DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Idm-E NO._____

DMEA NO. 4767

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [ ] Project summary (final)
- [ ] Work Completed analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports

- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No._____: Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957

DATE	INITIALS	CODE
June 18, 1957		

M. P. C. Mining Company

Malo, Washington

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

Gentlemen:

Enclosed please find your form MF-103. We have completed these forms as nearly complete as we know how.

This is a newly opened up mineralized area in this state of Washington. We feel that there are a great many possibilities within these properties and have invested a goodly sum of money handling it thus far.

If we can qualify we feel that we would appreciate any assistance that you might be able to give us.

Your immediate attention would be greatly appreciated. Thank you.

Very truly yours,

J. D. Morse
partner
M. P. C. Mining Company
Malo, Washington

JDM-mm

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. 4767
Metal or Mineral URANIUM
Date Received 6-21-57
Estimated Cost $67,200
Participation (Government %)

RECEIVED JUN 21 1957 D.M.E.A.

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: M. P. C. Mining Company, Partnership
Malo, Washington

Partners names and addresses on page 1 - attached

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See page 1 - attached.
Located on Mt. Leona, Sections #14, #22, #23 and #26, Ferry County, Curlew Mining District, State of Washington.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise
Owner of 24 claims and lessee of 22 claims adjacent to our own

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it none

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

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

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

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

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

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

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium primarily but is in mineralized belt, discovery possible of anything.

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

(*c*) The work will start within Immediately days and be completed within 2 years months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☒ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated June 20, 1957

M. P. C. Mining Company
(Applicant)

By J D Moore

Warren J Price

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

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

Application: DMEA

1. M. P. C. Mining Company
Malo, Washington

(d) Partners:

Joseph D. Morse, Rt. 3 Box 3-C, Lebanon, Oregon (winter address)
Warren J. Price, 416 G. Street, Springfield, Oregon (winter address)
Duane E. Crowe, Mohawk, Oregon
Forrest W. Morse, Rt. 3, Box 4-a, Lebanon, Oregon
William F. Morse, Harrisburg, Oregon

3.

(a) Claims owned: (Unpatented claims, Location Notice recorded Book No. & File No.)

1.	1.	Dandy	13	117649
	2.	Jim Dandy	13	117644
	3.	Rusty Bucket	13	117648
	4.	Eagle	13	117643
	5.	Eureka	13	117681
	6.	Lucky Boy #11	13	117647
	7.	Lucky Boy #12	13	117645
	8.	Tamarack #1	13	117646
	9.	Tamarack #2	13	117682
	10.	T. & L.	13	117784
	11.	Gapper	13	118001
	12.	Bridgett	13	118029
	13.	Judy-Anne	13	118129
	14.	Julie-Jean	13	118130
	15.	Joni-Frank	13	118128
	16.	David V.	13	118329
	17.	M.G.M.	13	118328
	18.	Jay Dee M.	13	118506
	19.	Yellow Jacket ✓	14	121940
	20.	Crazy Creek	14	122824
	21.	Meteor #1	14	124831
	22.	Meteor #2	14	124832
	23.	Meteor #3	14	124833
	24	Queen Anne	13	117402

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957

DATE	INITIALS	CODE

Claims Leased:

	1.	Lone Wolf	13	117472
	2.	Pay Dirt #1	13	117474
	3.	Paydirt #2	13	117475
	4.	Paydirt #3	13	117473
	5.	Hangover ✓	13	117459 ✓
	6.	Sleepless Night ✓	13	117463
	7.	Lucky Pete ✓	13	117461
	8.	Tip Top ✓	13	117621
	9.	Second Chance ✓	12	117029
	10.	Triple XXX ✓	12	117051
	11.	Three RRR ✓	10	118357
	12.	Give Up ✓	13	117462
	13.	Windfall ✓	13	117902
	14.	Left Over ✓	13	118830
	15.	Bushed ✓	13	117680
	16.	Linx ✓	13	118832

✓. 1. OC.

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957
DATE | INITIALS | CODE

M. P. C. Mining Company
Malo, Washington

17.	Daffy	13	118831
18.	H. & R. #1	13	117434

(claims leased, cont.)

		Book No.	File No.
19.	H. & R. #2	13	117435
20.	Birthday	13	11726
21.	Leona Special	13	117458
22.	The Lucky Evelyn	13	117635

4. Work on all of these claims started on a small scale (with the exception of Meteor #1, #2, and #3) in the summer of 1955, continuing into the Fall. Because of extreme weather conditions, work was discontinued until the Spring of 1956. Please find attached a statement of the expense and investment of this work up to May 15, 1957.

This work has been done with a minimum of roadbuilding necessary to get equipment to the properties. J. D. Morse and W. J. Price resumed this work in May, 1957. They are living in a log house three miles east of Malo, Washington. This is up the north fork of St. Peters Creek. From the residence it is approximately six miles by jeep or four-wheel drive pickup up Mr. Leona to the properties here-to-for mentioned. There are no existing mine workings, no ore being shipped. There are many extremely high radiation areas which we are exploring and trying to establish actual deposits etc.

In doing this exploration we have saved several hundred ton of uranium ore.

For examination purposes it would be best for one to be at the residence about 7:00 a.m., at which time the men leave to go to work. If you have your own four-wheel drive vehicle directions may be obtained at the residence.

(c) Geologic Features: Enclosed is a copy of the reconnaisance made by a Geologist, Mr. Donald L. Masson from Pullman, Washington. This covers information you need. It is not necessary to return these copies to us, as they are duplicates.

(d) Approximately four miles of road would need to be constructed if shipping of ore is possible. This would connect up with another forest-service access road, now existing. From properties to the closest railroad point for shipment it is approximately eight miles, or if hauled by truck to Ford, Washington where the new Uranium mill is being constructed by theNewmont Company, there would be a distance of approximately one-hundred miles.

(e) Manpower in this area is adequate. Materials, supplies and equipment are available at Spokane (130 miles). Public Utilities Power is available here and there is adequate water on the mountain.

5. So Far we have just worked a few of the surface outcropings and we would like to go to depth where we believe large ore bodies exist. We have been able to establish much low grade ore and several locations of high-grade ore.

(d) The applicant has had fifteen years of experience with the mining of non-metalic rock, crushing plants, and production of sands and gravel. We would like to continue this work under the supervision of a licensed geologist.

M. P. C. Mining Company
Malo, Washington

6. Costs of proposed work:

(a) Independent Contracts - 2 yr. period

500' drift @ $14.00 -	$7,000.00	
500 hours dozer work @ $12.00 -	6,000.00	

(b) Work to be done by operator - 2 yr. period

2,000 ft. short-hole drilling @ $1.50 per ft.	3,000.00	
1,000 hrs. H. D. 5 loader, 1 yd capacity @ $10.00 per hr.	10,000.00	
dynamite	2,000.00	
Geologist	2,500.00	
Estimated Labor	30,000.00	
1 Jeep, estimated use	1,200.00	
1 four-wheel drive International unit	2,500.00	
House rent and office space	1,000.00	
Contingencies	2,000.00	
Total		$67,200.00

7.

(a) We are prepared to furnish our share of the cost of the proposed project in accordance with the regulations as follows:

(b) We will furnish the following equipment for use:

1 - H. D. 5 Allis Chalmers loader	11,000.00	
1 - LeRoi Tract-air Wagon drill	6,500.00	
1 - FourWheel drive unit	3,250.00	
1 - Pioneer diamond drill, portable	1,200.00	
Total		$21,950.00

OFFICIAL FILE COPY
D M E A
RECEIVED JUN 21 1957

DATE	INITIALS	CODE

M. P. C. Mining Company

May 15, 1957

Expense and Investment Statement

Joseph D. Morse	Capital Invested	$13,500.11
Warren J. Price	do	3,668.32
Duane E. Crowe	do	2,180.17
Forrest W. Morse	do	13,439.45
Wm. F. Morse	do	13,439.45

Expenses

Bulldozing	$5,073.40	
Claim Fees	62.81	
Dynamite8	821.65	
Assays	463.18	
Drilling (deep-hole, contract)	2,600.45	
Grubstake	225.00	
Geiger Counters	781.07	
Miscellaneous	637.51	
Geologist-Engineer	357.60	
Traveling - gas - oil	3,334.26	
Equipment	7,632.62	
1 - H. D. 5 Allis Chalmers	11,000.00	
1 - 4 wheel drive International unit	3,250.00	
Rent	420.00	
Office Supplies	43.01	
Wages	224.94	
Partners Labor	9,300.00	
	$46,227.50	$46,227.50

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957

DATE	INITIALS	CODE

Copies of leases on 22 claims

As required in 3 - d -

LEASE AND AGREEMENT

This Lease and Agreement made and entered into t is 15th day of October A. D. 1956, by and between Elton Vanderburg and Dorothy Vanderburg, husband and wife, George Moore and Margie Moore, husband and wife, George Wold and Mildred Wold, husband and wife, and Rayford Row and Eloise Row, husband and wife, as Lessors and W. F. Morse, F. W. Morse, J. D. Morse, Duane Crowe, and Warren J. Price, a partnership dba under the assumed firm name and style of M.P.C. Mining Company, as Lessee, WITNESSETH:

That for an in consideration of the mutual covenants hereinafter contained, it is agreed between the parties as follows::

PROPERTY: Lessor leases to Lessee the following Claims:

LEFT OVER, BUSHED, LYNX AND DAFFY all in Ferry County, Washington

PERIOD: Lease to run for a period of two (2) years. Option for an additional four (4) years if exploration of claim establises ore body of sufficient size and quality, provided that the Lessee complies with all of the terms and conditions of the existing lease.

