON FIVE CLAIMS
LAVENDER CANYON
SAN JUAN COUNTY, UTAH

Location:

The Conglomerate #1, Conglomerate #2, Lavendar #1, Lavendar #3, Lavendar #4 are situated in section 9 and 17 of township 31 south, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah. These claims form a portion of the claims under lease from the Intermountain Uranium Corporation to the Mal Pais Mining and Engineering Company. They lie north and west of Lavendar Canyon approximately 2 miles above the junction of Lavendar Canyon with Indian Creek. The claims thus being on the rim to the left looking downstream in Lavendar Canyon.

Roads:

These claims are reached by access roads already constructed, county roads and the Moab-Monticello Highway. The claims are 50 miles from Monticello, the nearest village, 25 miles of this being on state highway improved, 23 miles on county maintained, unimproved roads, and 3 miles of access trails. All roads are passable during inclement weather and are sufficient to allow trucks as well as passenger cars access to the claims.

Camp:

The drilling camp of the Mal Pais Mining and Engineering Company consists of one 8x10 wall tent and one pyramid tent. Necessary cooking utensils, stove, light plant, water tank, etc., are now in use by the engineer in charge of drilling and his helper.

Equipment:

At present there is a complete wagon drill assembly at the camp consisting of a 210 cu. ft./min. LeRoi compressor mounted on a 6x6 GMC four-wheel drive truck and serving air to an HDR 10 Cleveland wagon drill and R 23 Cleveland sinker. Enough steel is on hand to drill holes up to 150' together with the necessary smaller items customary to drilling rigs of this type. The camp and drilling equipment are serviced by means of a 4x4 Jeep four-wheel drive pick-up truck. A small welding rig and acetylene cutting apparatus is available to handle the expected usual breakages encountered in field operations.

Drilling:

The drilling of the area to date consists of seven holes at depth of 100' passing through the shinarump formation and ending on top of the moenkopi formation. Three of these holes have been tested by means of a Nebble counter probe and indicate 18", 36" and 54" of mineralization present at

those depths in the shinarump formation. The other four holes have not as yet been probed but as they are drilled on a 100' grid system it can be assumed that they also will show mineralization, when probed by means of the Bubble counter. Drilling is still underway on a 100' grid system in an attempt to block out a mineable ore body in the near future.

Geology:

The area surrounding Lavendar Canyon and Indian Creek consists of several high mesas cut by deep canyons. The formations to be seen consist of (1) the Wingate, forming the high mesas and what could be called peaks of the area; (2) the chinles formation, found directly below the Wingate, composed of red yellow and blue shales, and forming a steep slope from the high steep Wingate walls to the shinarump sandstones below; (3) the shinarump sandstones and conglomerate are in place immediately below the chinles formation. This formation forms a rather extensive second mesa or rim ledge on which the five claims considered by this report are located. The shinarump is about 100 feet thick in this area. That is to say, the depth of drilling to pass through this second mesa, of partly chinles and shinarump formations to reach the moenkopi formation, is roughly 100 feet. Below the shinarump formation lies the moenkopi red beds which slope to the valley floor. This is a description of the section immediately around the claims in question and also is typical of the surrounding area.

The ore bearing formation as regards uranium, vanadium, rare earth and small amounts of copper is the shinarump. In this particular area, covered by these claims, the shinarump is composed of numerous trees which have formed into uranium bearing bodies enclosed within the shinarump conglomerate. These trees can be uncovered along the rim and Geiger counter readings along with assays (information as regards assays obtained from the Intermountain Uranium Corporation and officials at the mill at Monticello) indicate some of the trees have formed into uranium ore yielding as much as 40% U_3O_8. It can be reasonably assumed from the amount of trees and "trash" enclosed within the shinarump conglomerate on these claims that the site is one of an old stream bed of the Triassic period in the geological time table. It is reasonable to assume that there is a strong possibility of an ore body existing within the rim somewhere along this old channel. The drill log of the first three holes drilled on this spot tends to substantiate this as they indicated 18", 36" and 54" respectively of mineralization by Geiger probe. (Estimated safe assumption from actual drill logs.)

Old Workings:

The Intermountain Uranium Corporation opened a tunnel with two cross cuts, the total footage amounting to about 70 feet, 50 feet of main tunnel and 20 feet of cross cuts in an attempt to locate an ore body. Surface indications and indications within the tunnel show the presence of high grade

ore but limited quantities of such. Each face of these workings is apparently void of mineralization but upon close inspection it can be noted that mineralization is found near the bottom of these openings, indicating that the workings have passed over mineralized areas and thus the previous operators became discouraged causing a shut down.

No exact information is available at the present as regards the amount of ore shipped by the Intermountain Uranium Corporation, but from information obtained from casual talks with the officers of that company and the mill at Monticello, it can be assumed that about 20 tons of ore running about .35% U_3O_8 was shipped. It is evident that for the amount of bulldozing done on access trails and the amount of drifting on this tunnel that the mill returns were discouraging enough to cause that corporation to cease mining and lease their property to the Mal Pais Mining and Engineering Company for a drilling program to block out an ore body.

Recommended Operation:

It is suggested that the Mal Pais Mining and Engineering Company continue its drilling program of drilling through the shinarump formation to the top of the moenkopi formation on 100' grid systems until a sizable ore body has been mapped out. At such a time as an ore body has been blocked out, mining operations will commence for the extraction and eventual shipping of this ore. It is the recommendation of the writer that an application for a R.F.C. loan be instigated and obtained to offset the cost of the exploratory drilling of this area and the cost of dead head work towards drifting for a blocked-out ore body.

Time of Exploration:

The approximate time involved to completely drill and block out a small minable ore body will be in the neighborhood of three months. The time required to drill these claims completely and drive drifts to explore and reach these blocked-out ore bodies will approach a year and a half to two years. It must be kept in mind that while the log of drill holes will give a pretty concise picture of the ground beneath the claims surface, and the expected amount of ore to be found, tunnels or drifts must be driven into these blocked-out areas in order to prove the existence of ore forming a body as previously believed to exist by interpretations of drill logs and maps of possible ore found by the drilling program.

Conclusion:

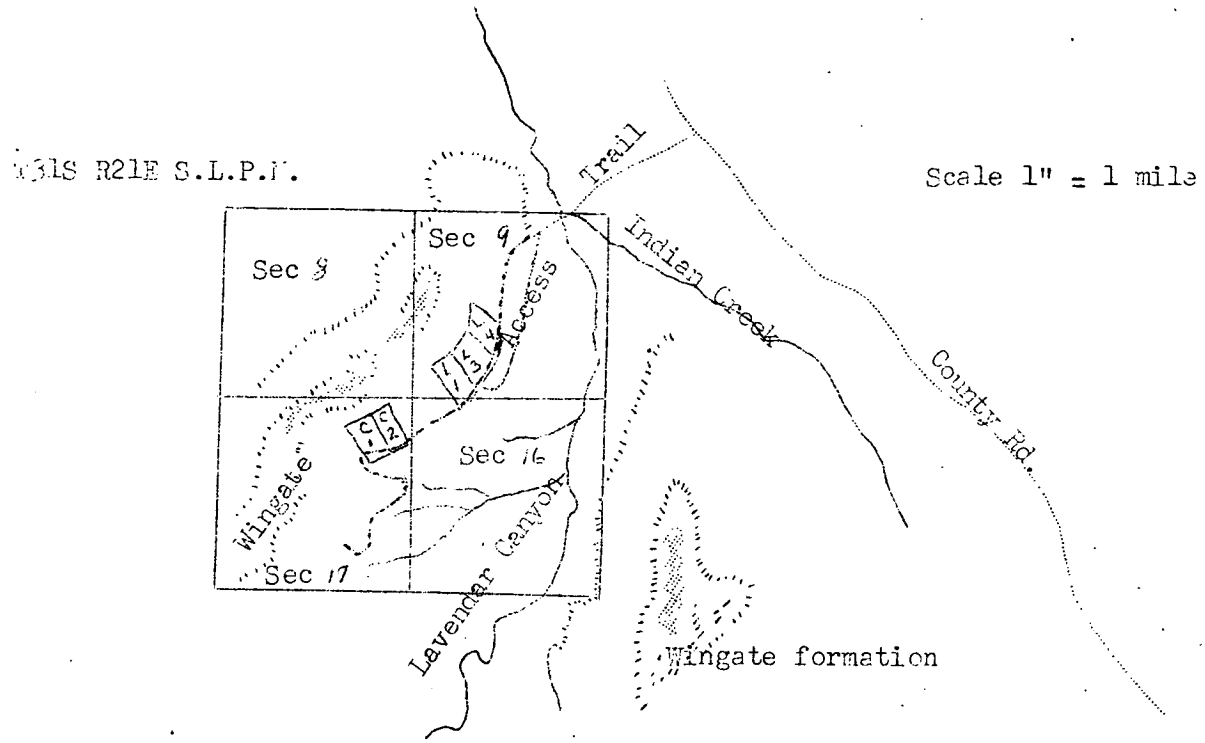
From the geological picture of the area, the physical conditions of existing facilities such as roads, nearness of shipping points, etc., and from the amount of mineralized trees and other trash found in the shinarump on

these claims, it can be considered as a promising mining property. It can further be assumed by a knowledge of old stream beds found in the shinarump that an ore body exists somewhere behind the rim and in the vicinity of the three drill holes which prove to be mineralized by Jabble (Geiger) counter probe. All efforts should be directed towards drilling to find and eventually block out such an ore body so as to commence mining operations as soon as possible to offset the cost of future drilling.

P. W. Peter

P. W. Peter, M.D.

Location Map
San Juan County
Utah



C_1 = Conglomerate #1

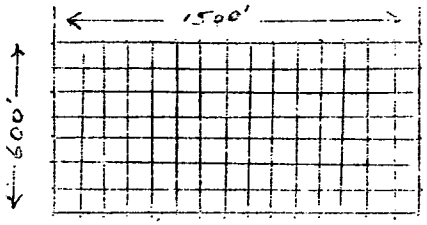
C_2 = Conglomerate #2

L_1 = Lavender #1

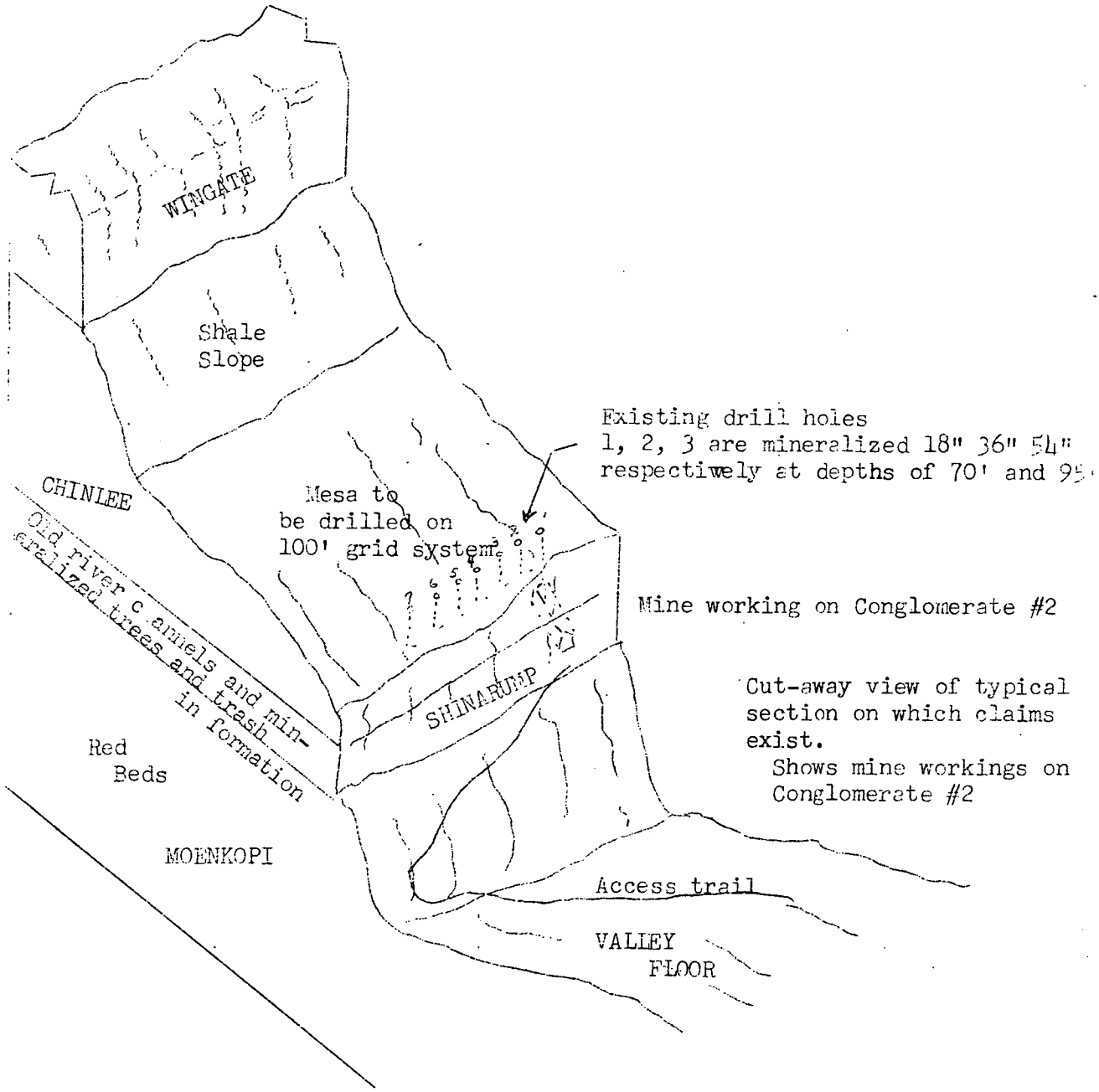
L_3 = Lavender #3

L_4 = Lavender #4

Note: Claims not to scale and thereby cover more actual area on sketch than would if drawn to scale.



Typical Grid System
100' Grid at Claim



Cut-away view of typical section on which claims exist.
Shows mine workings on Conglomerate #2

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 1
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for two feet Geiger assay shows .20% U_3O_8.

Babble Probe 76'-78' Babble count 100 on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	4	SS	L R	Medium	Massive	N	Cap rock
4	39	SS	Wh to LBr	Medium	Massive	N	
39	48	MS	Gy	Fine	Massive	N	
48	62.5	SS	Wh Yl	Medium	Massive	S	Soft
62.5	65	MS	Gy	Fine	Massive	N	
65	88	SS	Wh Yl	Fine	Massive	S	Interstitial MS
88	90	MS	Gy	Fine	Massive	N	Clay
90	100	MS	R	Fine	Massive	N	Meenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept 1952

NAME P. U. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 2 | Claim Conglomerate #2 | Date 8 Sept 1952
Depth 100' | Area Lavender Canyon | Logged G.T.P.
Collar Elev. | Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Interpretative Info. Hole mineralized for 6'. Geiger assay shows 5 feet of .20% U_3O_8, one foot of .30% U_3O_8.

Babble Probe 90'-96' babble count 100 on 5 scale 95'-96' 55 on 4 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	50	SS	Wh M Yl Br	Medium Fine	Massive	N	Cap rock
50	70	MS	Gy Bl	Fine	Massive	N	Interstitial SS
70	72	SS	Yl Wh	Fine	Massive	N	
72	74	MS	Black	Fine	Tree		Nonmineralized
74	85	SS	Gy Yl	Fine	Massive	S	
85	90	SS	Wh	Fine	Massive	Tree G	Hard
90	100	MS	Gy	Fine	Massive	S	Ore bed
100	-						Moenkopi

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Gn - Green
Bl - Blue
Yw - Yellow

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D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
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DATE 8 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 3 | Claim Conglomerate #2 | Date 11 Sept. 1952
Depth 99' | Area Lavender Canyon | Logged C.T.P.
Collar Elev. | Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Interpretative Info. Geiger probe shows mineralization of 3' at 93-96
Assay by counter .10% to .20% at 98'
Babble Probe 6" at 98' 100 on 5 scale 93'-96' 40+ on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	25	SS	L R	Fine	Massive	N	
25	38	SS	Wh	Fine	Massive	N	
38	58	MS	Gy	Coarse		N	
58	76	SS	Wh YL	Fine	Soft	N	Laminations
76	84	MS	Gy	Fine	Massive		
84	91	SS	Wh	Medium	Massive	S	Interstitial Cbn
91	99	LS	Gy	Fine	Massive	S	Mineralized
99	—				Red beds		Moenkopi

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CL - Clay
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R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 11 Sept 1952

NAME
F. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 4
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co., State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 17 Sept 1952
Logged C.T.P.

Interpretative Info. Mineralized between 72'-73'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	L R	Fine	Massive	N	
54	68	MS	Gy	Medium	Laminations		SS Interstitial
68	78	SS	Wh	Fine	Laminations	A	Mineralized 72'-73'
78	87	MS	Gy	Fine	Massive	N	
87	100½	SS	Wh	Fine	Massive	Limey	Probably Count
100½	104½	MS	R				Moonkopi

CG - Conglomerate
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ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 17 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 5
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info. Mineralization 68'-69'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	Wh L R	Medium	Massive	N	
54	59	MS	Gy	Fine	Massive	N	
59	75	SS	Wh	Fine	Massive	S	68'-69' Mineralized
75	84	MS	Gy	Fine	Massive	N	
84	94	SS	Gy	Fine	Laminated	S	Limey
94	96	MS	Gy	Fine	Massive	N	Limestone
96	104½	MS	R		Red beds		Moenkopi

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CL - Clay
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Gn - Green
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P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME P. W. Pratt

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 6
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co., State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No babble probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	57	SS	Wh L Br	Medium	Massive	N	
57	66	MS	Gy	Fine	Massive	N	
66	80½	SS	Wh Yl	Fine	Laminated	N	Flint Chips Trees
80½	86	MS	Gy	Fine	Massive	N	
86	93	SS	Wh	Fine	Massive	S	Limey
93	95	MS	Gy	Fine	Massive	S	Limestone
95	100	MS	R	Fine	Red beds		Moenkopi

CG - Conglomerate
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CL - Clay
SH - Shale
LS - Limestone

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Gn - Green
Bl - Blue
Yw - Yellow

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L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

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A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 7
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged G.P.P.

Interpretative Info.

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	55	SS	L Br	Fine	Massive	N	
55	59	MS	Gy	Fine	Massive	N	
59	70	SS	Wh Gy	Fine	Massive	S	
70	73	MS	Gy	Fine	Massive	N	
73	76	SS	Wh	Fine	Laminations	N	
76	84½	MS	Gy	Fine	Massive	N	
84½	90	SS	Br	Fine	Laminated	Trees	Hard
90	100	MS	R		Red beds		Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

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S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME F. W. FAIRR

Mining Division
Date Rec'd.
OCT 20 1952
BUREAU OF MINES
Denver, Colorado
Mining Division
Date Rec'd.
OCT 20 1952
BUREAU OF MINES
Denver, Colorado

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

OCT 27 1952

Form Approved.
Budget Bureau No. 42-R1026.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dmea-2748

Date received 10-27-52

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

Name and address of applicant

Date 10/16/52

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
P. W. Peter	Pres. (D)	New Co.	5,000	49	0	0	0
Marilyn J. Peter	V. Pres.	0	0	1	0	0	0
Roma Therrell	Sec.-Treas.(D)	0	0	1	0	0	0
John V. Therrell	Director	0	25,000	49	0	0	0
W. C. Kurtz, Jr.	-	0	100,000	30	0	0	0
G. Saccomanno	-	0	50,000	10	0	0	0
A. R. Johnson	-	0	50,000	10	0	0	0
R. T. Counley	-	0	10,000	5	0	0	0
	Total	New Co.	x x x x x	155		x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$50,000.00	$34,500.00 Unissued	$100.00	345 Unissued	New Co.
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	None				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. New Company.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	See Drill Report				
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Mal Lea Mining & Eng Co
(Name of company)

By Roma Pherell
(Signature of authorized official)

10/16/52
(Date)

Secretary - Treasurer
(Title)

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—63792-1

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

1. (a) Uranium oxide, vanadium oxide.

   (b) Copper, limited amounts, rare earths.

2. Name of mine claim - Conglomerate #1, Conglomerate #2, Lavendar #1 Lavendar #3, Lavendar #4 Undeveloped drilling operations.

   (a) Conglomerate #2 - No shafts. Others inapplicable.

   (b) Conglomerate #2 - 70' of drifts and crosscuts. Others inapplicable.

   (c) Conglomerate #2 - Covered by (b) above. Others inapplicable.

   (d) Conglomerate #2 - No other openings. Others inapplicable.

   Openings are not flooded. Size of drift 5'x5'. Face productive capacity 9 tons per 5' round.

3. (a) 50 miles northeast of Monticello, Utah.

   (b) Unorganized mining district.

   (c) Township 31S, Range 21E, Salt Lake P.M., Section 9 and Section 17.

   (d) San Juan County, Utah.

4. (a) Property under drilling exploration program by Mal Pais Mining and Engineering Company.

   (b) Operating as lessee.

5. Claims located 1951 by Intermountain Uranium Corporation. Production should commence in January 1953.

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

6. (a) The Mal Pais mining and Engineering Co. is a Colorado corporation engaged in the exploration, development, and mining of minerals. The company is managed by P. W. Peter, a graduate mining engineer from the Colorado School of Mines. Mr. Peter is a registered Professional Engineer in the State of Colorado, Classification - Mining Engineer. He has had experience in geophysical exploration in Quebec, Canada, mining experience in Utah, Colorado, New Mexico, and Virginia. The company's business is managed by Mr. J. V. Therrell. Mr. Therrell has had business experience with the Ordnance Branch, U. S. Army, Remington Arms Company and as Manager of U. S. Veterans Administration hospitals.

7. (a) The property was originally operated by the Intermountain Uranium Corporation. Operation consisted of bulldozing access trails and driving and opening on Conglomerate #2. Two 10-ton shipments were made to the mill at Monticello, Utah, but operations were suspended shortly thereafter due to the lack of experienced personnel. See attached report.

(b) No properties adjoin this region.

(c) Report enclosed.

8. Information recorded on Form MF 100.

9. Information recorded on Form MF 100.

10. None.

11. Information recorded on Form MF 100.

12. (a) See report and maps.

(b) (1) See drill hole chart.

(2) See drill hole chart.

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

13. Shipping and supply points 50 miles - 22 miles unimproved. County road, 3 miles trail, 25 miles highway. Residence - camp on claims.

14. Drilling water (creek) available 2 miles from operation. Drinking water (spring) available 5 miles from camp.

15. Personal convenience-gas engine welding and light plant. 110V AC 110V DC 200 Amp arc weld. 1700 watt.

16. Three men employed - mine engineer and drilling superintendent helper on wagon drill - general manager.

17. 1 - 210 Le Roi compressor, new May 1952
1 - H23 Cleveland drill
1 - HDR 10 Cleveland wagon drill
1 - 6x6 GMC truck, 4-wheel drive
1 - 4x4 Jeep pick-up truck, 4-wheel drive
1 - winch, Jeep mounted
1 - Oxweld cutting torch, tanks, and accessories
1 - Miller arc welding machine, gas operated
1 - Camping equipment, tents, cots, stove, dishes, etc.
1 - 200-gal. water tank
4 - 55-gal. gasoline drums
1 - drum pump, diaphram type

18. See report enclosed, maps, and drill logs.

REPORT ON FIVE CLAIMS
LAVENDAR CANYON
SAN JUAN COUNTY, UTAH

Location:

The Conglomerate #1, Conglomerate #2, Lavendar #1, Lavendar #3, Lavendar #4 are situated in section 9 and 17 of township 31 south, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah. These claims form a portion of the claims under lease from the Intermountain Uranium Corporation to the Mal Pais Mining and Engineering Company. They lie north and west of Lavendar Canyon approximately 2 miles above the junction of Lavendar Canyon with Indian Creek. The claims thus being on the rim to the left looking downstream in Lavendar Canyon.

Roads:

These claims are reached by access roads already constructed, county roads and the Moab-Monticello Highway. The claims are 50 miles from Monticello, the nearest village, 25 miles of this being on state highway improved, 23 miles on county maintained, unimproved roads, and 3 miles of access trails. All roads are passable during inclement weather and are sufficient to allow trucks as well as passenger cars access to the claims.

Camp:

The drilling camp of the Mal Pais Mining and Engineering Company consists of one 8x10 wall tent and one pyramid tent. Necessary cooking utensils, stove, light plant, water tank, etc., are now in use by the engineer in charge of drilling and his helper.

Equipment:

At present there is a complete wagon drill assembly at the camp consisting of a 210 cu. ft./min. LeRoi compressor mounted on a 6x6 GMC four-wheel drive truck and serving air to an HDR 10 Cleveland wagon drill and # 23 Cleveland sinker. Enough steel is on hand to drill holes up to 150' together with the necessary smaller items customary to drilling rigs of this type. The camp and drilling equipment are serviced by means of a 4x4 Jeep four-wheel drive pick-up truck. A small welding rig and acetylene cutting apparatus is available to handle the expected usual breakages encountered in field operations.

Drilling:

The drilling of the area to date consists of seven holes at depth of 100' passing through the shinarump formation and ending on top of the moenkopi formation. Three of these holes have been tested by means of a Bubble counter probe and indicate 18", 36" and 54" of mineralization present at

those depths in the shinarump formation. The other four holes have not as yet been probed but as they are drilled on a 100' grid system it can be assumed that they also will show mineralization, when probed by means of the Babble counter. Drilling is still underway on a 100' grid system in an attempt to block out a minesable ore body in the near future.

Geology:

The area surrounding Lavendar Canyon and Indian Creek consists of several high mesas cut by deep canyons. The formations to be seen consist of (1) the Kingate, forming the high mesas and what could be called peaks of the area; (2) the chinlee formation, found directly below the Kingate, composed of red yellow and blue shales, and forming a steep slope from the high steep Kingate walls to the shinarump sandstones below; (3) the shinarump sandstones and conglomerate are in place immediately below the chinlee formation. This formation forms a rather extensive second mesa or rim ledge on which the five claims considered by this report are located. The shinarump is about 100 feet thick in this area. That is to say, the depth of drilling to pass through this second mesa, of partly chinlee and shinarump formations to reach the moenkopi formation, is roughly 100 feet. Below the shinarump formation lies the moenkopi red beds which slope to the valley floor. This is a description of the section immediately around the claims in question and also is typical of the surrounding area.

The ore bearing formation as regards uranium, vanadium, rare earth and small amounts of copper is the shinarump. In this particular area, covered by these claims, the shinarump is composed of numerous trees which have formed into uranium bearing bodies enclosed within the shinarump conglomerate. These trees can be uncovered along the rim and Geiger counter readings along with assays (information as regards assays obtained from the Intermountain Uranium Corporation and officials at the mill at Monticello) indicate some of the trees have formed into uranium ore yielding as much as 40% U_3O_8. It can be reasonably assumed from the amount of trees and "trash" enclosed within the shinarump conglomerate on these claims that the site is one of an old stream bed of the Triassic period in the geological time table. It is reasonable to assume that there is a strong possibility of an ore body existing within the rim somewhere along this old channel. The drill log of the first three holes drilled on this spot tends to substantiate this as they indicated 18", 36" and 24" respectively of mineralization by Geiger probe. (Estimated safe assumption from actual drill logs.)

Old Workings:

The Intermountain Uranium Corporation opened a tunnel with two cross cuts, the total footage amounting to about 70 feet, 50 feet of main tunnel and 20 feet of cross cuts in an attempt to locate an ore body. Surface indications and indications within the tunnel show the presence of high grade

ore but limited quantities of such. Each face of these workings is apparently void of mineralization but upon close inspection it can be noted that mineralization is found near the bottom of these openings, indicating that the workings have passed over mineralized areas and thus the previous operators became discouraged causing a shut down.

No exact information is available at the present as regards the amount of ore shipped by the Intermountain Uranium Corporation, but from information obtained from casual talks with the officers of that company and the mill at Monticello, it can be assumed that about 20 tons of ore running about .35% U_3O_8 was shipped. It is evident that for the amount of bulldozing done on access trails and the amount of drifting on this tunnel that the mill returns were discouraging enough to cause that corporation to cease mining and lease their property to the Mal Pais Mining and Engineering Company for a drilling program to block out an ore body.

Recommended Operation:

It is suggested that the Mal Pais Mining and Engineering Company continue its drilling program of drilling through the shinarump formation to the top of the moenkopi formation on 100' grid systems until a sizable ore body has been mapped out. At such a time as an ore body has been blocked out, mining operations will commence for the extraction and eventual shipping of this ore. It is the recommendation of the writer that an application for a N.Y.A. loan be instigated and obtained to offset the cost of the exploratory drilling of this area and the cost of dead head work towards drifting for a blocked-out ore body.

Time of Exploration:

The approximate time involved to completely drill and block out a small mineable ore body will be in the neighborhood of three months. The time required to drill these claims completely and drive drifts to explore and reach these blocked-out ore bodies will approach a year and a half to two years. It must be kept in mind that while the log of drill holes will give a pretty concise picture of the ground beneath the claims surface, and the expected amount of ore to be found, tunnels or drifts must be driven into these blocked-out areas in order to prove the existence of ore forming a body as previously believed to exist by interpretations of drill logs and maps of possible ore found by the drilling program.

Conclusion:

From the geological picture of the area, the physical conditions of existing facilities such as roads, nearness of shipping points, etc., and from the amount of mineralized trees and other trash found in the shinarump on

these claims, it can be considered as a promising mining property. It can further be assumed by a knowledge of old stream beds found in the shinarump that an ore body exists somewhere behind the rim and in the vicinity of the three drill holes which prove to be mineralized by Gabole (Geiger) counter probe. All efforts should be directed towards drilling to find and eventually block out such an ore body so as to commence mining operations as soon as possible to offset the cost of future drilling.