ROYALTY: Lessee agrees to pay the Lessors, a royalty on all valuable mineral ore including Uranium ore taken from said properties, 10% on the gross value on all ore of a value up to $30.00 per ton, and 12% on all ore of a gross value of $30.00 to $50.00 per ton, and 15% on the gross valueof all ore over $50.00 per ton, all prices f.o.b. the mine.

Lessee shall cause any royalties to be paid direct to Lessors, and also to cause a copy of theUnited States certificate of purchase or smelter return or other purchaser's return to be sent direct to Lessors at time of payments.

LAWS AND REGULATIONS: Lessee agrees to comply with all applicable mining laws and regulations of the United States and of the State of Washington: also agrees to pay when due all taxes relating to the mining property and equipment, also all Federal and State Laws such as Social Security, Workmens' Compensation, Industrial Insurance and the like; also agrees to save Lessors harmless from all expenses amd liability incurred by Lessee in holding or operating the mining properties: also agrees not to incur any labor or material liens against the mining properties of

L

Lessors, and to notify Lessors at once of any such liens by writing.

ASSESSMENT WORK: Lessee agrees to perform and to record (as required by law) all required annual assessment work for the term of t is lease and to furnish Lessors with a copy of an affidavit of such work before June 30th, each year without expense of Lessors.

That the Lessee shall explore and prospect said mining claims and shall diligently pursue said exploring and prospecting, using accepted methods of the locality, during said period, weather permitting, unless they abandon said property and terminate this agreement as herein provided, or should elect to actively mine said properties as here-in-after provided.

That upon the expiration of the prospecting period herein provided for, or sooner, upon election of the Lessee, they shall actively mine said properties and continuously and diligently mine said properties in a good miner-like manner during the entire term of this lease or any extension or renewal of the same, subject to the terms and conditions herein contained, it being understood that if weather, strikes, or other circumstances beyond the control of the Lessee make said mining impossible or uneconomical, they shall be excused from performance of this provision so long as said circumstances exist.

That the Lessors or their agents may inspect the books and records of the Lessee at all reasonable times and places and the Lessee shall allowthe Lessors or their agents access to the premises for purposes of inspection atall reasonable times and places.

That any discovery bonuses and production bonuses received from the United States or otherwise shall be divided equally; 50% to the Lessee and 50% to the Lessors.

SURRENDER OF LEASE: Lessee shall have the privilege at any time to surrender this lease after first serving orsending to the Lessors, by registered mail, written notice thereof, provided Lessee has complied with the terms and conditions of this lease.

FORFEITURE NOTICE: If Lessee fails to pay or cause to be paid any royalty when due or violates any other covenant herein, Lessors shall have the optional right to serve on it or to mail to it at Malo, Washingtin, a sixty day (60) written

notice thereof; and if before expiration of such notice, Lessee fails to pay such royalty due or to rectify such breach of covenant, then at theexpiration of said notice, this lease shall terminate, and Lessee shall forthwith vacate the premises, and the Lessors shall retain as liquidated damages, all royalty and other money payments there-to-fore paid to Lessors.

ASSIGNING LEASE: Lessee shall have the right to assign or sublease its rights under this lease and agreement to others, provided they have the written consent of Lessors, and any assignment without such written consent shall automatically ter minate this lease.

SIGNED and dated this 15th day of October A. D. 1956.

Lessee: M. P. C. Mining Company

W. F. Morse

Forrest W. Morse

Duane E. Crowe

Warren J. Price

J. D. Morse

Lessors:

Elton Vanderburg

Dorothy Vanderburg

George O. Wold

Mildred E. Wold

Rayford E. Row

Eloise Row

George J. Moore

Margie L. Moore

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957

DATE	[illegible]	CODE

t

THIS CONTRACT Made and entered into this 31st day of August, 1955, by and between W. F. Morse, F. W. Morse, J. D. Morse, Duane Crowe, and Warren J. Price, doing business under the assumed firm name and style of MPC Mining Company, with principal place of business atMalo, in Ferry County, Washington, hereinafter called the First Parties, and Elton Vanderburg and Dorothy Vanderburg, husband and wife, George Moore and Marjorie Moore, husband and wife, Arch Row and Lora Mae Row, husband and wife, George Wold and Mildred Wold, husband and wife, Rayford Row and Eloise Row, husband and wife, E.R. Setzer and Lois Setzer, husband and wife, and Rodger Wold, all of Linn County, Oregon, hereinafter called the Second Parties,

W I T N E S S E T H:

WHEREAS, ELTON VANDERBURG and DOROTHY VANDERBURG, husband and wife, GEORGE MOORE and MARJORIE MOORE, husband and wife, ARCH ROW and LORA MAE ROW' husband and wife, GEORGE WOLD and MILDRED WOLD, husband and wife, and RAYFORD ROW AND ELOISE ROW' husband and wife, of the Second Parties are the locators of the following mining claims, to-wit:

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957
DATE | INITIALS | CODE

Lucky Pete, WindFall, Hangover, Sleepless Night, in Section #23;

Tip Top, in Section #26;

Second Chance, in Section #22;

Triple XXX and Three RRR, in Section #15;

and Give Up, in Section #14

All of which claims are of the dimensions of 600 feet x 1500 feet and all in Township 38 North Range 34 East of the Willamette Meridian in the Curlew Mining District, Ferry County Washington, Mt. Leona location.

And said E. R. Setzer and Lois Setzer, husband and wife, and Rodger Wold have an agreement with theothers of the Second Parties that they shall share in the royalties f from the following of said claims, to-wit:

Hangover, in Section #23;
Lucky Pete, and Sleepless Night, in Section #23;
Tip Top, in Section #26;
Second Chance, in Section #22;
Triple XXX, in Section #15; Thre RR in Section #15;
Give Up, in Section #14;
And all in Township 38 North Range 34 East of the Willamette Meridian in the Curlew Mining District, Ferry County Washington, Mt. Leona location, and

WHEREAS, the First Parties are the owners and locators of mining c aims in the same vicinity as the claims above mentioned and are owners and operators of machinery and other facilities for the prospecting and developing of mining claims, and nowhave machinery at work and are developing claims in the vicinity of the claims above mentioned, and theSecond Parties are not presently in a position to work their respective claims and desire the First Parties to work their claims for them in conjunction with the claims of the First Parties.

NOW, THEREFORE, in consideration of covenants and agreements of each of the parties to the other, and the considerations hereinafter provided, it is agreed as follows:

I.

That the First Parties shall have the right for a period of three (3) years from the date hereof to prospect, do assessment work, development and mining on any and all of the claims of the Second Parties above mentioned, and in so doing shall have the right to build roads, tunnels, excavations, do stripping and all other work necessary to prospecting, developing and mining said claims through, across, under, over, and upon any and all said claims, and to have full possession and access thereto during the term hereof: and in addition thereto, to cross over said claims in such operations in connection with their own and any other claims in the vicinity: and shall have the right to erect any structures, place any machinery and other equipment upon any and all of said claims in so doing; provided, however, that the First Parties shall be responsible for the cost of all said work, and shall not permit any liens to be filed on said claims on account thereof; it being understood and agreed that such work shall be started, as to one or more of said claims, within ninety (90) days from the date hereof.

II.

That the Second Parties shall defend First Parties as to any adverse claims or damages claimed by any other parties on account of the performance of this contract by the First Parties, and agree that they shall claim credit forany and all of said development and other wwork necessary for proving upon said claims, and shall do all things necessary to patent said claims at the earliest practical date.

~~III.~~

III.

That First Parties agree that in the event any minerals of sufficient richness to be profitably mined shall be discovered on any of said claims, they shall proceed to develop and operate with reasonable regularity all of said claims that it shall apnear to them may be profitably operated, and shall provide proper and adequate machinery and equipment therefor, but any such machinery and equipment placed or used on said claims shall be and remain the property of the First Parties and shall be subject to removal at any time.

IV.

That if mining shall be undertaken by the First Parties, which shall become profitable, the First Parties shall pay the Second Parties a share of said profits in the following amount and manner:

1. Fifty percent (50%) of the net profits derived from the sale of minerals and/or to be taken from said mines on said claims, net profits to be determined on the same basis as determined for Federal Income Tax returns, but shall enure wholly to the benefit of the Second Parties.

2. Advances of Second Parties' share of the profits shall be made monthly upon the basis of estimates produced by the First Parties, and settlement shall be made upon the basis of the calendar year, on or before March 1st of the year following that for which said share of the profits are paid.

3. Disbursement of the Second Parties' share of theprofits shall be made to such agent designated by Second Parties.

4. The books of the First Parties shall be open to Second Parties and their agents at any and all reasonable times.

V.

That if the First Parties shall desire to delegate the development, assessment, mining and other work herein referred to, to other parties, they shall have the right to do so.

VI.

The First Parties shall have the option of renewing this agreement for a period of five (5) years from the expiration hereof upon serving written notice upon Elton Vanderburg, of the Second Parties, of their intention to do so, not later than thirty(30) days prior to the expiration hereof.