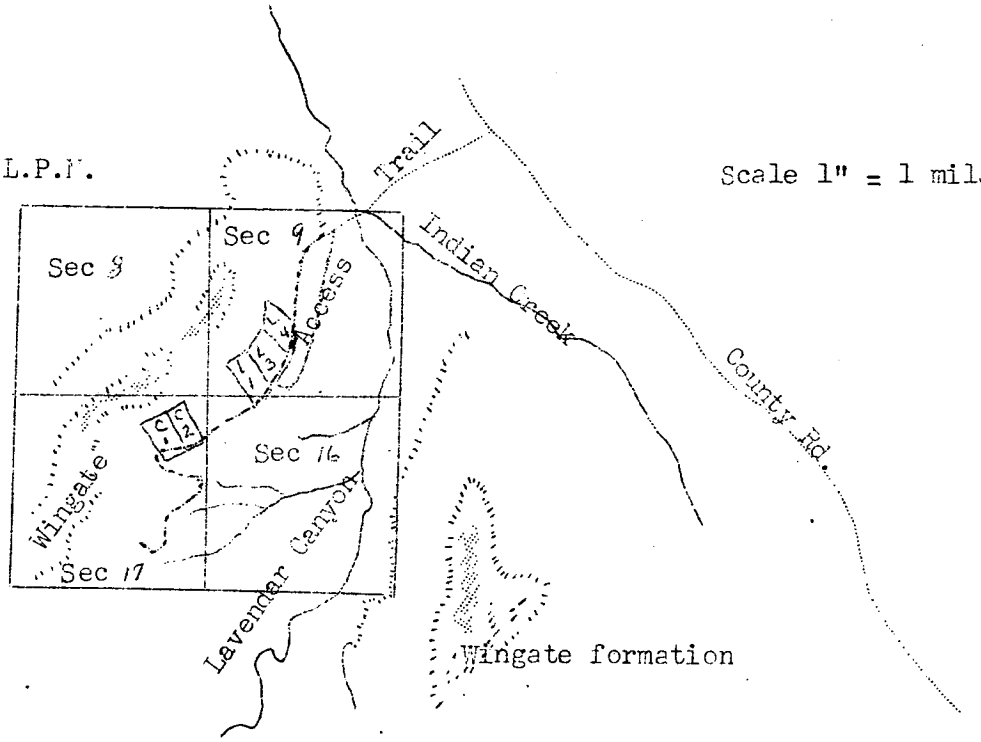
R. W. Peter

R. W. Peter, M.E.

Location Map
San Juan County
Utah

T31S R21E S.L.P.M.

Scale 1" = 1 mile



C_1 = Conglomerate #1

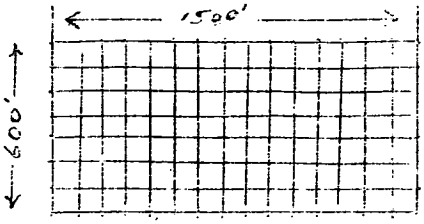
C_2 = Conglomerate #2

L_1 = Lavender #1

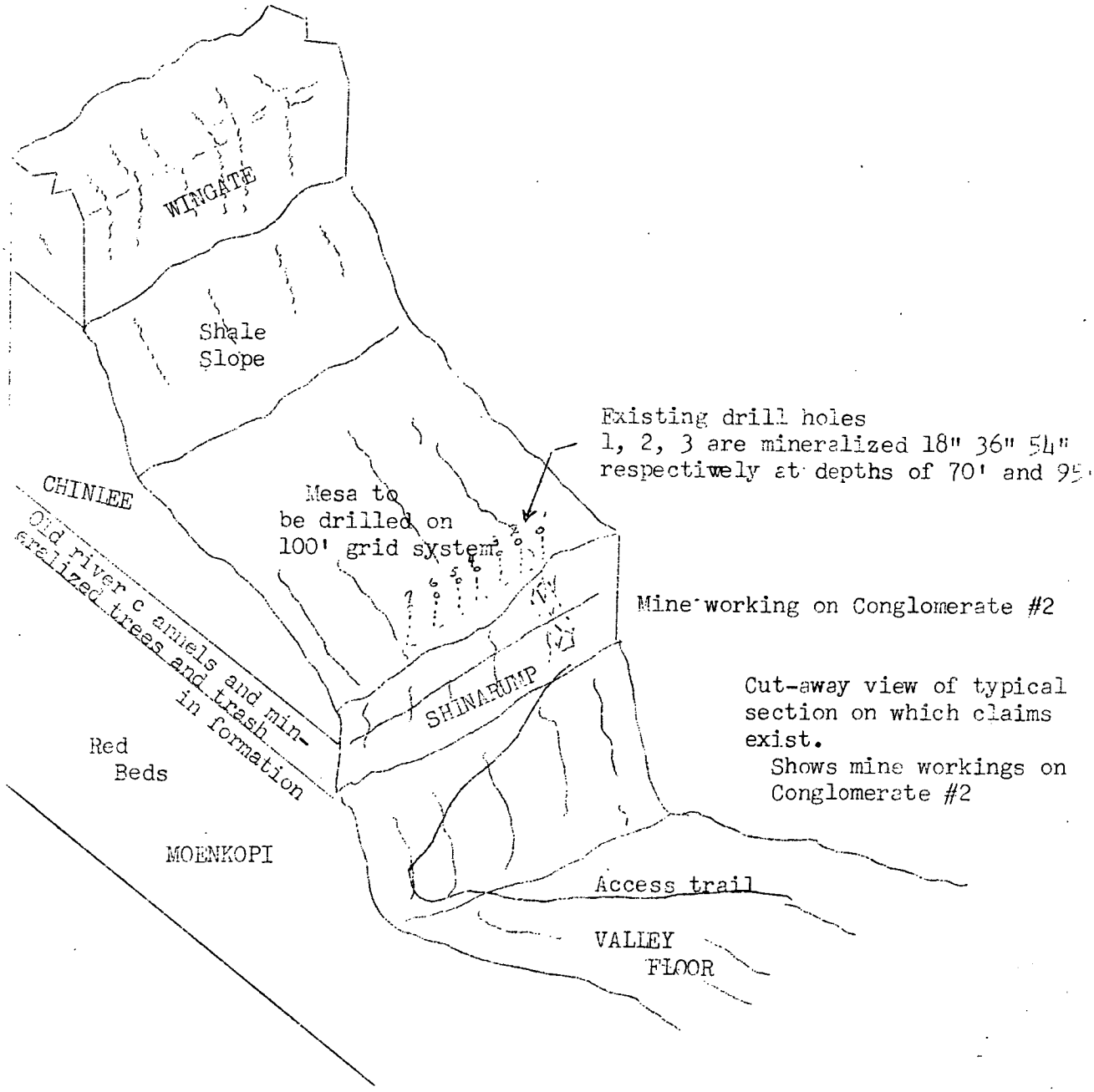
L_3 = Lavender #3

L_4 = Lavender #4

Note: Claims not to scale and thereby cover more actual area on sketch than would if drawn to scale.



Typical Grid System
100' Grid at Claim



MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 1
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for two feet Geiger assay shows .20% U_3O_8.

Babble Probe 76'-78' Babble count 100 on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	4	SS	L R	Medium	Massive	N	Cap rock
4	39	SS	Wh to LBr	Medium	Massive	N	
39	48	MS	Gy	Fine	Massive	N	
48	62.5	SS	Wh Yl	Medium	Massive	S	Soft
62.5	65	MS	Gy	Fine	Massive	N	
65	88	SS	Wh Yl	Fine	Massive	S	Interstitial MS
88	90	MS	Gy	Fine	Massive	N	Clay
90	100	MS	R	Fine	Massive	N	Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 2
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for 6'. Geiger assay shows 5 feet of .20% U_3O_8, one foot of .30% U_3O_8.

Babble Probe 90'-96' babble count 100 on 5 scale 95'-96' 55 on 4 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	50	SS	Wh R Yl Br	Medium Fine	Massive	N	Cap rock
50	70	MS	Gy Bl	Fine	Massive	N	Interstitial SS
70	72	SS	Yl Wh	Fine	Massive	N	
72	74	MS	Black	Fine	Tree		Nonmineralized
74	85	SS	Gy Yl	Fine	Massive	S	
85	90	SS	Wh	Fine	Massive	Tree S	Hard
90	100	LS	Gy	Fine	Massive	S	Ore bed
100	-						Moenkopi

CG - Conglomerate
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DATE 8 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 3
Depth 99'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 11 Sept. 1952
Logged C.T.P.

Interpretative Info. Geiger probe shows mineralization of 3' at 93-96
Assay by counter .10% to .20% at 98'

Babble Probe 6" at 98' 100 on 5 scale 93'-96' 40+ on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	25	SS	L R	Fine	Massive	N	
25	38	SS	Wh	Fine	Massive	N	
38	58	MS	Gy	Coarse		N	
58	76	SS	Wh YL	Fine	Soft	N	Laminations
76	84	MS	Gy	Fine	Massive		
84	91	SS	Wh	Medium	Massive	S	Interstitial Cbn
91	99	LS	Gy	Fine	Massive	S	Mineralized
99	—				Red beds		Moenkopi

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N - None
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Cbn - Carbonaceous
M - Massive
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DATE 11 Sept 1952

NAME P. W. PETER

1. ~~[illegible] Hodell~~

2. G. Mocke

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 4
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co., State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 17 Sept 1952
Logged C.T.P.

Interpretative Info. Mineralized between 72'-73'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	L R	Fine	Massive	N	
54	68	MS	Gy	Medium	Laminations		SS Interstitial
68	78	SS	Wh	Fine	Laminations	A	Mineralized 72'-73'
78	87	MS	Gy	Fine	Massive	N	
87	100½	SS	Wh	Fine	Massive	Limey	Probably Count
100½	104½	MS	R				Moenkopi

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DATE 17 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 5
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info. Mineralization 68'-69'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	Wh L R	Medium	Massive	N	
54	59	MS	Gy	Fine	Massive	N	
59	75	SS	Wh	Fine	Massive	S	68'-69' Mineralized
75	84	MS	Gy	Fine	Massive	N	
84	94	SS	Gy	Fine	Laminated	S	Limey
94	96	MS	Gy	Fine	Massive	N	Limestone
96	104½	MS	R		Red beds		Moenkopi

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DATE 18 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 6
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No babble probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	57	SS	Wh L Br	Medium	Massive	N	
57	66	MS	Gy	Fine	Massive	N	
66	80½	SS	Wh Yl	Fine	Laminated	N	Flint Chips Trees
80½	86	MS	Gy	Fine	Massive	N	
86	93	SS	Wh	Fine	Massive	S	Limey
93	95	MS	Gy	Fine	Massive	S	Limestone
95	100	MS	R	Fine	Red beds		Moenkopi

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DATE 18 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 7
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	55	SS	L Br	Fine	Massive	N	
55	59	MS	Gy	Fine	Massive	N	
59	70	SS	Wh Gy	Fine	Massive	S	
70	73	MS	Gy	Fine	Massive	N	
73	76	SS	Wh	Fine	Laminations	N	
76	84½	MS	Gy	Fine	Massive	N	
84½	90	SS	Br	Fine	Laminated	Trees	Hard
90	100	MS	R		Red beds		Moenkopi

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ST - Siltstone
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CL - Clay
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DATE 18 Sept 1952

NAME P. W. PETER

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

OCT 27 1952

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. Dmea-2748
Metal or Mineral
Date Received 10-27-52
Amount $
Participation (Government %)

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

Name and address of applicant

Date 10/16/52

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.
   See sketch and report.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.
    None.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Mal Paia Mining & Eng. Co. By Thomas Churrell
(Name of company) (Signature of authorized official)

10/16/52 Secretary - Treasurer
(Date) (Title)

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—64067-2

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

1. (a) The property involved is situate in sections 9 and 17, Township 31 south Range 21 East of the Salt Lake Principal Meridian. The area to be drilled is north and west of a spot of land in section 16 of the above township known as "The Island." Drilling will be conducted along an exposed rim immediately above the shinarump formation. Roads exist which allow access to the area and the rim.

   (b) Copy of lease enclosed.

   (c) Legal description - Conglomerate #1, Book R-2, page 353. Conglomerate #2, Book R-2, page 353. Lavendar #1, Book R-2, page 354. Lavendar #3, Book R-3, page 287. Lavendar #4, Book T-8, page 168. All recorded in office of County Clerk, San Juan County, Utah. Situate as stated in 1 (a).

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

2. (a) Uranium, vanadium, rare earths, copper.

   (b) See engineering report.

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

3. (a) Proposed work involved to drill these claims and block out an ore body can be shown by the following outline:

(1) Continue drilling on a 100' grid system.

(2) Offset mineralized holes at 25' intervals until a body of ore is completely blocked-out.

(3) Extend tunnels having their portals at proper heights along the rim to afford proper haulage, drainage, and extraction of blocked-out ore bodies.

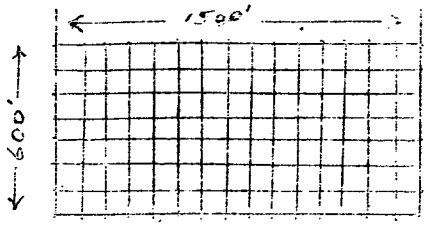
(4) Lay off ore bodies for retreating mining system of proper method for each body of ore. This depending entirely upon the way each ore body lies in respect to the surrounding ground.

Costs of drilling these claims can be estimated at $.50 per foot of hole drilled. Holes will be on an average of 100 feet deep and to cover one claim 600'x1500' 96 holes will be required to drill on a 100' grid system. By mathematics 96 holes times 100 feet deep equals 9600 feet of hole @ $.50 per foot is $4800.00 to completely drill one claim. Multiply this by five claims and drilling costs will approach $24,000.00. This cost can be offset by opening and mining small portions of ore bodies as they are blocked out. The cost of deadhead work to open blocked-out ore bodies can only be roughly estimated as the distance of deadhead drifting cannot be known until such an ore body is blocked out. However, assuming that an ore body exists 100 feet from the surface rim and a 6x5 tunnel is driven to tap this ore body, the estimated cost of driving this tunnel will be about $37.50 per foot, or $3,750.00. Added to this cost will be a surface plant consisting of ore bin to receive ore when reached, track mine car, mucking machine or slusher and compressor with proper housing. Again an estimated cost of $7,700.00. Thus the total cost to block out a small ore body which can be used to offset the total cost of the operation will approach $4,800.00 + $3,750.00 + $7,700.00 or $16,250.00. The entire operation can be estimated at

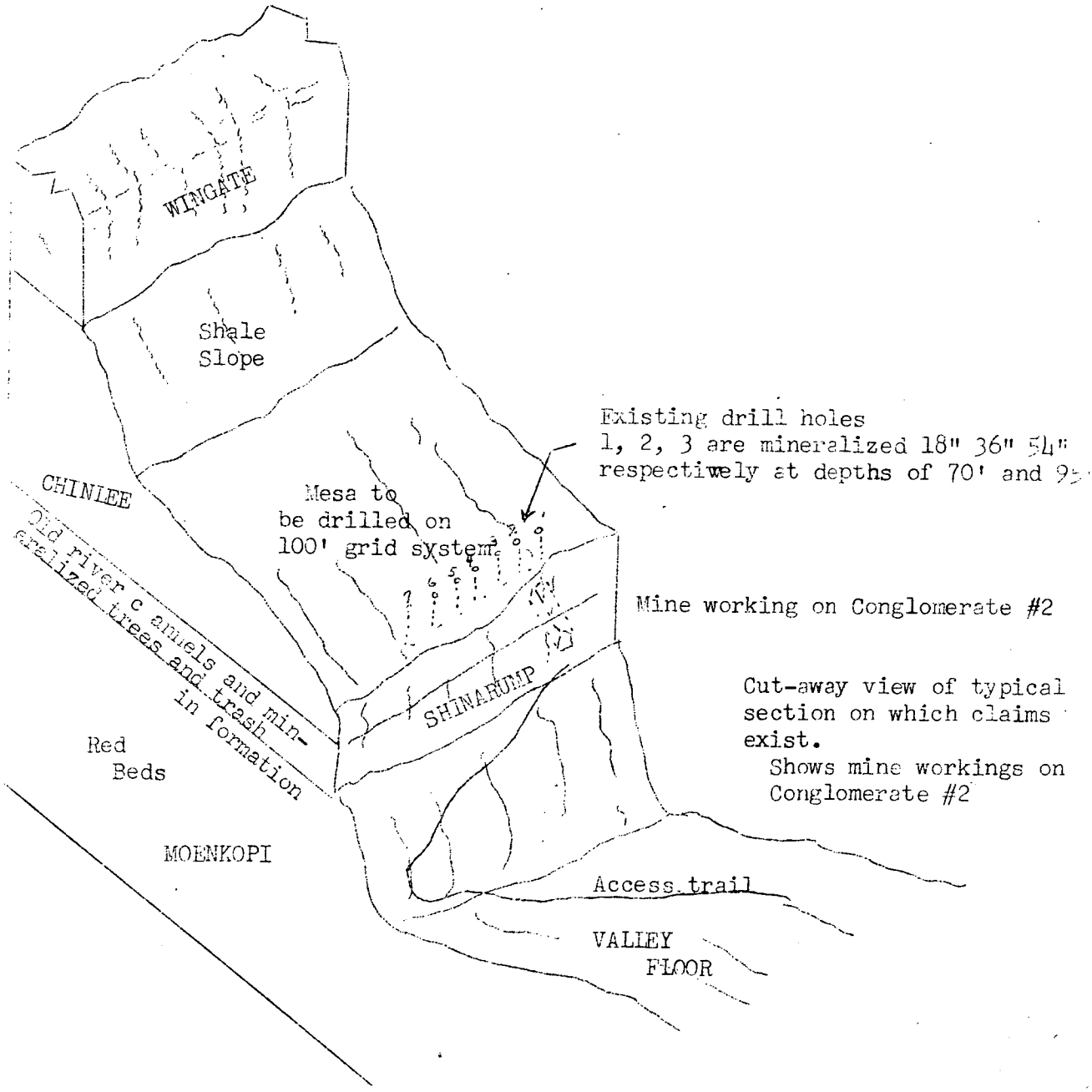
Drilling	$24,000.00	for 100' grid system
	11,250.00	drifting and opening 3 ore bodies
	23,100.00	3 surface plants as described above
	$58,350.00	Total cost of exploration

These are very rough estimates and will be on the low side of probable costs. However, it can be assumed by work already accomplished in the area that mining operations will probably start within three months and returns from this will offset the cost of further exploration. Thus $20,000.00 will be sufficient to block out a small portion of an existing ore body and open it for actual mining.