~~VII.~~

VII.

That this agreement shall be binding upon and extend to the heirs, executors, administrators and assigns of all the parties hereto, and no modification hereof shall be binding unless reduced to writing and endorsed by all the parties hereto.

VIII.

In the event First Parties shall find from their prospecting that it appears that any of said claims do not contain mineral content sufficient to justify further exploration or development, they shall notify Elton Vanderburg thereof in writing by May 1st of any year in which assessment work has not been done that they desire said claim or claims be released from the terms hereof, and they shall thereafter be released from the terms hereof and the Second Parties given an opportunity to do the assessment thereon before the close of the fiscal year within which said work is required by the Federal Government to be done: and in the event the First Parties shall find any claims sufficiently rich in minerals that can be operated profitably and shall not be mined for a period of one (1) year after such discovery, the First Parties shall release the same from the terms hereof to give the Second Parties an opportunity to do such mining.

IX.

Any dispute which shall arise hereunder shall be arbitrated in the usual manner before any legal actions shall be instituted thereon, each of the parties appointingone arbitrator, who shall appoint a third, and the final decision by such arbitration shall be arrived at within thirty(30) days of written notice served upon either party by the other that there is a dispute between the parties which require arbitration.

IN WITNESS WHEREOF, the Parties hereto have executed this agreement in duplicate this day and date first above mentioned.

First Parties:
J. D. Morse and Marjorie Morse
Duane E. Crowe and Grace Crowe
F. W. Morse and Laura Morse
Wm. F. Morse and Lois P. Morse
W. J. Price and Lottie R. Price

Second Parties:
E. R. Sitzer and Lois Detzer
George O. Wold and Mildred Wold
Roger C. Wold
Elton Vanderburg and Dorothy Vanderburg
Arch Row and Lora Mae Row
George J. Moore and Margie L. Moore
Rayford E. Row and Eloise Row

THIS CONTRACT Made and entered into this 31st day of August, 1955, by and between W. F. Morse, F. W. Morse, J. D. Morse, Duane Crowe, and Warren J. Price, doing business under the assumed firm name and style of M P C Mining Co. with principal place of business at Malo, in Ferry County, Washington, hereinafter called the First Parties, and Herb Dennis and Betty Dennis, husband and wife, and Ralph Denham and Ruby Denham, husband and wife, all of Linn County, Oregon, hereinafter called the Second Parties,

W I T N E S S E T H:

WHEREAS, Herb Dennis and Betty Dennis, husband and wife, and Ralph Denham and Ruby Denham, husband and wife, Second Parties, are the locators, of the following mining claims, to-wit:

> H.&R. #1, H.&R. #2, and Birthday, in Section 23; All of which claims are of the dimensions of 600 feet x 1500 feet and all in Township 38 North, Range 34 East of the Willamette Meridian in the Curlew Mining District, Ferry County, Washington, Mr. Leona location,

and

~~WHEREAS~~, the First Parties are theowners and locators of mining CLAIMS IN THE SAME VICINITY as the claims above mentioned and are owners and operators of machinery and other facilities for the prospecting and developing of mining claims, and nowhave machinery at work and are developing claims in the vicinity of the claims above mentioned, and the Second Parties are not presently in a position to work their respective claims and desire the First Parties to work their claims for them in conjunction with the claims of the First Parties.

NOW, THEREOFRE, in consideration of covenants and

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957

DATE	INITIALS	CODE

agreements of each of the parties to theother, and the considerations hereinafter provided, it is agreed as follows:

I.

That the First Parties shall have the right fora period of three (3) years from the date hereof to prospect, do assessment work, development and mining on any and all of the claims of the Second Parties above mentioned, and in so doing shall have the right to build roads, tunnels, excavations, do stripping and all other work necessary to prospect, develop and mine said claims, and to have full possession and access thereto during the term hereof: and in addition thereto, to cross over said claims in such operations in connection with their own and any other claims in the vicinity; and shall have the right to erect any structures, place any machinery and other equipment upon any and all of said claims in so doing; provided, however, that the First Parties shall be responsible for the cost of all said work, and shall not permit any liens to be filed on said claims on account thereof; it being understood and agreed that such work shall be started, as to one or more of said claims, within ninety (90) days from the date hereof.

II.

In the event First Parties shall find from their prospecting that it appears that any of said claims do not contain mineral content sufficient to justify further exploration or development, they shall notify the Second Parties thereof in writing by May 1st of any year in which assessment work has not been done that they desire said claim or claims be released from the terms hereof, and they shall thereafter be released from the terms hereof and the Second Parties given an opportunity to do the assessment thereon before the close of the fiscal year within w ich said work is required by the Federal Government to be done; and in the event the First Parties shall find any claims sufficiently rich in minerals that can be operated profitably and shall not be mined for a period of one (1) year after such discovery, the First Parties shall release the same from the terms hereof to give the Second Parties an

opportunity to do such mining.

III.

That the Second Parties shall defend First Parties as to any adverse claims or damages claimed by any other parties on account of the performance of this contract by the First Parties, and agree that they shall claim credit for any and all of said development and other work necessary for proving up on all of said claims, and shall do all things necessary to patent said claims at the earliest practical date.

IV.

That First Parties agree that in the event any minerals of sufficient richness to be profitably mined shall be discovered on any of said claims, they shall proceed to develop and operate with reasonable regularity all of said claims that it shall appear to them maybe profitably operated, and shall provide properand adequate machinery and equipmet therefor, but any such machinery and equipment placed or used on said claims shall be and remain the property of the First Parties and shall be subject to removal atany time.

V.

That if mining shall be undertaken by the First Parties, which shall become profitable, the first Parties shall pay the Second Parties a share of said profits in the following amount and manner:

1. Fifty percent (50%) of thenet profits derived from the sale of minerals and/or to be taken from said mines on said claims, net profits to be determined on the same basis as determined for Federal income partnership tax returns, but shall not include any discovery bonuses, which shall endure wholly to the benefit of the Second Parties.
2. Advances of Second Parties' share of the profits shall be made monthly upon the basis of estimates produced by the First Parties, and settlement shall be made upon the basis of the calendar year, on or before March 1st of the year following that for which said share of the profits are paid.
3. Disbursement of the Second Parties' share of the profits shall be made to such agent designated by Second Parties.
4. The Books of the First Parties shall be open to Second Parties and their agents at any and all reasonable times.

VI.

That if the First Parties shall desire to delegate the development, assessment, mining and other work herein referred to, to other parties, they shall have the right to do so.

VII.

The First Parties shall have the option of renewing this agreement for a period of five (5) years from the expiration hereof upon serving written notice upon the Second Parties, of their intention to do so, not later than thiety (30) days prior to the expiration hereof.

VIII.

Any dispute which shall arise hereunder shall be arbitrated in the usual manner before any legal actions shall be instituted thereon, each of the parties appointing one arbitrator, who shall appoint a third, and the final decision by such arbitration shall be arrived at within thirty (30) days of written notice served upon either party by the other that there is a dispute between the parties which require arbitration.

IX.

That This agreement shall be binding upon and extend to the heirs, executors, administrators and assigns of all the parties hereto, and no modification hereof shall be binding unless reduced to writing and endorsed by all the parties hereto.

IN WITNESS WHEREOF, the Parties hereto have executed this agreement in duplicate this day and date first above mentioned.

First Parties:

M P C Mining Company
by J. D. Morse
Marjorie G. Morse
Duane E. Crowe
Grace Crowe
F. W. Morse
Laura Morse
William F. Morse
Lois P. Morse
W. J. Price
Lottie R. Price

Second Parties:

Herbert E. Dennis
Ralph H. Denham
Ruby M. Denham
Betty J. Dennis

LEASE AND AGREEMENT

This Lease and Agreement made and entered into this First day of August A. D., 1956, by and between Leo Patterson Earl Patteron, as Lessors and M. P. C. Mining Co. as Lessee, WITNESSETH:

That for and in consideration of the mutual covenants hereinafter contained it is agreed between the parties as follows:

PROPERTY: Lessor leases to Lessee The "Lucky Evelyn" mining claim

PERIOD: Lease to run for a period of one (1) year four (4) months down time for winter weather. Option foran additional three (3) years if exploration of claim establishes ore body of sufficient size and quality, provided that the Lessee complies with all of the terms and conditions of the existing lease.

ROYALTY: Lessee agrees to pay the Lessors, a royalty on all valuable mineral ore including Uranium ore taken from said property, 10% on the gross value on all ore of a value up to $30.00 per ton, and 12% on all ore of a gross value of $30.00 to $50.00 per ton, and 15% on the gross value of all ore over $50.00 per ton.

Lessee shall cause these royalties to be paid direct to Lessors, and also to cause a copy of the United States certificate of purchase or smelter return orother purchaser's return, to be sent direct to Lessors at time of payments.

LAWS AND REGULATIONS: Lessee agrees to comply with all applicable mining laws and regulations of the United States and of the State of Washington; also agrees to pay when due all taxes relating to the mining property and equipment, also all Federal and State Laws such as Social Security, Workmens' Compensation, Industrial Insurance and the like; also agrees to save Lessors harmless from all expenses and liability incurred by Lessee in holding or operating the mining property; also agrees not to incur any labor or materialliens against the mining property of Lessors, and to notify Lessors at once of any such liens by writing.

ASSESSMENT WORK: Lessee agrees to perform and to record (as required by) all required annual assessment work for the term of this lease and to furnish Lessors with a copy of affidavit of such work before June 30th, 1957 without expense of Lessors.

That the Lessee shall explore and prospect said mining claim and shall diligently pursue said exploring and prospecting, using accepted methods of the locality, during said period, weather permitting, unless they abandon said property and terminate this agreement as herein provided, or should elect to actively mine said property as hereinafter provided.

That upon the expiration of the prospecting period herein provided for, or sooner, upon the election of the Lessee, they shall actively mine said property and continuously and diligently mine said property in a good miner-like manner during the entire term of this lease or any extension or renewal of the same, subject to the terms and conditions herein contained, it being understood that if weather, strikes, or other circumstances beyond the control of the Lessee make said mining impossible or uneconomical, they shall be excused from performance of this provision so long as said circumstances exist.

That any discovery bonuses received from the United States or otherwise shall be divided equally; 50% to the Lessee and 50% to the Lessors.

That the Lessors or their agents may inspect the books and records of the Lessee at all reasonable times and places and the Lessee shall allow the Lessors or their agents access to the premises for purposes of inspection at all reasonable times and places.

SURRENDER OF LEASE: Lessee shall have the privilege at any time to surrender this lease after first serving or sending to the Lessors, by registered mail, written notice thereof, provided lessee has complied with the terms and conditions of this lease.

FORFEITURE NOTICE: If Lessee fails to pay or cause to be paid any royalty when due or violates any other covenant herein, Lessors shall have the optional right to serve on it or to mail to it a sixty (60) day written notice thereof; and if before expiration of such notice Lessee fails to pay such royalty due or to rectify such breach of covenant, then at expiration of said notice this lease shall terminate, and Lessee shall forthwith vacate the premises, and the Lessors shall retain as liquidated damages, all royalty and other money payments thereto fore paid to Lessors.

ASSIGNING LEASE: Lessee shall have the right to assign or sublease its rights under this lease and agreement to others, provided they have the written consent of Lessors.

SIGNED and dated this 20th day of August, A. D., 19 56.

M. P. C. Mining Company	Leo Patterson
J. D. Morse Laura Morse	Evelyn Patterson
E. W. Morse W. F. Morse	Earl Patterson
Lois Morse	Marie C. Patterson
Marjorie G. Morse Duane E. Crowe A. Grace Crowe	
Warren J. Price Lottie R. Price (Lessee)	(Lessor)

OFFICIAL FILE COPY
D M E A
RECEIVED JUN 21 1957
DATE | INITIALS | CODE

STATE OF WASHINGTON)
SS.
COUNTY OF FERRY)

On this day personally appeared before me _____

_____

_____

to me known to be the individuals in and who executed the within and foregoing instrument, and acknowledged to me that they signed the same as their free and voluntary act and deed for the uses and purposes therein mentioned.

In Witness Whereof I have hereunto set my hand and seat this _____ day of _____ A. D., 19____.

S E A L

_____
Notary Public in and for the State of Washington, residing at _____.

My Commission expires on _____

LEASE AND AGREEMENT

This lease and Agreement made and entered into this 21st day of July A. D., 1956 by and between Douglas L. Elmes, Elver W. Rumsey and Erman E. Coil as Lessors and M. P. C. Mining Company, as Lessee,

WITNESSETH:

That for and in consideration of the mutual covenants hereinafter contained it is agreed between the parties as follows:

Property: Lessor leases to Lessee Leona Special, unpatented mining claim .

Period: Lease to run for a period of one year (four months down time for winter weather). Option for an additional three years if exploration of claim establishes ore body of sufficient size and quality, provided that the Lessee complies with all of the terms and conditions of the existing lease.

Royalty: Lessee agrees to pay the Lessors 10% on the gross value of all ore up to $30.00 per ton, 12% on all ore of a value of up to $50.00 per ton, and 15% on all ore of a value over $50.00 per ton.

Lessee Company shall cause these royalties to be paid direct to Lessors and also to cause a copy of the United States certificate of purchase or smelter return or other purchaser's return, to be sent direct to Lessors at time of payments.

Laws and regulations: Lessee Company agrees to comply with all applicable mining laws and regulations of United States and of theState of Washington; also agrees to pay when due all taxes relating to the mining property and equipment, also all Fereral State laws such as Social Security, Workmens' Compensation, Industrial Insurance and the like: also agrees to save Lessors harmless from all expenses and liability incurred by Lessee Company in holding or operating themining property; also agrees not to incur any labor ormaterial liens against the mining property of Lessors, and to notify Lessors at once of any such liens, in writing.

Assessment Work: Lessee Company agrees to perform and to record (as required by law) all required annual assessment work for year ending July 1, 1957 and thereafter, before June 1st of each year, and to furnish Lessors with a copy of affidavit of such work before June 1st of each such years, all without expense to Lessors, so long as this

lease is in effect.

That the Lessee Company shall have until Nov. 1, 1957 to explore and prospect said mining claims and shall diligently pursue said exploring and prospecting using the accepted methods of the locality, during said period, weather permitting, unlwss they abandon said property and terminate this agreement as herein provided, or should elect to actively mine said property as hereinafter provided.

That upon the expiration of the prospecting period herein provided for, or sooner, upon the election of the Lessee, they shall actively mine said property and continuously and diligently mine said property in a good miner-like manner during the entire term of this lease or any extension or renewal of the same, subject to the terms and conditions herein contained, it being understood that if weather, strikes, or other circumstances beyond the control of the Lessee make said mining impossible or uneconomical, they shall be excused from performance of this provision so long as said circumstances exist.

That any discovery bonuses received from the United States or otherwise shall be divided equally: 50% to the Lessee and 50% to the Lessors.

That the Lessors or their agents may inspect the books and records of the Lessee at all reasonable times and places and the Lessee shall allowthe Lessors or their agents access to the premises for purposes of inspection at all reasonable times and places.

Surrender of lease: Lessee company shall have the privilege at any time to surrender this lease after first serving or sending to the Lessors, by registered mail, written notice thereof, providing Lessee Company has complied with the terms and conditions of this lease.

Forfeiture notice: If Lessee fails to pay or cause to be paid any royalty when due or violates any other covenant therein, Lessors shall have the optional right to serve on it or to mail to it a sixty (60) day written notice thereof; and if before expiration of such notice Lessee fails to pay such royalty due or to rectify such breach of covenant, then at expiration of the notice this lease shall terminate, and Lessee shall forthwith vacate the premises, and the Lessors shall retain as liquidated damages, all royalty and other money payments theretofore paid to Lessors.

Assigning lease: Lessee Company shall have the right to assign or sub-lease its rights under this lease and agreement to others, providing they have the written consent

of the Lessors.

Signed and Dated this 21st day of July, 1956

J. D. Morse

F. W. Morse

D. E. Crowe

W. F. Morse

Warren J. Price

Lessee

Elver W. Rumsey

Erman E. Coil

Douglas L. Elmes

Lessors

OFFICIAL FILE COPY
O M E A
RECEIVED JUN 21 1957
DATE | INITIALS | CODE

THIS CONTRACT Made and entered into this 31st day of August, 1955, by and between W. F. Morse, F. W. Morse, J. D. Morse, Duane Crowe, and Warren J. Price, doing business under the assumed firm name and style of M. P. C. Mining Company, with principal place of business at Malo, in Ferry County, Washington, hereinafter called the First Parties, and Cecil Cooper and Grace Cooper and Bill Cooper, husband, wife and son of both, of Ferry County, Washington hereinafter called the Second Parties,

W I T N E S S E T H :

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957

DATE	INITIALS	CODE

WHEREAS, Cecil Cooper and Grace Cooper, husband and wife and Bill Cooper, son, are the locators of the following mining claims, to wit:

Lone Wolf, PayDirt #1, PayDirt #2, and Paydirt #3, in Section 22; All of which claims are of the dimensions of 600 feet x 1500 feet and all in Township 38 North, Range 34 East of the Willamette Meridian in the Curlew Mining District, Ferry County, Washington, Mt. Leona location,

WHEREAS, the First Parties are the owners and locators of mining claims in the same vicinity as the claims above mentioned and are owners and operators of machinery and other facilities for the prospecting and developing of mining claims, and now have machinery at work and are developing claims in the vicinity of the claims above mentioned, and the Second Parties are not presently in a position to work their respective claims and desire the First Parties to work their claims for them in conjunction with the claims of the First Parties.

NOW, THEREFORE, in consideration of covenants and agreements of each of the parties to the other, and the considerations hereinafter provided, it is agreed as follows:

I.

The Second Parties do hereby give, grant and convey

unto the First Parties and undivided one half (1/2) interest in all of said claims, and in return therefore the First Parties agree to do the necessary work for proving said claims for the period of one (1) year and for an additional year to do the required assessment work thereon, all at the expense of the First Parties.

II.

That when the patents shall be issued on said claims, they shall be issued to show the interests of the parties hereto in accordance herewith.

III.