(b) Commence immediately. Complete in two years.



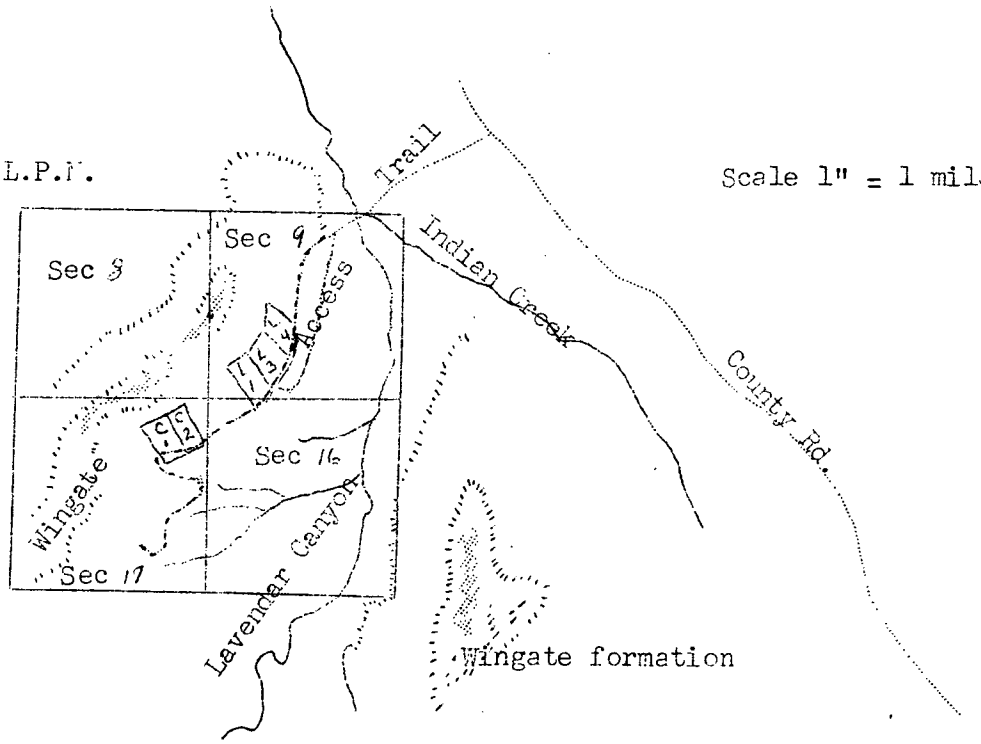
Typical Grid System
100' Grid at Claim



Location Map
San Juan County
Utah

T31S R21E S.L.P.M.

Scale 1" = 1 mile



C_1 = Conglomerate #1

C_2 = Conglomerate #2

L_1 = Lavender #1

L_3 = Lavender #3

L_4 = Lavender #4

Note: Claims not to scale and thereby cover more actual area on sketch than would if drawn to scale.

Form MF103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

5. Existing facilities:

1 - 8x10 wall tent
1 - 6x8 pyramid tent
1 - camp stove complete with dishes, etc.
No existing mining facilities
Access trails in need of repair - Cost estimate $500

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

6. Additional facilities:

	Cost
2 - buildings	$1,500.00
1 - mine building	750.00

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

7. Operating equipment:

(a) No rental

(b) Purchased

	Cost	
1 - 315 cuft Ingersol Rand Compressor	$7,000.00	5 yr life
2 - Thor 45# hammers	700.00	5 yr life
2 - Jack legs	400.00	5 yr life
Hoses and couplings	150.00	1 yr life
Steel and pipe	150.00	1 yr life

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

8. 2 - miners @ $12.00/day
   2 - drillers @ $12.00/day
   1 - engineer @ $325.00/month
   1 - manager @ $400.00/month

Form MT 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

9. Cost of materials, etc.

		Cost
Materials		$325.00
Hoses	$100.00	
Couplings	25.00	
Steel	100.00	
Pipe	50.00	
Nails)	50.00	
Miscellaneous)		
Assays		200.00
Accounting		250.00
General		200.00
		$975.00

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

10. (a) $2,000.00

(b) Yes

C O P Y

C O P Y

MINING CLAIM LEASE AGREEMENT

THIS AGREEMENT, Made and entered into in duplicate this 26th day of August, 1952, by and between the Intermountain Uranium Corporation, a Utah Corporation, whose principal place of business is Monticello, San Juan County, Utah, (hereinafter referred to as "Lessors"), and MAL PAIS MINING & ENGINEERING CO., a Colorado corporation, (hereinafter referred to as "Lessee"); WITNESSETH:

That Lessor, for and in consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed and by Lessee to be kept and performed, does hereby lease and demise unto Lessee, the following described mining claims located in unorganized mining district in Township 31 South, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah, all as more fully described in the Location Certificates which were recorded in the office of the Clerk and Recorder of San Juan County, Utah, as follows:

Name of Claim	Book and Page in County Recorder's Book at which recorded	
	Book	Page
Conglomerate #1	R-2	353
Conglomerate #2	R-2	353
Lavendar #1	R-2	354
Lavendar #3	R-3	287
Lavendar #4	T-8	168
Lavendar #5	T-8	170
Lavendar #6	T-8	171
Lavendar #7	T-8	172
Lavendar #8	T-8	173
Lavendar #9	T-8	174
Lavendar #10	T-8	175

Name of Claim	Book and Page in County Recorder's Book at which recorded	
	Book	Page
Aqua #1	R-3	295
Aqua #2	R-3	295
Aqua #3	R-3	295
Aqua #4	R-3	297
Aqua #5	R-3	297
Aqua #6	R-3	297
Aqua #7	R-3	297
Aqua #8	R-3	321
Aqua #9	R-3	321
Aqua #10	R-3	322
Conglomerate #3	R-4	26
Conglomerate #4	R-4	26
Conglomerate #5	R-4	26
Conglomerate #6	R-4	27
Conglomerate #7	R-4	27
Owochomo #1	R-3	7
Owochomo #2	R-3	7
Owochomo #3	R-3	8
Owochomo #4	R-3	8
Owochomo #5	R-3	8
Owochomo #6	R-3	9
Inspiration #1	R-3	9
Inspiration #2	R-3	9
Inspiration #3	R-3	10
Inspiration #4	R-3	10
Inspiration #5	R-3	11
Inspiration #6	R-3	11
Indian Creek #1	R-3	11
Indian Creek #2	R-3	12
Indian Creek #3	R-3	12

TO HAVE AND TO HOLD the same for a term of five years from the date hereof unless sooner abandoned by Lessee pursuant to the terms hereof.

And in consideration thereof, Lessee does hereby covenant with Lessor as follows:

1. To enter upon said mining property and work the same in a manner consistent with good and economical mining practices so as to take out the greatest amount of ore possible with due regard to the development and preservation of the same as mining property and keeping as high as practicable the grade of ore being so mined.

2. To work and mine said premises as aforesaid from the date of this lease, the Lessee, however, reserving the right to quit and abandon said claims and this lease at any time after six months from the date of the execution of this agreement if, in the opinion of the Lessee, said claims are not susceptible of profitable operation.

3. To allow said Lessor and his agent from time to time to enter upon and into all parts of mining operations upon said mining claims for purposes of inspection.

4. Not to assign this lease or any interest thereunder nor sublet the said premises or any part thereof without the written consent of said Lessor nor to allow any person not in privity with the parties hereto to take or hold possession of said premises or any part thereof.

5. To pay said Lessor as royalty fifteen per cent (15%) of the net mill returns of all ores mined from said claims by Lessee, such payment to be made by delivery of such ore with all convenient speed in lots as mined to some mill or regular ore buyer and leaving with such mill or ore buyer the percentage of mill returns aforesaid for delivery to Lessor. For the purpose of this contract, "net mill returns" shall mean such sums as shall be paid for the values in the ore after deducting all charges for carriage in any form, assays and mill charges. Should the uranium oxide content of ore mined and the volume thereof be sufficient to qualify for a bonus from the government, Lessor shall be entitled to receive fifteen per cent (15%) as his share of such bonus. Development allowances and transportation allowances, as set forth by the government for the development and transportation of uranium, are to be retained by the Lessee as Lessee's sole property. When Lessee is awarded transportation allowances on

uranium ore, as set forth by the government, such sums paid for the transportation of uranium ore by the government shall be deducted from the total carriage charges to arrive at an adjusted carriage charge to be used in calculating the net mill returns of uranium ore.

6. To do and perform the necessary assessment work on all claims in connection with this agreement during the life of the lease.

7. To indemnify and hold harmless Lessor from any and all loss or damage and from all claims for injury, death loss or damage of any kind or character and by whomsoever suffered or asserted occasioned by or in connection with any work performed by Lessee, its agents or employees.

8. To promptly pay all bills for labor and materials incurred in Lessee's operations hereunder and to indemnify and save harmless Lessor from all claims and liability of every kind and nature which may or might be incurred by them by reason of operations hereunder.

9. To at all times fully comply with the provisions of the Workmen's Compensation laws of the State of Utah.

IT IS MUTUALLY AGREED That if Lessee is in possession of said premises under this lease on the date five years from date and is conducting mining operations on said premises at that time, then Lessee shall have the option to remain on said premises and conduct operations thereon so long as mining operations, in the opinion of the Lessee, continue to be profitable on any of the claims, provided that Lessee fully and faithfully complies with each and all of the covenants by it to be kept and performed as herein stated.

On any termination hereof, the Lessee shall have the right to remove from said claims at any time within the ninety-day period from and after the date of termination, all equipment placed on the claims by Lessee.

In the event that Lessee shall conduct a core drilling program or wagon drilling program on said claims, a copy of all drill logs, analyses and other pertinent data shall be supplied to Lessor.

Dated at Monticello, Utah, the day and year first above written.

INTERMOUNTAIN URANIUM CORP.

By (/s/ Don B. McAffee)
President
Lessor

MAL PAIS MINING & ENGINEERING CO.

By (/s/ Philip W. Peter)
President
Lessee

State of Utah)
) ss.
County of San Juan)

On this 26th day of August, 1952, personally appeared before me Don B. McAffee, president of the Intermountain Uranium Corporation, and Philip W. Peter, president of the Mal Pais Mining & Engineering Co., each of whom duly acknowledged that he executed the foregoing instrument on behalf of his respective corporation and by authority of the by-laws of his respective corporation, and for and on behalf of his respective corporation.

/s/ F. Bennion Redd
Notary public, residing
at Monticello, Utah.

My commission expires 6-14-55.

REPORT ON FIVE CLAIMS
LAVENDAR CANYON
SAN JUAN COUNTY, UTAH

Location:

The Conglomerate #1, Conglomerate #2, Lavendar #1, Lavendar #3, Lavendar #4 are situated in section 9 and 17 of township 31 south, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah. These claims form a portion of the claims under lease from the Intermountain Uranium Corporation to the Mal Pais Mining and Engineering Company. They lie north and west of Lavendar Canyon approximately 2 miles above the junction of Lavendar Canyon with Indian Creek. The claims thus being on the rim to the left looking downstream in Lavendar Canyon.

Roads:

These claims are reached by access roads already constructed, county roads and the Moab-Monticello Highway. The claims are 50 miles from Monticello, the nearest village, 25 miles of this being on state highway improved, 23 miles on county maintained, unimproved roads, and 3 miles of access trails. All roads are passable during inclement weather and are sufficient to allow trucks as well as passenger cars access to the claims.

Camp:

The drilling camp of the Mal Pais Mining and Engineering Company consists of one 8x10 wall tent and one pyramid tent. Necessary cooking utensils, stove, light plant, water tank, etc., are now in use by the engineer in charge of drilling and his helper.

Equipment:

At present there is a complete wagon drill assembly at the camp consisting of a 210 cu. ft./min. LeRoi compressor mounted on a 6x6 GMC four-wheel drive truck and serving air to an HDR 10 Cleveland wagon drill and H 23 Cleveland sinker. Enough steel is on hand to drill holes up to 150' together with the necessary smaller items customary to drilling rigs of this type. The camp and drilling equipment are serviced by means of a 4x4 Jeep four-wheel drive pick-up truck. A small welding rig and acetylene cutting apparatus is available to handle the expected usual breakages encountered in field operations.

Drilling:

The drilling of the area to date consists of seven holes at depth of 100' passing through the shinarump formation and ending on top of the moenkopi formation. Three of these holes have been tested by means of a Babble counter probe and indicate 18", 36" and 54" of mineralization present at

necessarily those depths in the shinarump formation. The other four holes have not as yet been probed but as they are drilled on a 100' grid system it can be assumed that they also will show mineralization, when probed by means of the Babble counter. Drilling is still underway on a 100' grid system in an attempt to block out a mineable ore body in the near future.

Geology:

The area surrounding Lavendar Canyon and Indian Creek consists of several high mesas cut by deep canyons. The formations to be seen consist of (1) the Wingate, forming the high mesas and what could be called peaks of the area; (2) the chinlee formation, found directly below the Wingate, composed of red yellow and blue shales, and forming a steep slope from the high steep Wingate walls to the shinarump sandstones below; (3) the shinarump sandstones and conglomerate are in place immediately below the chinlee formation. This formation forms a rather extensive second mesa or rim ledge on which the five claims considered by this report are located. The shinarump is about 100 feet thick in this area. That is to say, the depth of drilling to pass through this second mesa, of partly chinlee and shinarump formations to reach the moenkopi formation, is roughly 100 feet. Below the shinarump formation lies the moenkopi red beds which slope to the valley floor. This is a description of the section immediately around the claims in question and also is typical of the surrounding area.