That theSecond Parties shall defend First Parties as to any adverse claims or damages claimed by any other parties on account of the performance of this contract by the First Parties, and agree that they shall claim credit for any and all of said development and other work necessary for proving up on all of said claims, and shall do all things necessary to patent said claims at the earliest practical date, except the actual proving and assessment work to be done by the First Parties as hereinabove provided.

IV.

That this agreement shall be binding upon and extend to the heirs, executors, administrators and assigns of all the parties hereto, and no modification hereof shall be binding unless reduced to writing and endorsed by all the parties hereto.

IN WITNESS WHEREOF, the Parties hereto have executed this agreement in duplicate this day and date first above mentioned.

First Parties:
M P C Mining Company
J. D. Morse
Marjorie Morse (wife)
F. W. Morse - Laura Morse
W. F. Morse - Lois Morse
D. E. Crowe - Grace Crowe
W. J. Price - Lottie R. Price

Second Parties:
Cecil Cooper
Grace E. Cooper
Bill cooper

July 21, 1956

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 21 1957

DATE	INITIALS	CODE

Mr. J. D. Morse

M P C Mining Company

Malo, Washington

Dear Sir:

Pursuant to your request I have made a geologic reconnaissance of your property for the purpose of suggesting a plan of prospecting and exploration, spending July 13 and 14 in geologic study on the property and herewith submit my report thereon.

Very truly yours,

Donald L. Masson, Licensed
Mining Engineer

General The property is located on the east side of Leona mountain, about eight miles east of Malo, Washington. Leona mountain is a long ridge about 6,600 feet in elevation running in a rough north-south direction. The sides are steep and the topography is rugged. The western side is covered with large trees with numerous open glades or parks; the eastern side is covered with a dense growth of small trees. Both sides are covered with a thick soil mantle, the eastern side has several rock outcrops and a few steep rock cliffs of from ten to forty feet high. The vegetation, forest duff and soil make prospecting and geologic study difficult as they cover most of the surface and make it necessary to trench, strip or drill to secure geologic information; continuous stripping is necessary to secure continuity of information. The property is accessable to jeep travel over prospecting trails bulldozed in the soil, either from the west or from the east along Peter's creek. These trails have not been cut deep enough to expose solid rock in most places. Grades are steep and curves are sharp. Neither trail would be suitable for ore trasportation without considerable relocation, widening, surfacing with crushed rock and, in general, increasing the curve radii, decreasing the grades and making a solid foundation.

Area Geology An attempt was made to make a rough determination of a geologic column of an area in the plane of the road across Leona mountain from the west to the east. The western foot of the mountain is covered with soil and alluvium of indicated sedimentary origin. Higher on the mountain the trail cuts sedimentary rocks in place. These are schists, shales and quartzites; one thin bed of blue limestone occurs in the upper half of the mountain. There are no indications of igneous rocks found west of the summit in this plane although they were found several hundred yards south.

A jeep trail runs along the crest of the ridge. Several acidic pegmatite dikes cross this trail several hundred yards south of its intersection with the east-west trail across the mountain; farther south along the crest are medium grained quartz-monzonite and grano-diorite intrusives. East of the summit on the main east-west jeep trail are sedimentaries. Several hundred feet east of the crest and continuing almost to the bottom of the mountain are a series of pegmatite and aplite dikes in grano-diorite. Due to the limited time of the examination the relationship between the two phases of dikes was not investigated as ground cover concealed the contacts and made it impossible to trace them without considerable work. In some places the aplites show little or no ferro-magnesium rock forming minerals. In other places the pegmatites contained high percentages of them. Both types are garnetized and both are metamorphosed in places to varying degrees to gneisses, sometimes being completely separated into bands of dark and light colored minerals. Some of the wall rocks are also gneissic. These wall rocks vary in grain size from coarse to medium fine. The dikes have widths up to fifteen feet. They have been subjected to intense crushing and in places have numerous slips although no faults of appreciable displacement have been found. Lower on the east side of Leona mountain numerous areas of medium to fine grained granitic intrusives are found and, lower on the mountain, sedimentaries, schists and quartzites. One speciman of andesite float was found near the bottom of the mountain. In general the granitics of the area are hard and relatively unaltered. This is indicative of the rapid erosion of the steeply sloping mountain. In a few areas of minor extent, granular sand resulting from the alteration fo certain granitics was found.

Economic Geology Numerous small and localized sections of both types of dikes show high radioactivity, in some cases giving a count with a Geiger

counter of from fifteen to twenty times background count. In general, these areas are small, having a lateral extent of a few feet. It is seldom that the dike gives a high count over the full width. This is typical uranium mineralization in pegmatites. Uranium minerals are frequently found in pegmatites but only in a few instances has it been found in mineable quantity. In these deposits the ore has been spotty and, in general, of low grade.

Primary mineralization in the pegmatites on Mt. Iscna is by radio-active blacks. Several crystals of uranianite were inentified in this investigation. Gravity concentration tests show radioactive black minerals not identified as uranianite. These are associated with biotite; several books of this mineral were concentrated with the heavier minerals by gravity. A study of these heavy books revealed inclusions of radio-active blacks with the biotite. Microscopic study indicates that these are not all uranianite. Smoky quartz, an indicator of uranium mineralization in this area is present in several areas. One crystal 3/8" in diameter was found. Many specimens were studied that contained fine grained smoky quartz. This quartz is not highly radioactive in itself. Numerous bright red and yellow spots in the dikes, usually in areas of large feldspar crystals, also are an indication of uranium mineralization. There was no speciman of pitchblende found in a microscopic study of the ore minerals. The pitchblende reported by an assayer may have been mistakenly identified.

Monazite, a cerium, lanthanum, didymium (neodymium, praesodymium, lanthanum) phosphate containing thorium silicate in solid solution was found in minor amounts in some of the mineralized areas. This, too, was associated with biotite. The amounts found are too small to make this a possible ore of monazite. At the present time there is no market for monazite.

There are numerous areas in the deposits where secondary uranium minerals occur. Autenite occurs in greatest quantity and can be determined by the

bright green color, tabular crystals, fluorescence and radioactivity. Some specimens of torbnerite, an apple green copper uranium phosphate were also found. The light, cream-yellow mineralization on the fracture surfaces that shows a high fluorescence was studied under the microscope. This was found to be hallite with a small amount of uranium mineralization. In general it is not highly radioactive. This has been incorrectly identified as uranophane. That mineralization that shows radioactivity may be mined as ore. Some of the more highly colored yellow mineralization proved to be an asbestos, tremolite, with some secondary uranium mineralization when studied under the microscope. In general, this secondary uranium mineralization is found on the fracture surfaces of the rock although a few specimens show erratic specks of fluorescent mineralization disseminated throughout the rock.

Some of the mineralized sections of the dikes show appreciable bleaching and the formation of the kaolin group clay minerals. This is indicative of epigenetic mineralization. In some areas of the coarse grained pegmatites there has been extensive oxidation of the ferro-magnesian minerals leaving a coat of limonite stain on the fracture surfaces and altering the dike rock. This is especially noticeable in the Dandy deposit.

Specific Areas Investigated

<u>Leona Special</u> A light colored pegmatite dikeabout 10' wide, striking N 15' W and dipping steeply to the west was found cutting schist and quartzite beds. This area had been stripped and the surface rock removed by blasting and bulldozing. These sedimentaries had a local strike of N 30 degrees E and dipped 28 degrees to the southwest. This pegmatite is quite acidic, has little mica or other dark colored rock forming minerals. For a distance of several feet a count of

from 14 to 20 times background count indicates intensive radioactive mineralization. There is considerable autenite on the fracture surfaces. There were numerous yellow to smoky colored halos, indicative of uranium mineralization. About 200 feet northwest is an area in the dike where a count of 8 times background count is obtained. Because of the deep soil it is difficult to obtain data on the intervening area but it is indicated that the mineralization is not continuous.

Dandy An area of dark colored, garnetized pegmatite dike on this claim has a count of from 14 to 16 times background over a strike length of about 25 feet. The strike of the dike is N 20 degrees W and the dip 70 degrees to the SW. The width of the dike is about 15 feet. This area has been subjected to metamorphic action and contains areas of gneiss, some completely banded into dark and light colored mineral bands. The hanging wall of the dike is a migmatite with altered schist and quartzite inclusions in a granitic groundmass. On the south walls of the pit is a Xenolith, a comparatively fine grained granitic inclusion of a rock type not found in other areas of the property. About two hundred tons of ore have been reported as mined from the pit on the deposit and stored. The area around the pit has been stripped for some distance to the north, south and west without finding additional ore. The depositha s been drilled by twelve holes. These holes and their cuttings have been checked by a drill hole probe for radioactive areas. They were mapped during the investigation and carefully studied. They fail to show a trend of mineralization for additional drilling or other prospecting recommendations. They indicate a spotty and erratic mineralization. They do indicate about 250 tons of ore with a reported high radioactivity. The results of these holes does not preclude extension of the mineralization shown in the pit. Minerals found in this deposit include autenite, torbernite, monazite, uranianite and radio-active blacks. Hallite is abundant. Secondary mineralization occurs on the fractured surfaces of the

yellow to green mica
$H_4Mg_2(Al,Fe)_4Si_9O_{18}$

rock. Because of structural conditions this area is favorable for the formation of economic deposits of secondary uranium minerals. The pegmatite is badly altered in places and the fracture planes have a coating of limonite. The area is fractured and a permeable zone seems to exist on the hangingwall contact. After the open pit has been mined out an intensive geologic study of the area may indicate an area that should be investigated and explored by means of drilling.

H and R. No. 2 On the H and R No. 2 claim a dike of coarse grained granodiorite striking N 10 degrees W has a area with a count of sixteen times background. This area has a biotite granite hanging wall and a gneiss footwall and is part of a dike. This dike is badly bleached in spots. There are frequent crystals of autenite, some about 1/16" square. The area has been drilledby longholing. Holes 17, 18, 19 and 20 outline a block of about three hundred tons of reportedly highly radioactive mineralization. These holes were reported radioactive to a depth of 15 feet. It is quite possible that the block of mineralized dike is larger than indicated by drilling.

On the north side of this claim is another area of high radiometric count on an acid pegmatitic dike. Because of the soil and vegetation the dike could not be traced to determine whether or not it is a continuation of the dike described above. This dike strikes N 30 degrees W and dips 46 detrees to the SW. It is ten feet wide. It is a different rock type than that described above but the thin pegmatite dikes of the area change grain size in a short distance laterally. In this dike are numerous well formed crystals of smoky quartz. It also contains abundant autenite on the fracture faces and is garnetized. Hallite is abundant. The dike is badly bleached in spots. One drill hole was reported t o have a high count for a depth of eight feet. This dike seems to be faulted in the middle with a two foot section of a dark colored biotite granite intruded in the center, tentatively a dike within a dike. If this interpretation is correct then the acid pegmatites must be an earlier phase than the biotite granitics. In this area and the acid pegmatite has a medium grained granite in the hangingwall and a

schist footwall. Both of the above deposits had beenstripped and the surface rock blasted and bulldozed off.

Yellow Jacket The dike on the south end of the H. and R. No. 2 can reportedly be traced for about a mile to the south. Hot spots or areas of high radioactive mineralization as determined by a high count are reported in various places along this dike. About 250 feet south of the hot spot investigated on the south end of the H and R No. 2 claim is another area of high count. One counter of over 50 times background was obtained. This deposit has been explored by drilling 6 holes. Two of these were reported to have a high count at 45 feet. The area between this spot and the one on the H and R No. 2 was investigated and the dike found could be traced by a continuous count several times background. The dike on the Yellow Jacket is from 10 to 15 feet wide and is of a different rock phase than that of the deposit to the north. On the Yellow Jacket the rock is a coarsly crystalline, dark colored grano-dbrite or fine grained grano-diorite pegmatite. Over half of the rock forming mineral is a dark colored ferro-magnesian mineral. There are gneissic areas in the pegmatite and some garnet is present. Radio-active blacks are present as the primary mineralization. Autenite is present on the rock fractures as is abundant hallite. The area on this claim and the H and R No. 2 to the north have the best indication of a deposit of mineable primary ore than do any other on the property.

Sleepless Night This hot spot is on a pegmatite dike near a hot spot on the property of the Pacific Uranium Companies' property. The dikes are parallel to each other but, while no survey of this area was made, it is indicated that a projection of the Sleepless Night dike is about 200 feet to the west of that of the Pacific Uranium Company. The Sleepless Night dike has a strike of due north and dips 57 degrees west. It is 10 feet wide and has quartzite and granite contacts. Primary mineralization is radioactive blacks. Secondary autenite with biotite is found. Hallite is abundant. The black banded graite on the

contact having smoky quartz and biotite is the mineralization having the highest count. Counts up to 16 times background were obtained.

Lucky Pete This hot spotis on the contact of a gneissic garnetized granodiorite with a pegmatite dike. Lateral extent of the area of high count is limited to about 20 feet. The mineralized formation is about 4 feet wide, strikes north and south and dips 41 degrees to the west. Counts of from 5 to 8 times background were measured. One raiometric assay of .71% uranium equivalont was measured. ~~One raiometric a~~ The area was drilled by 2 holes 72 feet deep. One of these was roughly projected to the mineralized contact. It is indicated that the hole failed to reach the contact. Other hot spots are reported to the south.

Crazy Creek On this claim a slightly gneissic pegmatite dike has a hot spot of about 16 times background count. The dike was difficult to evaluate as there had been little stripping in the area. The hot spot has been drilled with eight holes, none of which show appreciable radio-activity. One speciman from this spot had a reported radiometric equivalent of .75 % U_3O_8. There is little in this area to justify additional prospecting at the present time.

Lone Wolf This is an area on the west side of the crest of Leona Mt. where a slightly radio-active zone is found in the soil and slide rock overlying the area. One hole has been drilled here without results. Bedrock was not exposed in the area by trenching. The area of radioactivity is reported to be about 1/2 mile long. There is not indication of igneous rock in this area. The surface broken rock is schist and is overlain by quartzite higher on the mountain. There is little indication as to the source of the radio-activity. Two conditions are possible to account for it. One is that a pegmatite dike exists under the soil and surface duff. There is no indication of igneous rock float in the area. The erratic radio-active mineralization of the pegmatite makes it extremely improbable that pegmatite radio-active mineralization ~~exists~~ can be traced for half a mile under several feet of soil. The second and more tenable theory is that the radioactivity is due to secondary mineralization along a

permeable channel. There is no evidence that was discovered that would support this theory. Never-the-less it seems to be the more probable of the two. Prospecting for this may be long and expensive and a commercial body of ore may not be found. There is no evidence that the radioactivity is due to a primary vein type of mineralization. While this is possible there are no discovered deposits of this nature in the distict.

Several other hot spots on the property were visited but present geologic evidence indicates that additional prospecting on these should be deferred until after the preceeding areas have been explored.

Conclusions 1. There are no indications as yet of a commercial deposit of monazite or the rare earths. It is possible that additional work in the district may discover values in monazite.

2. While the history of known uranium mineralization in pegmatite dikes is that commercial deposits of uranium minerals in these dikes are extremely rare, spotty and low grade yet local geologic indications are that additional prospecting may prove primary deposits in certain areas. especially in the H and R No. 2 and Yellow Jacket areas.

3. Additional prospecting may prove areas of commercial secondary uranium mineralization. There are several favorable areas for mineralization of this nature, the Dandy, Lone Wolf and Sleepless Night.

Recommendations 1. Because of the erratic nature of mineralization on the property and of pegmatites in general I suggest that all expenses should be kept at a minimum until such time as sufficient ore reserves blocked out justify a large capital investment.

2. A careful sampling program should be started with records kept of each sample, its location, general description and values. All samples that

are analyzed by means of chemical means should be given a radiometric determination and records kept of the differences in actual and radio-metric values. Because of the expense of the chemical analysis, corrected radio-metric determinations will give an accuracy sufficient for many prospecting purposes. It will probably be necessary to separate ore samples for radio-metric determination into classes depending on the monazite content and apply a different correction for each class.

Samples should be taken across the ore body perpendicular to the strike. They should be carefully taken, of a width that will be mined. Equal amounts of sample should be taken for each lineal inch of sample length.

3. After the deposits controlled by the company are sampled and an estimated tonnage sufficient to make a lot of ore has been blocked out I suggest that a contract be obtained from the A. E. C. for a lot of ore and a lot mined and shipped. From the indidations that you have developed, prospecting can be better done by actual mining than by trying to drill the hot spots to determine their extent. As primary uranium mineralization in pegmatites is erratic and spotty, short drill holes are apt to give inconclusive and misleading results. The results are also difficult of interpretation. By actual mining the work can be directed to any spot that has indications of ore.

4. Commercial secondary uranium mineralization should be the secondary objective of prospecting on your property. This should be done by 1. prospecting in areas of primary mineralization, especially in areas that are or may have been some time in the past geologic history of the deposit permeable to circulating ground waters. In general these will be in areas where primary mineralization occurs along contacts or in crushed, fractured or shear zones. Look for these zones that have been silicified and are no longer permeable as former ground water circulation may now be sealed off.

b. Look for secondary uranium mineralization in faulted or fractured areas at some distance from the primary pegmatites. These ore bodies are possible at a distance of several miles from the primary source. It ismore probable that they will be close to or below the primary mineralization if suitable structural conditions are present. Prospect for structure, then for indications of uranium mineralization. The most favorable area noted for this type of uranium mineralization is in the Lone Wolf area. The soil in this location makes prospecting difficult.

5. The mineralized area showing the greatest count on the Leona Special claim should be prospected by mining any ore that samples indicate. If the commercial ore does not extend continuously to the area of mineralization indicated to the northwest then the area between should be given an intensive check for radio-activity and trenches bulldozed to solid rock in areas of high count. I suggest deferring work in this area until after the H and R. No. 2 - Yellow Jacket and Dandy areas are explored.

6. The mineralized area of the Dandy deposit should be sampled and, if ore, should be explored by mining. In the erratic mineralization indicated, drilling results are inconclusive. A study of the drilling done does not indicate the advisability of additional drilling of the pegmatites at the present time. When additional exploration is done by mining, geologic data this opened up may indicate the advisability of more drilling. If the ore is mined out of this area and there is an indication of a permeable channel from the bottom of the pit an additional study should be made to determine whether or not to drill or sink a winze.