The ore bearing formation as regards uranium, vanadium, rare earth and small amounts of copper is the shinarump. In this particular area, covered by these claims, the shinarump is composed of numerous trees which have formed into uranium bearing bodies enclosed within the shinarump conglomerate. These trees can be uncovered along the rim and Geiger counter readings along with assays (information as regards assays obtained from the Intermountain Uranium Corporation and officials at the mill at Monticello) indicate some of the trees have formed into uranium ore yielding as much as 40% U_3O_8. It can be reasonably assumed from the amount of trees and "trash" enclosed within the shinarump conglomerate on these claims that the site is one of an old stream bed of the Triassic period in the geological time table. It is reasonable to assume that there is a strong possibility of an ore body existing within the rim somewhere along this old channel. The drill log of the first three holes drilled on this spot tends to substantiate this as they indicated 18", 36" and 54" respectively of mineralization by Geiger probe. (Estimated safe assumption from actual drill logs.) assays?

Old Workings:

The Intermountain Uranium Corporation opened a tunnel with two cross cuts, the total footage amounting to about 70 feet, 50 feet of main tunnel and 20 feet of cross cuts in an attempt to locate an ore body. Surface indications and indications within the tunnel show the presence of high grade

ore but limited quantities of such. Each face of these workings is apparently void of mineralization but upon close inspection it can be noted that mineralization is found near the bottom of these openings, indicating that the workings have passed over mineralized areas and thus the previous operators became discouraged causing a shut down.

No exact information is available at the present as regards the amount of ore shipped by the Intermountain Uranium Corporation, but from information obtained from casual talks with the officers of that company and the mill at Monticello, it can be assumed that about 20 tons of ore running about .35% U_3O_8 was shipped. It is evident that for the amount of bulldozing done on access trails and the amount of drifting on this tunnel that the mill returns were discouraging enough to cause that corporation to cease mining and lease their property to the Mal Pais Mining and Engineering Company for a drilling program to block out an ore body.

Recommended Operation:

It is suggested that the Mal Pais Mining and Engineering Company continue its drilling program of drilling through the shinarump formation to the top of the moenkopi formation on 100' grid systems until a sizable ore body has been mapped out. At such a time as an ore body has been blocked out, mining operations will commence for the extraction and eventual shipping of this ore. It is the recommendation of the writer that an application for a D.M.A. loan be instigated and obtained to offset the cost of the exploratory drilling of this area and the cost of dead head work towards drifting for a blocked-out ore body.

Time of Exploration:

The approximate time involved to completely drill and block out a small mineable ore body will be in the neighborhood of three months. The time required to drill these claims completely and drive drifts to explore and reach these blocked-out ore bodies will approach a year and a half to two years. It must be kept in mind that while the log of drill holes will give a pretty concise picture of the ground beneath the claims surface, and the expected amount of ore to be found, tunnels or drifts must be driven into these blocked-out areas in order to prove the existence of ore forming a body as previously believed to exist by interpretations of drill logs and maps of possible ore found by the drilling program.

Conclusion:

From the geological picture of the area, the physical conditions of existing facilities such as roads, nearness of shipping points, etc., and from the amount of mineralized trees and other trash found in the shinarump on

these claims, it can be considered as a promising mining property. It can further be assumed by a knowledge of old stream beds found in the shinarump that an ore body exists somewhere behind the rim and in the vicinity of the three drill holes which prove to be mineralized by Babble (Geiger) counter probe. All efforts should be directed towards drilling to find and eventually block out such an ore body so as to commence mining operations as soon as possible to offset the cost of future drilling.

P. W. Peter, E.M.

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 1
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for two feet Geiger assay shows .20% U_3O_8

Babble Probe 76'-78' Babble count 100 on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	4	SS	L R	Medium	Massive	N	Cap rock
4	39	SS	WhtoL Br	Medium	Massive	N	
39	48	MS	Gy	Fine	Massive	N	
48	62.5	SS	Wh Yl	Medium	Massive	S	Soft
62.5	65	MS	Gy	Fine	Massive	N	
65	88	SS	Wh Yl	Fine	Massive	S	Interstitial MS
88	90	MS	Gy	Fine	Massive	N	Clay
90	100	MS	R	Fine	Massive	N	Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept 1952

NAME ~~P. V. FOSTER~~

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 2
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co., State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for 6'. Geiger assay shows 5 feet of .20% U_3O_8, one foot of .30% U_3O_8.

Babble Probe 90'-96' bauble count 100 on 5 scale 95'-96' 55 on 4 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	50	SS	Wh R Yl Br	Medium Fine	Massive	N	Cap rock
50	70	MS	Gy Bl	Fine	Massive	N	Interstitial S
70	72	SS	Yl Wh	Fine	Massive	N	
72	74	MS	Black	Fine	Tree		Nonmineralized
74	85	SS	Gy Yl	Fine	Massive	S	
85	90	SS	Wh	Fine	Massive	Tree S	Hard
90	100	LS	Gy	Fine	Massive	S	Ore bed
100	-						Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept 1952

NAME P. W. FSTER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 3
Depth 99'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31SR. 21E

Date 11 Sept 1952
Logged C.T.P.

Interpretative Info. Geiger probe shows mineralization of 3' at 93-96
Assay by counter .10% to .20% at 98'

Babble Probe 6" at 98' 100 on 5 scale 93'-96' 40+ on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	25	SS	L R	Fine	Massive	N	
25	38	SS	Wh	Fine	Massive	N	
38	58	MS	Gy	Coarse		N	
58	76	SS	Wh Yl	Fine	Soft	N	Laminations
76	84	MS	Gy	Fine	Massive		
84	91	SS	Wh	Medium	Massive	S	Interstitial Cbn
91	99	LS	Gy	Fine	Massive	S	Mineralized
99	—				Red beds		Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 11 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole #4
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 17 Sept 1952
Logged C. T. P.

Interpretative Info. Mineralized between 72'-73'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	L R	Fine	Massive	N	
54	68	MS	Gy	Medium	Laminations		SS Interstitial
68	78	SS	Wh	Fine	Laminations	A	Mineralized 72'-73'
78	87	MS	Gy	Fine	Massive	N	
87	100½	SS	Wh	Fine	Massive	Limey	Probably Count
100½	104½	MS	R				Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 17 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 5
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info. Mineralization 68'-69'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	Wh L R	Medium	Massive	N	
54	59	LS	Gy	Fine	Massive	N	
59	75	SS	Wh	Fine	Massive	S	68'-69' Mineralized
75	84	MS	Gy	Fine	Massive	N	
84	94	SS	Gy	Fine	Laminated	S	Limey
94	96	MS	Gy	Fine	Massive	N	Limestone
96	104½	MS	R		Red beds		Moenkopi

CG - Conglomerate
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CL - Clay
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R - Red
Gy - Gray
Gn - Green
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Yw - Yellow

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L - Light
D - Dark
P Br - Pale Brown
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Yw Gy - Yellow Gray

N - None
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A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 6
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R.21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No babble probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	57	SS	Wh L Br	Medium	Massive	N	
57	66	MS	Gy	Fine	Massive	N	
66	80½	SS	Wh Yl	Fine	Laminated	N	Flint Chips Trees
80½	86	MS	Gy	Fine	Massive	N	
86	93	SS	Wh	Fine	Massive	S	Limey
93	95	MS	Gy	Fine	Massive	S	Limestone
95	100	MS	R	Fine	Red beds		Moenkopi

CG - Conglomerate
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ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

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L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 7
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	55	SS	L Br	Fine	Massive	N	
55	59	MS	Gy	Fine	Massive	N	
59	70	SS	Wh Gy	Fine	Massive	S	
70	73	MS	Gy	Fine	Massive	N	
73	76	SS	Wh	Fine	Laminations	N	
76	84½	MS	Gy	Fine	Massive	N	
84½	90	SS	Br	Fine	Laminated	Trees	Hard
90	100	MS	R		Red beds		Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
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S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME P. W. PETER

October 27, 1952

Mrs. Roma Therrell, Sec.-Treas.
Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

Subject: DMEA-2748
Re: Exploration Assistance
Conglomerate #1 & 2
Lavender #1, 3, & 4

My dear Mrs. Therrell:

The receipt of your application dated October 16, 1952 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2748 and referred to the Rare & Miscellaneous Metals Division.

Kindly refer to DMEA-2748 in any future correspondence relating to your application.

Sincerely yours,

R. E. ADAMS

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

25451

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

October 27, 1952

Memorandum

To: Executive Officer, DMEA Field Team, Region IV.

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned Docket Number to an application recently received from Region IV.

DMEA-2748 - Mal Pais Mining & Engineering Co.

R. E. ADAMS

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

Dmea - 2748

224 New Customhouse
Denver 2, Colorado

October 21, 1952

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Application of Mal Pais Mining & Engineering Co. (Uranium), San Juan County, Utah

Enclosed are three copies of the subject application requesting exploration aid in the amount of $58,350.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

Dmea - 2748

224 New Customhouse
Denver 2, Colorado

October 21, 1952

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Application of Mal Pais Mining & Engineering Co. (Uranium), San Juan County, Utah

Enclosed are three copies of the subject application requesting exploration aid in the amount of $58,350.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

Form MF-103
(Revised June 1951)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. Dmea-2748
Metal or Mineral
Date Received 10-27-52
Amount $
Participation (Government %)

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

Name and address of applicant

Date 10/16/52

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.
   See sketch and report.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.
    None.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Mal Paso Mining & Eng. Co. (Name of company) By Roma Purrell (Signature of authorized official)

10/16/52 (Date) Secretary-Treasurer (Title)

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—64067-2

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

1. (a) The property involved is situate in sections 9 and 17, Township 31 south Range 21 East of the Salt Lake Principal Meridian. The area to be drilled is north and west of a spot of land in section 16 of the above township known as "The Island." Drilling will be conducted along an exposed rim immediately above the shinarump formation. Roads exist which allow access to the area and the rim.

(b) Copy of lease enclosed.

(c) Legal description - Conglomerate #1, Book R-2, page 353. Conglomerate #2, Book R-2, page 353. Lavendar #1, Book R-2, page 354. Lavendar #3, Book R-3, page 287. Lavendar #4, Book T-8, page 168. All recorded in office of County Clerk, San Juan County, Utah. Situate as stated in 1 (a).

10/16/52 W.H.K.
Shaw

To: DMEA

From: Mal Pais Mining & Engineering Co., Grand Jct., Colo.

Org. & 3 copies of MF-103 for above company with attach ments.

ftm

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
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2. (a) Uranium, vanadium, rare earths, copper.

   (b) See engineering report.

Form MF 103

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1245 Mesa Avenue
Grand Junction, Colorado

3. (a) Proposed work involved to drill these claims and block out an ore body can be shown by the following outline:

(1) Continue drilling on a 100' grid system.

(2) Offset mineralized holes at 25' intervals until a body of ore is completely blocked-out.

(3) Extend tunnels having their portals at proper heights along the rim to afford proper haulage, drainage, and extraction of blocked-out ore bodies.

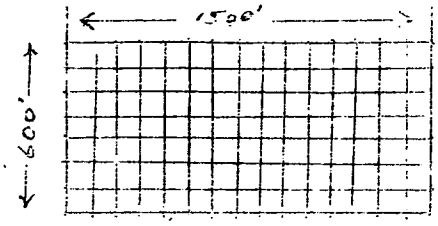
(4) Lay off ore bodies for retreating mining system of proper method for each body of ore. This depending entirely upon the way each ore body lies in respect to the surrounding ground.

Costs of drilling these claims can be estimated at $.50 per foot of hole drilled. Holes will be on an average of 100 feet deep and to cover one claim 600'x1500' 96 holes will be required to drill on a 100' grid system. By mathematics 96 holes times 100 feet deep equals 9600 feet of hole @ $.50 per foot is $4800.00 to completely drill one claim. Multiply this by five claims and drilling costs will approach $24,000.00. This cost can be offset by opening and mining small portions of ore bodies as they are blocked out. The cost of deadhead work to open blocked-out ore bodies can only be roughly estimated as the distance of deadhead drifting cannot be known until such an ore body is blocked out. However, assuming that an ore body exists 100 feet from the surface rim and a 6x5 tunnel is driven to tap this ore body, the estimated cost of driving this tunnel will be about $37.50 per foot, or $3,750.00. Added to this cost will be a surface plant consisting of ore bin to receive ore when reached, track mine car, mucking machine or slusher and compressor with proper housing. Again an estimated cost of $7,700.00. Thus the total cost to block out a small ore body which can be used to offset the total cost of the operation will approach $4,800.00 + $3,750.00 + $7,700.00 or $16,250.00. The entire operation can be estimated at

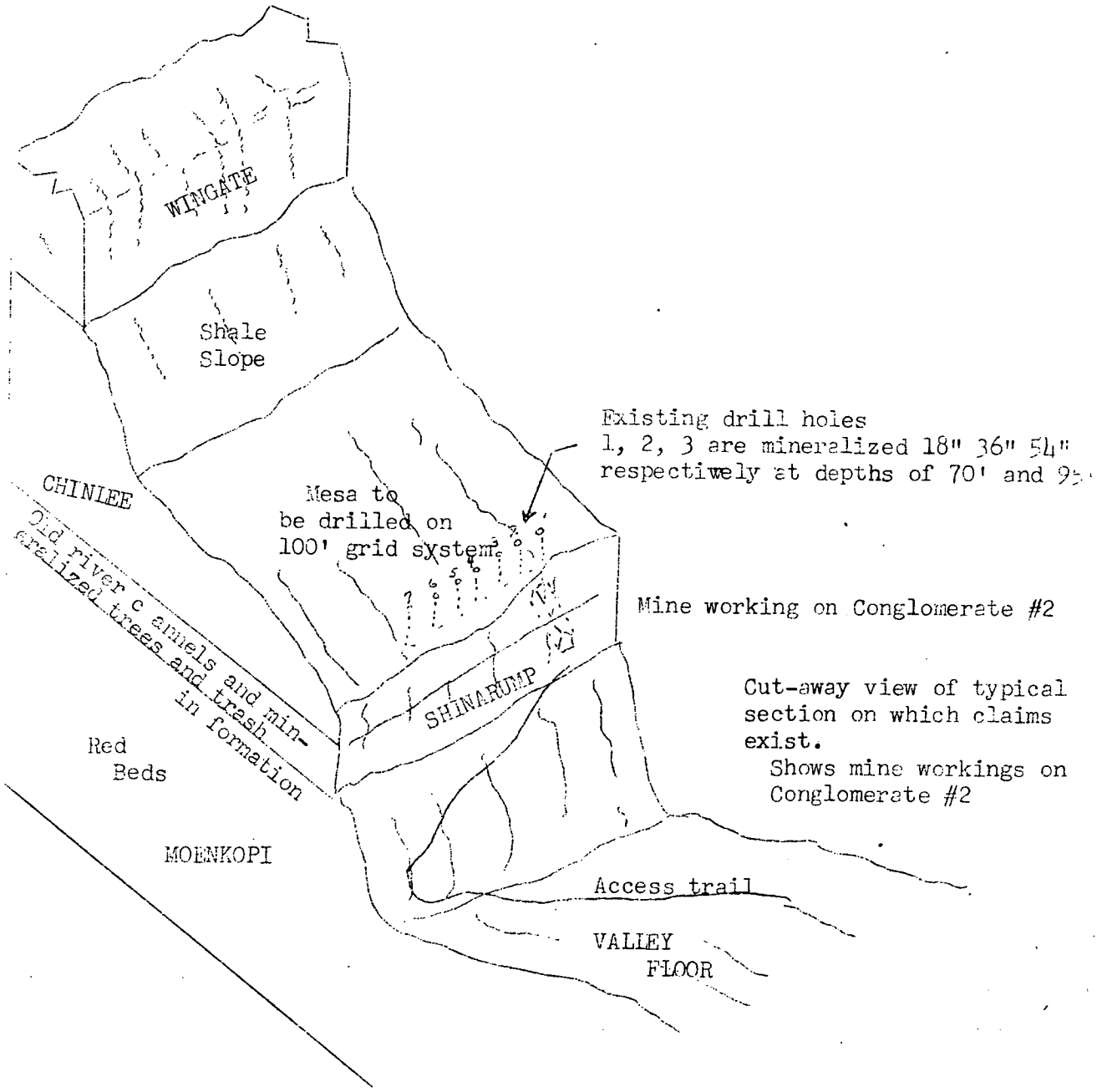
Drilling	$24,000.00	for 100' grid system
	11,250.00	drifting and opening 3 ore bodies
	23,100.00	3 surface plants as described above
	$58,350.00	Total cost of exploration

These are very rough estimates and will be on the low side of probable costs. However, it can be assumed by work already accomplished in the area that mining operations will probably start within three months and returns from this will offset the cost of further exploration. Thus $20,000.00 will be sufficient to block out a small portion of an existing ore body and open it for actual mining.