7. The area between the two hot spots on the H and R. No. 2 should be carefully checked with a Geiger counter and areas of appreciable count should be trenched with a bulldozer. The area between the H. and R. No. 2 and the hot spot on the Yellow Jacket should also be investigated. I suggest t hat these

areas be explored by mining and that they should be one of the first areas to be investigated by this method. The possibility of an ore shoot 250 feet long should be proven or disproven.

8. The Sleepy Night has better geologic indications for prospecting than the deposits on the eastern side of the property. However, prospecting is this area by mining should be deferred until after the Yellow Jacket - H and R No. 2 and Daddy areas are explored.

9. Because of the limited extent of mineralization, additional prospecting of the Lucky Pete is not recommended at this time. Because of the reported radio-activity to the south this area should be reviewed after the other areas have been explored.

10. Prospecting of the Crazy Creek deposit should be deferred until more promising areas have been investigated.

11. I recommend deferring prospecting of the Lone Wolf for a while. While this is a promising area there are few geologic indications upon which to plan prospecting. After additional checking with a Geiger Counter I would suggest trenching to solid rock with a bulldozer at right angles to the strike of the radio-active zone.

ADDENDUM TO REPORT OF GEOLOGIC RECONNAISSANCE OF M B C PROPERTY

On August 30 - 31, 1956 a second study was made of the uranium mineralization on the M P C property as shown by the development recommedned in the report of July 31, 1956. This development had been done by blasting, bulldozing and otherwise exposing the surface outcrops of uranium mineralization and opening the area for additional study. Some of the blasting opened the deposits to depths up to ten feet deep. In general the uranium mineralization increased in this shallow depth, which was to be expected. It is less probable that it should increase appreciably at depths greater than twenty feet below the rock surface. As a result of this development, conditions at the property are much more favorable for geologic study than they had been at the time of the first reconnaissance of July 13-14. Certain tentative hypothesis made at that time on the basis of the sparse rock outcrops and the development work done prior to the examination are subject to minor revisions due to the additional data available. In general the former interpretation was substantiated by the additional development.

General Economic Geology. The primary uranium mineralization found occurs in a coarsly crystalline pegmatite dike striking from N 15 degrees W to N 50 degrees W. The secondary mineralization occurs in the same dike on rock fracture faces along fractures and in brecciated areas. The dike has been subjected to intense metamorphic action and the dike and wall rocks have been metamorphosed to granitic gneisses in many places. The uranium mineralization in the first case occurs associated with biotite and may occur as masses and crystals enclosed in biotite.

Secondary mineralization occurs in the dike, along fracture surfaces and on both contacts. In some cases it occurs under rolling gneissic structures. The wall rocks are fine grained granitics and gneisses. On the Dandy claim sedimentaries are found on the hanging wall. There are numerous fractures and in some areas the dike is fractured. There was no major fault or fault system discovered on the property. The recent development has exposed rock outcrops to indicate that the dike is continuous through the Lucky Boy 12, H and R. No. 2 and Yellow Jacket claims. The Crazy Creek area may or may not be a continuation of the same dike as lack of continuity in surface outcrops, deep soil and heavy vegetation make it impossible to trace the dike accuratly. The Sleepless Night dike could not be traced to the main dike although the rock type is similar. The relationship of the dike on the Dandy, Lucky Evelyn and Leona Special claims also could not be traced. One mineralized area shows continuous mineralization, as near as could be determined, for about 2500 feet, with several ore shoots that additional development may prove mineable. Present development indicates several such shoots of from 60 to 150 feet in length with no positive termination of high grade values at the ends of the shoot. These should be sampled to prove commercial values although radiometric analysis indicate that they are commercial.

Some of the ore but not all of it contains monazite. It also contains radioactive blacks and autenite. These are quite sparse radioactive blacks and, in places, abundant secondary uranium mineralization, with autenite and uranophane. Uranophane is the more common mineral. There is considerable hallite and hyalite present, non-radioactive minerals that fluoresce and are sometimes mistaken for autenite. Because of the small size of the radioactive black minerals and the difficulty of collecting and separating specimens of the same mineral, the minerals of the radioactive blacks have not been identified with the exception of a few small pieces tentatively identified as uranianite. Nowhere in the deposit have there been found areas of commercially important primary uranium mineralization.

There may be enough primary mineralization to raise the grade of some of the secondary ore of commercial grade. Indications are that all commercial mineralization on the property will be secondary. While it may be possible to find an area of primary uranium mineralization of mineable content on the property there is no indication of such an area. Known geology of similar uranium deposits do not indicate that this is probable. The monazite content of the specimens examined is very low. Monazite concentrates made from the ore show appreciable rare earth content by spectrographic analysis but the very sparse mineralization precludes the economic recovery of a concentrate.

The probable depth of secondary mineralization is of importance in the valuation of the property as it determines ore reserves. The property is located on a steep mountain side in a region of rapid erosion. The fact that secondary mineralization is found at the rock surface indicates that erosion is proceeding faster than migration of secondary mineralization. The rock fractures do not show alteration or appreciable secondary iron mineralization. The rock fractures are, in general tight. This is indicative of a rather shallow zone of secondary mineralization. While the depth will have to be investigated by drilling, development or mining it is indicated that the mineable zone of secondary enrichment will not reach five hundred feet as a maximum and may be appreciably less than this.

The areas of secondary uranium mineralization shown in this study were much more encouraging than on the study of July 13 - 14. Definite continuity of mineable quantities of secondary mineralization are indicated along the strike of the dike and mineable widths have been exposed. Themineralization has some geologic conditions similar to those reported in the mineralized area on Mt. Spokane, roughly ninety miles by airline to the southeast. There autenite is found in fractures in a coarsly crystalline granite. The secondary uranium

mineralization on the Mt. Leona deposits is on fracture surfaces in fault planes and brecciated surfaces in a coarsly crystalline granite or granitic pegmatite and granite gneiss. As the Mt. Leona deposits have no well defined hanging and foot walls, mining will have to be carried to assay walls.

Prospecting for new areas should be continued on the property, especially along fractures in the granitic pegmatite. It is quite probable that there are undiscovered shoots of commercial uranium mineralization on the property; during this examination one such an area was traced while examining a reported small hot spot on the Leona Special claim. It is possible that bulldozing and blasting in this area would prove a larger area than indicated.

While tonnage calculations cannot be made without a complete sampling of the orebodies and without proof of continued mineralization in depth it is indicated that several thousand tons of mineable uranium ore have been exposed for mining.

The development previous to the examination of July 13- 14 did not prove widths of commercial uranium mineralization. It was indicated that these were relatively narrow and blow mineable width. Subsequent development indicates widths of from five to fifteen feet for the shipping ore and an additional width of up to fifteen feet of milling ore. This latter is submarginal at the present time but would be valuable if a suitable method of concentration were perfected for milling on the property. The two walls of the property have not been definitely determined and mining widths may exceed those indicated by present development. These wider widths indicate larger tonnages and widths suitable for underground mining. In general it will be necessary to mine the deposit by underground methods as the narrow width of the ore bodies will make uneconomical the stripping and removal of waste rock that open pit mining would necessitate. Underground mining requires a five foot width as a minimum for deposits of this nature. When mining deposits of less that this width, mining costs per ton of ore mined are high because of the necess ity of mining waste rock and the difficulty of

keeping the ore and waste separate. As it is necessary to ship uranium ore of a grade above .20% minimum U_3O_8 content (.25% for the offered contract) care will have to be taken to prevent dilution. Within limits, the cost of mining a ton of ore varies inversly with the width of the deposit. although not necessarily in direct proportion. The indications of wider mining widths encountered in the recent development work on the property are encouraging.

A comparison of the uranium content of certain specimens sent for chemical analysis with the indicated uranium content obtained by radiometric analysis is indicative that stability has not been reached in the deposit. The chemical analysis is appreciably higher than the radiometric analysis. Additional analysis and comparison may prove or disprove this. It is suggested that, on the basis of the data obtained, that radiometric analysis data be multiplied by 1.25 to obtain the true chemical analysis.

Specific Area Analysis

Crazy Creek. This area was blasted and a good but not optimum count for the area was obtained over an area of 10 to 20 feet. Uranophane is present as the secondary uranium mineral. This development together with the high count reported from the stream banks below the development indicate that additional prospecting may prove a commercial ore body. The pegmatite of this area has been intruded by quartz monzonite containing disseminated pyrite and dornite, a copper sulfide. This latter is so sparse that, in the areas examined, it could not be considered an ore under any conceivable circumstance.

Lucky Boy 12. In the lower part of Lucky Boy 12 claim considerable new development has resulted in the outlining of indicated commercial values for a length of over a hundred feet and a width of, in places, fifteen feet. A count of several times background is obtained for a width of about 60 feet, although it is questionable as to whether mineable ore will be found for this width. Uranophane with minor autenite are the ore minerals. There is also

hyalite and hallite on the fracture surfaces. The ore of this area has a higher radioactive black content than in some of the other mineralized areas. These minerals are concentrated in the biotite in the black bands of the gneiss.

In the upper part of the Lucky Boy 12 claim (about 100 feet south east of the lower area) an area 50 feet long by 10 feet wide has the high count indicative of commercial ore. An area of lower grade uranium mineralization extends to the area in the lower part of the claim, also to that on the Yellow Jacket claim. This area may eventually be proven to be a large area of low grade milling ore. This mineralization has the same character as that on the lower part of the claim except that the radioactive blacks are sparser.