(b) Commence immediately. Complete in two years.



Typical Grid System
100' Grid at Claim

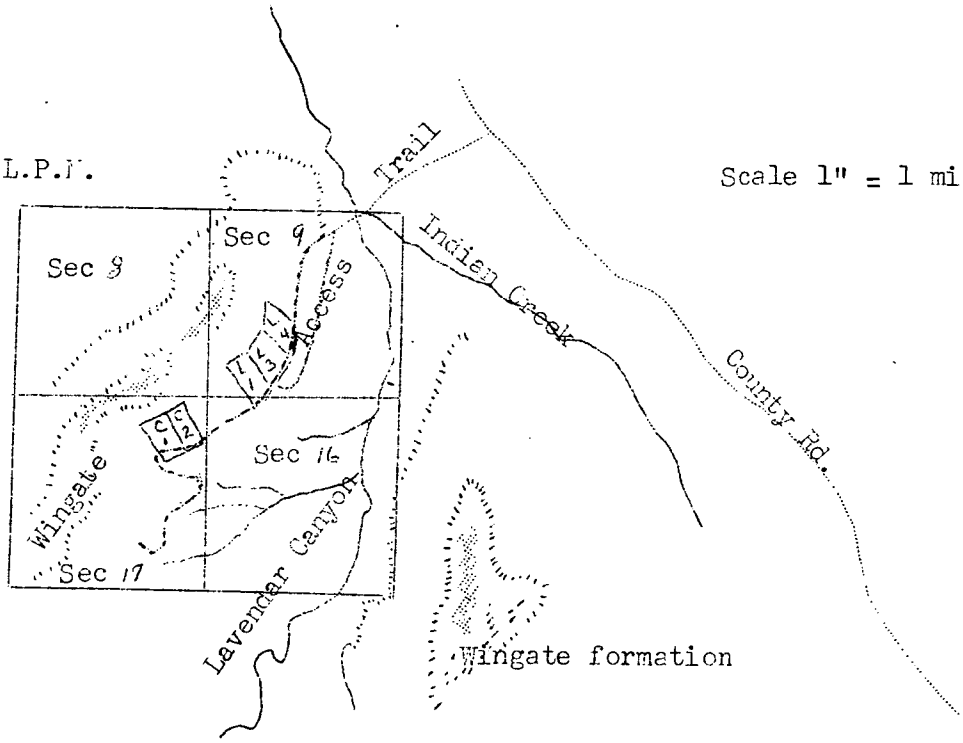


Cut-away view of typical section on which claims exist.
Shows mine workings on Conglomerate #2

Location Map
San Juan County
Utah

T31S R21E S.L.P.M.

Scale 1" = 1 mile



C_1 = Conglomerate #1

C_2 = Conglomerate #2

L_1 = Lavender #1

L_3 = Lavender #3

L_4 = Lavender #4

Note: Claims not to scale and thereby cover more actual area on sketch than would if drawn to scale.

Form MF103

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5. Existing facilities:

1 - 8x10 wall tent
1 - 6x8 pyramid tent
1 - camp stove complete with dishes, etc.
No existing mining facilities
Access trails in need of repair - Cost estimate $500

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6. Additional facilities:

	Cost
2 - buildings	$1,500.00
1 - mine building	750.00

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7. Operating equipment:

(a) No rental

(b) Purchased

	Cost	
1 - 315 cuft Ingersol Rand Compressor	$7,000.00	5 yr life
2 - Thor 45# hammers	700.00	5 yr life
2 - Jack legs	400.00	5 yr life
Hoses and couplings	150.00	1 yr life
Steel and pipe	150.00	1 yr life

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8. 2 - miners @ $12.00/day
   2 - drillers @ $12.00/day
   1 - engineer @ $325.00/month
   1 - manager @ $400.00/month

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9. Cost of materials, etc.

		Cost
Materials		$325.00
Hoses	$100.00	
Couplings	25.00	
Steel	100.00	
Pipe	50.00	
Nails) Miscellaneous)	50.00	
Assays		200.00
Accounting		250.00
General		200.00
		$975.00

Form MF 103

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
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10. (a) $2,000.00

(b) Yes

C O P Y

C O P Y

MINING CLAIM LEASE AGREEMENT

THIS AGREEMENT, Made and entered into in duplicate this 26th day of August, 1952, by and between the Intermountain Uranium Corporation, a Utah Corporation, whose principal place of business is Monticello, San Juan County, Utah, (hereinafter referred to as "Lessors"), and MAL PAIS MINING & ENGINEERING CO., a Colorado corporation, (hereinafter referred to as "Lessee"); WITNESSETH:

That Lessor, for and in consideration of the royalties hereinafter reserved and the covenants and agreements hereinafter expressed and by Lessee to be kept and performed, does hereby lease and demise unto Lessee, the following described mining claims located in unorganized mining district in Township 31 South, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah, all as more fully described in the Location Certificates which were recorded in the office of the Clerk and Recorder of San Juan County, Utah, as follows:

Name of Claim	Book and Page in County Recorder's Book at which recorded	
	Book	Page
Conglomerate #1	R-2	353
Conglomerate #2	R-2	353
Lavendar #1	R-2	354
Lavendar #3	R-3	287
Lavendar #4	T-8	168
Lavendar #5	T-8	170
Lavendar #6	T-8	171
Lavendar #7	T-8	172
Lavendar #8	T-8	173
Lavendar #9	T-8	174
Lavendar #10	T-8	175

Name of Claim	Book and Page in County Recorder's Book at which recorded	
	Book	Page
Aqua #1	R-3	295
Aqua #2	R-3	295
Aqua #3	R-3	295
Aqua #4	R-3	297
Aqua #5	R-3	297
Aqua #6	R-3	297
Aqua #7	R-3	297
Aqua #8	R-3	321
Aqua #9	R-3	321
Aqua #10	R-3	322
Conglomerate #3	R-4	26
Conglomerate #4	R-4	26
Conglomerate #5	R-4	26
Conglomerate #6	R-4	27
Conglomerate #7	R-4	27
Owochomo #1	R-3	7
Owochomo #2	R-3	7
Owochomo #3	R-3	8
Owochomo #4	R-3	8
Owochomo #5	R-3	8
Owochomo #6	R-3	9
Inspiration #1	R-3	9
Inspiration #2	R-3	9
Inspiration #3	R-3	10
Inspiration #4	R-3	10
Inspiration #5	R-3	11
Inspiration #6	R-3	11
Indian Creek #1	R-3	11
Indian Creek #2	R-3	12
Indian Creek #3	R-3	12

TO HAVE AND TO HOLD the same for a term of five years from the date hereof unless sooner abandoned by Lessee pursuant to the terms hereof.

And in consideration thereof, Lessee does hereby covenant with Lessor as follows:

1. To enter upon said mining property and work the same in a manner consistent with good and economical mining practices so as to take out the greatest amount of ore possible with due regard to the development and preservation of the same as mining property and keeping as high as practicable the grade of ore being so mined.

2. To work and mine said premises as aforesaid from the date of this lease, the Lessee, however, reserving the right to quit and abandon said claims and this lease at any time after six months from the date of the execution of this agreement if, in the opinion of the Lessee, said claims are not susceptible of profitable operation.

3. To allow said Lessor and his agent from time to time to enter upon and into all parts of mining operations upon said mining claims for purposes of inspection.

4. Not to assign this lease or any interest thereunder nor sublet the said premises or any part thereof without the written consent of said Lessor nor to allow any person not in privity with the parties hereto to take or hold possession of said premises or any part thereof.

5. To pay said Lessor as royalty fifteen per cent (15%) of the net mill returns of all ores mined from said claims by Lessee, such payment to be made by delivery of such ore with all convenient speed in lots as mined to some mill or regular ore buyer and leaving with such mill or ore buyer the percentage of mill returns aforesaid for delivery to Lessor. For the purpose of this contract, "net mill returns" shall mean such sums as shall be paid for the values in the ore after deducting all charges for carriage in any form, assays and mill charges. Should the uranium oxide content of ore mined and the volume thereof be sufficient to qualify for a bonus from the government, Lessor shall be entitled to receive fifteen per cent (15%) as his share of such bonus. Development allowances and transportation allowances, as set forth by the government for the development and transportation of uranium, are to be retained by the Lessee as Lessee's sole property. When Lessee is awarded transportation allowances on

uranium ore, as set forth by the government, such sums paid for the transportation of uranium ore by the government shall be deducted from the total carriage charges to arrive at an adjusted carriage charge to be used in calculating the net mill returns of uranium ore.

6. To do and perform the necessary assessment work on all claims in connection with this agreement during the life of the lease.

7. To indemnify and hold harmless Lessor from any and all loss or damage and from all claims for injury, death loss or damage of any kind or character and by whomsoever suffered or asserted occasioned by or in connection with any work performed by Lessee, its agents or employees.

8. To promptly pay all bills for labor and materials incurred in Lessee's operations hereunder and to indemnify and save harmless Lessor from all claims and liability of every kind and nature which may or might be incurred by them by reason of operations hereunder.

9. To at all times fully comply with the provisions of the Workmen's Compensation laws of the State of Utah.

IT IS MUTUALLY AGREED That if Lessee is in possession of said premises under this lease on the date five years from date and is conducting mining operations on said premises at that time, then Lessee shall have the option to remain on said premises and conduct operations thereon so long as mining operations, in the opinion of the Lessee, continue to be profitable on any of the claims, provided that Lessee fully and faithfully complies with each and all of the covenants by it to be kept and performed as herein stated.

On any termination hereof, the Lessee shall have the right to remove from said claims at any time within the ninety-day period from and after the date of termination, all equipment placed on the claims by Lessee.

In the event that Lessee shall conduct a core drilling program or wagon drilling program on said claims, a copy of all drill logs, analyses and other pertinent data shall be supplied to Lessor.

Dated at Monticello, Utah, the day and year first above written.

INTERMOUNTAIN URANIUM CORP.

By (/s/ Don B. McAffee)
President
Lessor

MAL PAIS MINING & ENGINEERING CO.

By (/s/ Philip W. Peter)
President
Lessee

State of Utah)
) ss.
County of San Juan)

On this 26th day of August, 1952, personally appeared before me Don B. McAffee, president of the Intermountain Uranium Corporation, and Philip W. Peter, president of the Mal Pais Mining & Engineering Co., each of whom duly acknowledged that he executed the foregoing instrument on behalf of his respective corporation and by authority of the by-laws of his respective corporation, and for and on behalf of his respective corporation.

/s/ F. Bennion Redd
Notary public, residing
at Monticello, Utah.

My commission expires 6-14-55.

REPORT ON FIVE CLAIMS
LAVENDAR CANYON
SAN JUAN COUNTY, UTAH

Location:

The Conglomerate #1, Conglomerate #2, Lavendar #1, Lavendar #3, Lavendar #4 are situated in section 9 and 17 of township 31 south, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah. These claims form a portion of the claims under lease from the Intermountain Uranium Corporation to the Mal Pais Mining and Engineering Company. They lie north and west of Lavendar Canyon approximately 2 miles above the junction of Lavendar Canyon with Indian Creek. The claims thus being on the rim to the left looking downstream in Lavendar Canyon.

Roads:

These claims are reached by access roads already constructed, county roads and the Moab-Monticello Highway. The claims are 50 miles from Monticello, the nearest village, 25 miles of this being on state highway improved, 23 miles on county maintained, unimproved roads, and 3 miles of access trails. All roads are passable during inclement weather and are sufficient to allow trucks as well as passenger cars access to the claims.

Camp:

The drilling camp of the Mal Pais Mining and Engineering Company consists of one 8x10 wall tent and one pyramid tent. Necessary cooking utensils, stove, light plant, water tank, etc., are now in use by the engineer in charge of drilling and his helper.

Equipment:

At present there is a complete wagon drill assembly at the camp consisting of a 210 cu. ft./min. LeRoi compressor mounted on a 6x6 GMC four-wheel drive truck and serving air to an HDR 10 Cleveland wagon drill and H 23 Cleveland sinker. Enough steel is on hand to drill holes up to 150' together with the necessary smaller items customary to drilling rigs of this type. The camp and drilling equipment are serviced by means of a 4x4 Jeep four-wheel drive pick-up truck. A small welding rig and acetylene cutting apparatus is available to handle the expected usual breakages encountered in field operations.

Drilling:

The drilling of the area to date consists of seven holes at depth of 100' passing through the shinarump formation and ending on top of the moenkopi formation. Three of these holes have been tested by means of a Babble counter probe and indicate 18", 36" and 54" of mineralization present at

those depths in the shinarump formation. The other four holes have not as yet been probed but as they are drilled on a 100' grid system it can be assumed that they also will show mineralization, when probed by means of the Babble counter. Drilling is still underway on a 100' grid system in an attempt to block out a mineable ore body in the near future.

Geology:

The area surrounding Lavendar Canyon and Indian Creek consists of several high mesas cut by deep canyons. The formations to be seen consist of (1) the Wingate, forming the high mesas and what could be called peaks of the area; (2) the chinlee formation, found directly below the Wingate, composed of red yellow and blue shales, and forming a steep slope from the high steep Wingate walls to the shinarump sandstones below; (3) the shinarump sandstones and conglomerate are in place immediately below the chinlee formation. This formation forms a rather extensive second mesa or rim ledge on which the five claims considered by this report are located. The shinarump is about 100 feet thick in this area. That is to say, the depth of drilling to pass through this second mesa, of partly chinlee and shinarump formations to reach the moenkopi formation, is roughly 100 feet. Below the shinarump formation lies the moenkopi red beds which slope to the valley floor. This is a description of the section immediately around the claims in question and also is typical of the surrounding area.

The ore bearing formation as regards uranium, vanadium, rare earth and small amounts of copper is the shinarump. In this particular area, covered by these claims, the shinarump is composed of numerous trees which have formed into uranium bearing bodies enclosed within the shinarump conglomerate. These trees can be uncovered along the rim and Geiger counter readings along with assays (information as regards assays obtained from the Intermountain Uranium Corporation and officials at the mill at Monticello) indicate some of the trees have formed into uranium ore yielding as much as 40% U_3O_8. It can be reasonably assumed from the amount of trees and "trash" enclosed within the shinarump conglomerate on these claims that the site is one of an old stream bed of the Triassic period in the geological time table. It is reasonable to assume that there is a strong possibility of an ore body existing within the rim somewhere along this old channel. The drill log of the first three holes drilled on this spot tends to substantiate this as they indicated 18", 36" and 54" respectively of mineralization by Geiger probe. (Estimated safe assumption from actual drill logs.)

Old Workings:

The Intermountain Uranium Corporation opened a tunnel with two cross cuts, the total footage amounting to about 70 feet, 50 feet of main tunnel and 20 feet of cross cuts in an attempt to locate an ore body. Surface indications and indications within the tunnel show the presence of high grade

ore but limited quantities of such. Each face of these workings is apparently void of mineralization but upon close inspection it can be noted that mineralization is found near the bottom of these openings, indicating that the workings have passed over mineralized areas and thus the previous operators became discouraged causing a shut down.

No exact information is available at the present as regards the amount of ore shipped by the Intermountain Uranium Corporation, but from information obtained from casual talks with the officers of that company and the mill at Monticello, it can be assumed that about 20 tons of ore running about .35% U_3O_8 was shipped. It is evident that for the amount of bulldozing done on access trails and the amount of drifting on this tunnel that the mill returns were discouraging enough to cause that corporation to cease mining and lease their property to the Mal Pais Mining and Engineering Company for a drilling program to block out an ore body.

Recommended Operation:

It is suggested that the Mal Pais Mining and Engineering Company continue its drilling program of drilling through the shinarump formation to the top of the moenkopi formation on 100' grid systems until a sizable ore body has been mapped out. At such a time as an ore body has been blocked out, mining operations will commence for the extraction and eventual shipping of this ore. It is the recommendation of the writer that an application for a D.M.A. loan be instigated and obtained to offset the cost of the exploratory drilling of this area and the cost of dead head work towards drifting for a blocked-out ore body.

Time of Exploration:

The approximate time involved to completely drill and block out a small mineable ore body will be in the neighborhood of three months. The time required to drill these claims completely and drive drifts to explore and reach these blocked-out ore bodies will approach a year and a half to two years. It must be kept in mind that while the log of drill holes will give a pretty concise picture of the ground beneath the claims surface, and the expected amount of ore to be found, tunnels or drifts must be driven into these blocked-out areas in order to prove the existence of ore forming a body as previously believed to exist by interpretations of drill logs and maps of possible ore found by the drilling program.

Conclusion:

From the geological picture of the area, the physical conditions of existing facilities such as roads, nearness of shipping points, etc., and from the amount of mineralized trees and other trash found in the shinarump on

these claims, it can be considered as a promising mining property. It can further be assumed by a knowledge of old stream beds found in the shinarump that an ore body exists somewhere behind the rim and in the vicinity of the three drill holes which prove to be mineralized by Babble (Geiger) counter probe. All efforts should be directed towards drilling to find and eventually block out such an ore body so as to commence mining operations as soon as possible to offset the cost of future drilling.

P. W. Peter

P. W. Peter, E.M.

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 1
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for two feet Geiger assay shows .20% U_3O_8

Babble Probe 76'-78' Babble count 100 on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	4	SS	L R	Medium	Massive	N	Cap rock
4	39	SS	WhtoL Br	Medium	Massive	N	
39	48	MS	Gy	Fine	Massive	N	
48	62.5	SS	Wh Yl	Medium	Massive	S	Soft
62.5	65	MS	Gy	Fine	Massive	N	
65	88	SS	Wh Yl	Fine	Massive	S	Interstitial MS
88	90	MS	Gy	Fine	Massive	N	Clay
90	100	MS	R	Fine	Massive	N	Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept. 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 2 | Claim Conglomerate #2 | Date 8 Sept 1952

Depth 100' | Area Lavender Canyon | Logged C.T.P.

Collar Elev. | Co., State San Juan, Utah

Sec. 17 T. 31S R. 21E

Interpretative Info. Hole mineralized for 6'. Geiger assay shows 5 feet of .20% U_3O_8, one foot of .30% U_3O_8.

Babble Probe 90'-96' babble count 100 on 5 scale 95'-96' 55 on 4 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	50	SS	Wh R Yl Br	Medium Fine	Massive	N	Cap rock
50	70	MS	Gy Bl	Fine	Massive	N	Interstitial SS
70	72	SS	Yl Wh	Fine	Massive	N	
72	74	MS	Black	Fine	Tree		Nonmineralized
74	85	SS	Gy Yl	Fine	Massive	S	
85	90	SS	Wh	Fine	Massive	Tree S	Hard
90	100	LS	Gy	Fine	Massive	S	Ore bed
100	-						Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 3
Depth 99'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 11 Sept 1952
Logged G.T.P.

Interpretative Info. Geiger probe shows mineralization of 3' at 93-96
Assay by counter .10% to .20% at 98'

Babble Probe 6" at 98' 100 on 5 scale 93'-96' 40+ on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	25	SS	L R	Fine	Massive	N	
25	38	SS	Wh	Fine	Massive	N	
38	58	MS	Gy	Coarse		N	
58	76	SS	Wh Yl	Fine	Soft	N	Laminations
76	84	MS	Gy	Fine	Massive		
84	91	SS	Wh	Medium	Massive	S	Interstitial Cbn
91	99	LS	Gy	Fine	Massive	S	Mineralized
99	—				Red beds		Moenkopi

CG - Conglomerate
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ST - Siltstone
CS - Claystone
CL - Clay
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Wh - White
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Cbn - Carbonaceous
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DATE 11 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole #4
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 17 Sept 1952
Logged C. T. P.

Interpretative Info. Mineralized between 72'-73'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	L R	Fine	Massive	N	
54	68	MS	Gy	Medium	Laminations		SS Interstitial
68	78	SS	Wh	Fine	Laminations	A	Mineralized 72'-73'
78	87	MS	Gy	Fine	Massive	N	
87	100½	SS	Wh	Fine	Massive	Limey	Probably Count
100½	104½	MS	R				Moenkopi

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ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

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DATE 17 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 5
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info. Mineralization 68'-69'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	Wh L R	Medium	Massive	N	
54	59	MS	Gy	Fine	Massive	N	
59	75	SS	Wh	Fine	Massive	S	68'-69' Mineralized
75	84	MS	Gy	Fine	Massive	N	
84	94	SS	Gy	Fine	Laminated	S	Limey
94	96	MS	Gy	Fine	Massive	N	Limestone
96	104½	MS	R		Red beds		Moenkopi

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CL - Clay
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Gn - Green
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L - Light
D - Dark
P Br - Pale Brown
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Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 6
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R.21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No babble probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	57	SS	Wh L Br	Medium	Massive	N	
57	66	MS	Gy	Fine	Massive	N	
66	80½	SS	Wh Yl	Fine	Laminated	N	Flint Chips Trees
80½	86	MS	Gy	Fine	Massive	N	
86	93	SS	Wh	Fine	Massive	S	Limey
93	95	MS	Gy	Fine	Massive	S	Limestone
95	100	MS	R	Fine	Red beds		Moenkopi

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DATE 18 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 7
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	55	SS	L Br	Fine	Massive	N	
55	59	MS	Gy	Fine	Massive	N	
59	70	SS	Wh Gy	Fine	Massive	S	
70	73	MS	Gy	Fine	Massive	N	
73	76	SS	Wh	Fine	Laminations	N	
76	84½	MS	Gy	Fine	Massive	N	
84½	90	SS	Br	Fine	Laminated	Trees	Hard
90	100	MS	R	[illegible]	Red beds		Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

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Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 18 Sept 1952

NAME P. W. PETER

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

Form 1-100
May 1951

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA

FOR USE UNDER THE

DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dmea-2 748

Date received 10-27-52

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

Name and address of applicant

Date 10/16/52

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
P. W. Peter	Pres. (D)	New Co.	5,000	49	0	0	0
Marilyn J. Peter	V. Pres.	0	0	1	0	0	0
Roma Therrell	Sec.-Treas.(D)	0	0	1	0	0	0
John V. Therrell	Director	0	25,000	49	0	0	0
W. C. Kurtz, Jr.	-	0	100,000	30	0	0	0
G. Saccomanno	-	0	50,000	10	0	0	0
A. R. Johnson	-	0	50,000	10	0	0	0
R. T. Counley	-	0	10,000	5	0	0	0
	Total	New Co.	x x x x x	155		x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$50,000.00	$34,500.00 Unissued	$100.00	345 Unissued	New Co.
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	None				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. New Company.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	See Drill Report				
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Mal Paa Mining & Eng. Co.
(Name of company)

By Thomas Thurrell
(Signature of authorized official)

10/16/52
(Date)

Secretary-Treasurer
(Title)

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—63792-1

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

1. (a) Uranium oxide, vanadium oxide.

   (b) Copper, limited amounts, rare earths.

2. Name of mine claim - Conglomerate #1, Conglomerate #2, Lavendar #1 Lavendar #3, Lavendar #4 Undeveloped drilling operations.

   (a) Conglomerate #2 - No shafts. Others inapplicable.

   (b) Conglomerate #2 - 70' of drifts and crosscuts. Others inapplicable.

   (c) Conglomerate #2 - Covered by (b) above. Others inapplicable.

   (d) Conglomerate #2 - No other openings. Others inapplicable.

   Openings are not flooded. Size of drift 5'x5'. Face productive capacity 9 tons per 5' round.

3. (a) 50 miles northeast of Monticello, Utah.

   (b) Unorganized mining district.

   (c) Township 31S, Range 21E, Salt Lake P.M., Section 9 and Section 17.

   (d) San Juan County, Utah.

4. (a) Property under drilling exploration program by Mal Pais Mining and Engineering Company.

   (b) Operating as lessee.

5. Claims located 1951 by Intermountain Uranium Corporation. Production should commence in January 1953.

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

6. (a) The Mal Pais mining and Engineering Co. is a Colorado corporation engaged in the exploration, development, and mining of minerals. The company is managed by P. W. Peter, a graduate mining engineer from the Colorado School of Mines. Mr. Peter is a registered Professional Engineer in the State of Colorado, Classification - Mining Engineer. He has had experience in geophysical exploration in Quebec, Canada, mining experience in Utah, Colorado, New Mexico, and Virginia. The company's business is managed by Mr. J. V. Therrell. Mr. Therrell has had business experience with the Ordnance Branch, U. S. Army, Remington Arms Company and as Manager of U. S. Veterans Administration hospitals.

7. (a) The property was originally operated by the Intermountain Uranium Corporation. Operation consisted of bulldozing access trails and driving and opening on Conglomerate #2. Two 10-ton shipments were made to the mill at Monticello, Utah, but operations were suspended shortly thereafter due to the lack of experienced personnel. See attached report.

(b) No properties adjoin this region.

(c) Report enclosed.

8. Information recorded on Form MF 100.

9. Information recorded on Form MF 100.

10. None.

11. Information recorded on Form MF 100.

12. (a) See report and maps.

(b) (1) See drill hole chart.

(2) See drill hole chart.

Form MF 100

Mal Pais Mining and Engineering Co.
1245 Mesa Avenue
Grand Junction, Colorado

13. Shipping and supply points 50 miles - 22 miles unimproved. County road, 3 miles trail, 25 miles highway. Residence - camp on claims.

14. Drilling water (creek) available 2 miles from operation. Drinking water (spring) available 5 miles from camp.

15. Personal convenience-gas engine welding and light plant. 110V AC 110V DC 200 Amp arc weld. 1700 watt.

16. Three men employed - mine engineer and drilling superintendent helper on wagon drill - general manager.

17. 1 - 210 Le Roi compressor, new May 1952
1 - H23 Cleveland drill
1 - HDR 10 Cleveland wagon drill
1 - 6x6 GMC truck, 4-wheel drive
1 - 4x4 Jeep pick-up truck, 4-wheel drive
1 - winch, Jeep mounted
1 - Oxweld cutting torch, tanks, and accessories
1 - Miller arc welding machine, gas operated
1 - Camping equipment, tents, cots, stove, dishes, etc.
1 - 200-gal. water tank
4 - 55-gal. gasoline drums
1 - drum pump, diaphram type

18. See report enclosed, maps, and drill logs.

REPORT ON FIVE CLAIMS
LAVENDAR CANYON
SAN JUAN COUNTY, UTAH

Location:

The Conglomerate #1, Conglomerate #2, Lavendar #1, Lavendar #3, Lavendar #4 are situated in section 9 and 17 of township 31 south, Range 21 East of the Salt Lake Principal Meridian, San Juan County, State of Utah. These claims form a portion of the claims under lease from the Intermountain Uranium Corporation to the Mal Pais Mining and Engineering Company. They lie north and west of Lavendar Canyon approximately 2 miles above the junction of Lavendar Canyon with Indian Creek. The claims thus being on the rim to the left looking downstream in Lavendar Canyon.

Roads:

These claims are reached by access roads already constructed, county roads and the Moab-Monticello Highway. The claims are 50 miles from Monticello, the nearest village, 25 miles of this being on state highway improved, 23 miles on county maintained, unimproved roads, and 3 miles of access trails. All roads are passable during inclement weather and are sufficient to allow trucks as well as passenger cars access to the claims.

Camp:

The drilling camp of the Mal Pais Mining and Engineering Company consists of one 8x10 wall tent and one pyramid tent. Necessary cooking utensils, stove, light plant, water tank, etc., are now in use by the engineer in charge of drilling and his helper.

Equipment:

At present there is a complete wagon drill assembly at the camp consisting of a 210 cu. ft./min. LeRoi compressor mounted on a 6x6 GMC four-wheel drive truck and serving air to an MDR 10 Cleveland wagon drill and R 23 Cleveland sinker. Enough steel is on hand to drill holes up to 150' together with the necessary smaller items customary to drilling rigs of this type. The camp and drilling equipment are serviced by means of a 4x4 Jeep four-wheel drive pick-up truck. A small welding rig and acetylene cutting apparatus is available to handle the expected usual breakages encountered in field operations.

Drilling:

The drilling of the area to date consists of seven holes at depth of 100' passing through the shinarump formation and ending on top of the moenkopi formation. Three of these holes have been tested by means of a Babble counter probe and indicate 18", 36" and 54" of mineralization present at

those depths in the shinarump formation. The other four holes have not as yet been probed but as they are drilled on a 100' grid system it can be assumed that they also will show mineralization, when probed by means of the Bebble counter. Drilling is still underway on a 100' grid system in an attempt to block out a mineable ore body in the near future.

Geology:

The area surrounding Lavendar Canyon and Indian Creek consists of several high mesas cut by deep canyons. The formations to be seen consist of (1) the Wingate, forming the high mesas and what could be called peaks of the area; (2) the chinlee formation, found directly below the Wingate, composed of red yellow and blue shales, and forming a steep slope from the high steep Wingate walls to the shinarump sandstones below; (3) the shinarump sandstones and conglomerate are in place immediately below the chinlee formation. This formation forms a rather extensive second mesa or rim ledge on which the five claims considered by this report are located. The shinarump is about 100 feet thick in this area. That is to say, the depth of drilling to pass through this second mesa, of partly chinlee and shinarump formations to reach the moenkopi formation, is roughly 100 feet. Below the shinarump formation lies the moenkopi red beds which slope to the valley floor. This is a description of the section immediately around the claims in question and also is typical of the surrounding area.

The ore bearing formation as regards uranium, vanadium, rare earth and small amounts of copper is the shinarump. In this particular area, covered by these claims, the shinarump is composed of numerous trees which have formed into uranium bearing bodies enclosed within the shinarump conglomerate. These trees can be uncovered along the rim and Geiger counter readings along with assays (information as regards assays obtained from the Intermountain Uranium Corporation and officials at the mill at Monticello) indicate some of the trees have formed into uranium ore yielding as much as 40% U_3O_8. It can be reasonably assumed from the amount of trees and "trash" enclosed within the shinarump conglomerate on these claims that the site is one of an old stream bed of the Triassic period in the geological time table. It is reasonable to assume that there is a strong possibility of an ore body existing within the rim somewhere along this old channel. The drill log of the first three holes drilled on this spot tends to substantiate this as they indicated 18", 36" and 54" respectively of mineralization by Geiger probe. (Estimated safe assumption from actual drill logs.)

Old Workings:

The Intermountain Uranium Corporation opened a tunnel with two cross cuts, the total footage amounting to about 70 feet, 50 feet of main tunnel and 20 feet of cross cuts in an attempt to locate an ore body. Surface indications and indications within the tunnel show the presence of high grade

ore but limited quantities of such. Each face of these workings is apparently void of mineralization but upon close inspection it can be noted that mineralization is found near the bottom of these openings, indicating that the workings have passed over mineralized areas and thus the previous operators became discouraged causing a shut down.

No exact information is available at the present as regards the amount of ore shipped by the Intermountain Uranium Corporation, but from information obtained from casual talks with the officers of that company and the mill at Monticello, it can be assumed that about 20 tons of ore running about .35% U_3O_8 was shipped. It is evident that for the amount of bulldozing done on access trails and the amount of drifting on this tunnel that the mill returns were discouraging enough to cause that corporation to cease mining and lease their property to the Mal Pais Mining and Engineering Company for a drilling program to block out an ore body.

Recommended Operation:

It is suggested that the Mal Pais Mining and Engineering Company continue its drilling program of drilling through the shinarump formation to the top of the moenkopi formation on 100' grid systems until a sizable ore body has been mapped out. At such a time as an ore body has been blocked out, mining operations will commence for the extraction and eventual shipping of this ore. It is the recommendation of the writer that an application for a D.M.A. loan be instigated and obtained to offset the cost of the exploratory drilling of this area and the cost of dead head work towards drifting for a blocked-out ore body.

Time of Exploration:

The approximate time involved to completely drill and block out a small mineable ore body will be in the neighborhood of three months. The time required to drill these claims completely and drive drifts to explore and reach these blocked-out ore bodies will approach a year and a half to two years. It must be kept in mind that while the log of drill holes will give a pretty concise picture of the ground beneath the claims surface, and the expected amount of ore to be found, tunnels or drifts must be driven into these blocked-out areas in order to prove the existence of ore forming a body as previously believed to exist by interpretations of drill logs and maps of possible ore found by the drilling program.

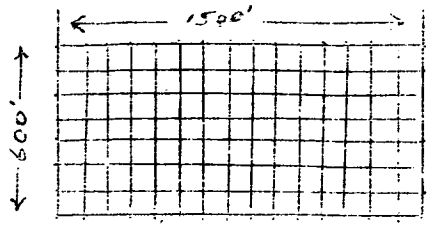
Conclusion:

From the geological picture of the area, the physical conditions of existing facilities such as roads, nearness of shipping points, etc., and from the amount of mineralized trash and other trash found in the shinarump on

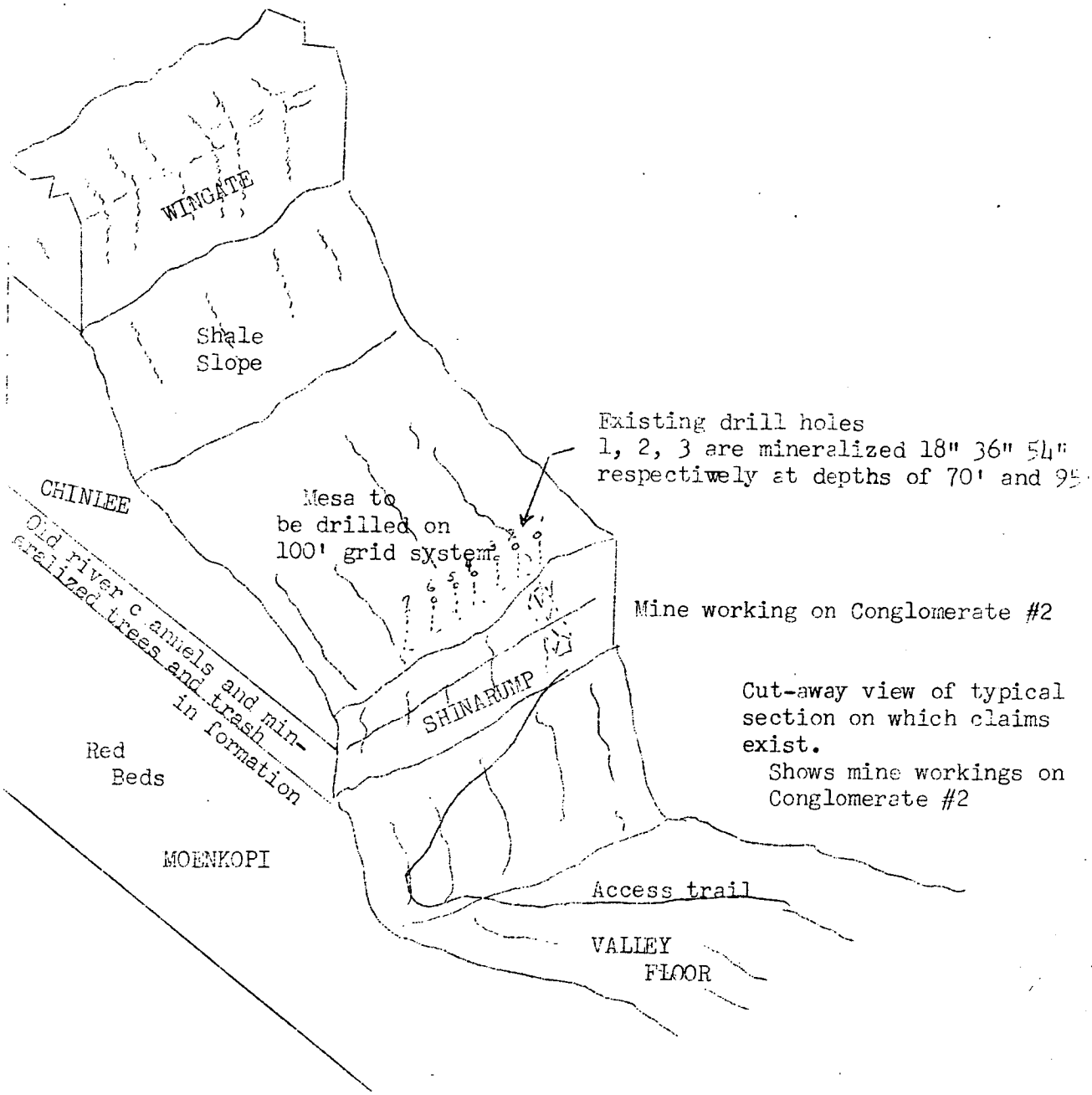
these claims, it can be considered as a promising mining property. It can further be assumed by a knowledge of old stream beds found in the shinarump that an ore body exists somewhere behind the rim and in the vicinity of the three drill holes which prove to be mineralized by Babble (Geiger) counter probe. All efforts should be directed towards drilling to find and eventually block out such an ore body so as to commence mining operations as soon as possible to offset the cost of future drilling.

R. W. Peter

R. W. Peter, M.M.



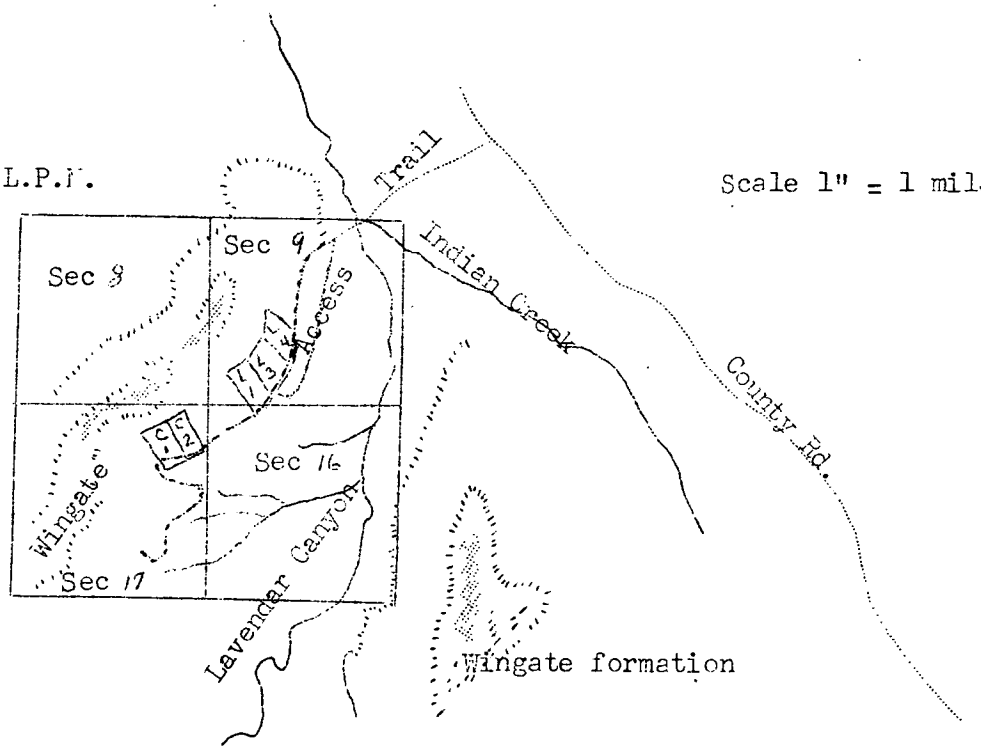
Typical Grid System
100' Grid at Claim.



Location Map
San Juan County
Utah

T31S R21E S.L.P.M.

Scale 1" = 1 mile



C 1 = Conglomerate #1

C 2 = Conglomerate #2

L 1 = Lavender #1

L 3 = Lavender #3

L 4 = Lavender #4

Note: Claims not to scale and thereby cover more actual area on sketch than would if drawn to scale.

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 1
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for two feet Geiger assay shows .20% U_3O_8.

Babble Probe 76'-78' Babble count 100 on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	4	SS	L R	Medium	Massive	N	Cap rock
4	39	SS	Wh to LBr	Medium	Massive	N	
39	48	MS	Gy	Fine	Massive	N	
48	62.5	SS	Wh Yl	Medium	Massive	S	Soft
62.5	65	MS	Gy	Fine	Massive	N	
65	88	SS	Wh Yl	Fine	Massive	S	Interstitial MS
88	90	MS	Gy	Fine	Massive	N	Clay
90	100	MS	R	Fine	Massive	N	Moenkopi

CG - Conglomerate
SS - Sandstone
MS - Mudstone
ST - Siltstone
CS - Claystone
CL - Clay
SH - Shale
LS - Limestone

Wh - White
Br - Brown
R - Red
Gy - Gray
Gn - Green
Bl - Blue
Yw - Yellow

P - Pale
L - Light
D - Dark
P Br - Pale Brown
L Br - Light Brown
Yw Gy - Yellow Gray

N - None
S - Sparse
A - Abundant
Cbn - Carbonaceous
M - Massive
S - Laminations Few
A - Laminations Abundant

DATE 8 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 2
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31SR. 21E

Date 8 Sept 1952
Logged C.T.P.

Interpretative Info. Hole mineralized for 6'. Geiger assay shows 5 feet of .20% U_3O_8, one foot of .30% U_3O_8.

Babble Probe 90'-96' babble count 100 on 5 scale 95'-96' 55 on 4 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	50	SS	Wh R Yl Br	Medium Fine	Massive	N	Cap rock
50	70	MS	Gy Bl	Fine	Massive	N	Interstitial SS
70	72	SS	Yl Wh	Fine	Massive	N	
72	74	MS	Black	Fine	Tree		Nonmineralized
74	85	SS	Gy Yl	Fine	Massive	S	
85	90	SS	Wh	Fine	Massive	Tree S	Hard
90	100	LS	Gy	Fine	Massive	S	Ore bed
100	-						Moenkopi

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DATE 8 Sept 1952

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MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 3 | Claim Conglomerate #2 | Date 11 Sept. 1952
Depth 99' | Area Lavender Canyon | Logged C.T.P.
Collar Elev. | Co., State San Juan, Utah
Sec. 17 T. 31S R. 21E

Interpretative Info. Geiger probe shows mineralization of 3' at 93-96
Assay by counter .10% to .20% at 98'
Babble Probe 6" at 98' 100 on 5 scale 93'-96' 40+ on 5 scale

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	25	SS	L R	Fine	Massive	N	
25	38	SS	Wh	Fine	Massive	N	
38	58	MS	Gy	Coarse		N	
58	76	SS	Wh YL	Fine	Soft	N	Laminations
76	84	MS	Gy	Fine	Massive		
84	91	SS	Wh	Medium	Massive	S	Interstitial Cbn
91	99	LS	Gy	Fine	Massive	S	Mineralized
99	—				Red beds		Moenkopi

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DATE 11 Sept 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 4
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co., State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 17 Sept. 1952
Logged C.T.P.

Interpretative Info. Mineralized between 72'-73'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	L R	Fine	Massive	N	
54	68	MS	Gy	Medium	Laminations		SS Interstitial
68	78	SS	Wh	Fine	Laminations	A	Mineralized 72'-73'
78	87	MS	Gy	Fine	Massive	N	
87	100½	SS	Wh	Fine	Massive	Limey	Probably Count
100½	104½	MS	R				Moenkopi

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DATE 17 Sept. 1952

NAME P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 5
Depth 104½'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T.31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info. Mineralization 68'-69'

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	54	SS	Wh L R	Medium	Massive	N	
54	59	MS	Gy	Fine	Massive	N	
59	75	SS	Wh	Fine	Massive	S	68'-69' Mineralized
75	84	MS	Gy	Fine	Massive	N	
84	94	SS	Gy	Fine	Laminated	S	Limey
94	96	MS	Gy	Fine	Massive	N	Limestone
96	104½	MS	R		Red beds		Moenkopi

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DATE 18 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 6
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No babble probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	57	SS	Wh L Br	Medium	Massive	N	
57	66	MS	Gy	Fine	Massive	N	
66	80½	SS	Wh Yl	Fine	Laminated	N	Flint Chips Trees
80½	86	MS	Gy	Fine	Massive	N	
86	93	SS	Wh	Fine	Massive	S	Limey
93	95	MS	Gy	Fine	Massive	S	Limestone
95	100	MS	R	Fine	Red beds		Moenkopi

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DATE 18 Sept 1952

NAME
P. W. PETER

MAL PAIS MINING & ENGINEERING CO.
Grand Junction, Colorado

Hole # 7
Depth 100'
Collar Elev.

Claim Conglomerate #2
Area Lavender Canyon
Co.,State San Juan, Utah
Sec. 17 T. 31S R. 21E

Date 18 Sept 1952
Logged C.T.P.

Interpretative Info.

Babble Probe No probe taken

Footage From	Footage To	Rock	Color	Grain	Bedding	Carbonaceous	Remarks
0	55	SS	L Br	Fine	Massive	N	
55	59	MS	Gy	Fine	Massive	N	
59	70	SS	Wh Gy	Fine	Massive	S	
70	73	MS	Gy	Fine	Massive	N	
73	76	SS	Wh	Fine	Laminations	N	
76	84½	MS	Gy	Fine	Massive	N	
84½	90	SS	Br	Fine	Laminated	Trees	Hard
90	100	MS	R		Red beds		Moenkopi

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DATE 18 Sept 1952

NAME P. W. PETER