Yellow Jacket. Recent development has opened up an area of approximately 50 by 50 feet of high count mineralization. This has an extension of lower count mineralization of 300 feet to the southwest and 200 feet to the northeast end and joins the mineralized area on the H and R. No. 2 and Lucky Boy 12. This area is very promising and development should be continued here. The uranium mineralization on this claim is chiefly uranophane with sparse autenite.

Lucky Evelyn. On this claim additional development has opened a high count area of uranophane and autenite for a length of 30 feet and a width of about four feet. The area of highest count is immediately under the schistose rock which has acted as a dam to the mineralizing solutions that carried the secondary minerals. The highest count follows the fractured area along the upper contact of the dike. This is one of the few areas on the property that shows minor iron stain and gouge along the fault. In this area the biotite mica is associated with the areas of high count and contains minor radioactive blacks and monazite.

There are several areas of high count (hot spots) near this area. They have not been developed. About 100 feet down the hill is a small spot of 2 by 2 feet. A hundred and fifty feet below this is a second hot spot 4 feet wide by 12 feet long (no. 3) a hundred and fifty feet east of the second hot spot is a small radioactive area (no. 4). Forty feet from the no. 3 area is a highly radioactive area prospected during this study. Surface readings indicate an area 60 feet long and from five to eight feet wide of high count mineralization with an additional 100 feet of lower count to the east. This area should be developed by additional prospecting.

In general the recommendations made in the reconnaissance of July 13 - 14 should be followed farther with the exception of No. 10. Additional work in this area is recommended to develop the ore shown by recent development.

Donald L. Masson
Licensed Mining Engineer

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-15	Murphy	700
11-15	Ellis	700
11/15	Martin	130
"	Johnson	110
"	Mittendorf	100
11/19	C	220
		130
11/15	Williams	
11/15	Lamb	130

M. P. C. Mining Company, Partnership

NOV 18 1957

Malo, Washington

Re: Docket No. DMEA-4767 (Uranium)
Dandy, et al., Claims
Ferry County, Washington

Gentlemen:

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

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

Careful study of all our information, although noting some uranium mineralization on your property, indicates that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

FMMurphy/izm 11-15-57
cc: Mr. Murphy
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
DMEA FT Reg. I (2)

8623

Docket

November 15, 1957

Murphy
Ellis

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4767

Commodity: Uranium

Amount of Application: $67,200.00

Applicant: M. P. C. Mining Company
Malo, Washington

Property: Applicant is the owner of the 24 unpatented lode mining claims and lessee of the 22 claims listed in the application. The claims are situated in secs. 14, 22, 23, and 26, T. 38 N., R. 34 E., Ferry County, Washington

Date of Application: June 20, 1957

Referred to Reg. I: June 28, 1957

Field Exam. made: August 13-14, 1957

FT Report received: October 29, 1957

Work Proposed:

The location and extent of the exploratory work was given in a general manner. No precise targets were mentioned, except that the company was presently exploring many extremely high radiation areas. The Applicant stated that about four miles of road would need to be constructed if shipping of ore was possible. Judging from the Applicant's estimates for the project work, the cost of this road work is included.

Estimated Costs:

Independent Contracts - 2 year period

500 ft. drift @ $14.00/ft.	$7,000.00	
500 hrs. dozer work @ $12/hr.	6,000.00	$13,000.00

Work to be done by Applicant - 2 year period

2,000 ft. short-hole drilling @ $1.50/ft.	$3,000.00	
1,000 hrs. HD-5 loader @ $10/hr.	10,000.00	
Dynamite	2,000.00	
Geologist	2,500.00	
Labor	30,000.00	
Use of Jeep	1,200.00	
Use of International 4-wheel drive	2,500.00	
House rent and office space	1,000.00	
Contingencies	2,000.00	$54,200.00
Grand Total		$67,200.00

The Applicant proposed to furnish its share of the costs by use of the following equipment:

1 HD Allis-Chalmers loader	$11,000.00
1 LeRoi Tract-air Wagon drill	6,500.00
1 4-wheel drive unit	3,250.00
1 Pioneer diamond drill, portable	1,200.00
Total	$21,950.00

Excerpts from Field Team Report by H. F. Albee, USGS & G.G. Waddell, USBM:

Most of the claims, which cover an area of nearly one and a half square miles, lie on the eastern slopes of Mount Leona at altitudes that range from 5,000 to 6,500 feet.

The dominant rocks seen on the property consist of biotite schist with granitic facies in the northern part and irregular masses of pegmatite in the southern part of the area.

The Applicant has done considerable work comprising road building, bulldozing at least 12 cuts, and some wagon drilling. The wagon drill holes did not give any positive results.

No evidence was seen to indicate a target area for exploration. Random occurrences of sparsely distributed uranium minerals were found on joint and fracture surfaces. Anomalous radioactivity away from places containing visible uranium minerals were found only in garnet -bearing schistose and granitic rocks. These anomalies were small and were detectable only at some places within the garnet-bearing material.

Ten samples were taken from rocks that showed the highest radioactivity. The assays ranged from 0.009 to 0.091 percent U_3O_8. Assays of 18 samples taken by the AEC from the property prior to the DMEA examination showed similar results.

Since the examiners could find no favorable target area for exploration, and the Applicant's representatives were vague when questioned on this subject in the field, the examiners and Field Team recommend that the application be denied.

Commodity Member's Comments:

USBM, James Paone, November 1, 1957:

Mr. Paone concurs in the Field Team's recommendation.

USGS, W. P. Williams, November 13, 1957:

Mr. Williams agrees with the field examiner's findings and concurs in their recommendation for denial of the application.

Div. of Rare & Misc. Metals, F. M. Murphy, November 15, 1957:

It appears that the low-grade uranium mineralization on the claims might be due to secondary enrichment derived from minerals in the numerous pegmatite masses. There are no major fractures, joints, or faults on the property that might be worth exploring, hence, in the opinion of the DMEA examiners, no favorable target area for exploration is evident.

Conclusion and Recommendations:

Assays of samples taken from places showing the highest radioactivity, indicate that the best material is not of ore-grade, moreover, there appears to be no favorable structure on the claims where ore-grade material might occur. Therefore, this Division concurs in the Field Team's recommendation that application DMEA-4767 should be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

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

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 14 1957

DATE	INITIALS	CODE
11/14	gk	220
"	FDM	700
	Complete	

Memorandum

November 13, 1957

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

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

Subject: Review of field examination report, DMEA 4767 (uranium), M.P.C. Mining Company, Dandy claims, Ferry County, Washington.

The examining team report that the probability of finding minable deposits of uranium ore on the applicant's property is not good. They describe how somewhat anomalous radioactivity is afforded by sparsely distributed uranium minerals on joint and fracture surfaces in biotite schist.

Several samples, taken both by the field examiners and the AEC, all gave low assay results.

The examiners believe that the property offers no real exploration target; and I, therefore, agree with the recommendation for denial of the application.

W. P. Williams

W. P. Williams

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 4 1957

DATE	INITIALS	CODE
11/4	C	220
11-4	FMM	700

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

Date November 1, 1957

DMEA Docket No. 4767
DMEA Contract No.
Commodity Uranium
Name of applicant M.P.C. Mining Company
Name of property Dandy, et al. claims
Location of property Ferry County, Washington
Estimated cost of project $67,200

From: Ernest William Ellis, DMEA Member
Uranium Commodity Committee
To: James Paone, Bureau of Mines Member
Uranium Commodity Committee
Report: Review of Field Team Report
(Application, Field Team Report, etc.)

1. Date of subject document: 10/17/57. 2. Date received by reviewer: 10/31/57

3. Prior experience on this property known to reviewer: Yes ☐ No ☐

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

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

9. Action advised:
a. Obtain information from applicant ☐
b. Refer to Field Team ☐
c. Denial [x]
d. Agree with Field Team [x]
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another examination ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ Bureau office

10. Remarks: (Use back of page if necessary)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 29 1957

DATE		CODE
10/29	gb	220
11-1	2B	130
11-4	~~[illegible]~~	~~220~~

October 25, 1957

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

Re: Docket No. DMEA-4767 (Uranium)
M.P.C. Mining Company
Dandy, et al. claims
Ferry County, Washington

Dear Mr. Selfridge:

Enclosed are three copies of memorandum examination report on the subject property prepared by Howard F. Albee, Geologist, U. S. Geological Survey, and G. G. Waddell, Mining Engineer, U. S. Bureau of Mines.

Weak radioactivity is widespread in an area of schistose, granitic, and pegmatitic rocks. Random occurrences of sparsely distributed uranium minerals, principally autunite or uranophane, are found in joints and fractures in garnetiferous schist and granite, but no structure or area that might be a favorable target for exploration was found.

Ten samples taken by the examiners ranged in grade from 0.009 to 0.091 percent $_cU_3O_8$, while 11 samples taken by the AEC ranged from 0.012 to 0.132 percent $_eU_3O_8$. Three of the AEC samples were assayed chemically and indicate that the uranium is in equilibrium, and the assays of the two groups of samples are in close agreement.

Albee and Waddell conclude that the chance of making a significant discovery is poor and recommend that the application be denied.

The Field Team concurs with this conclusion and recommendation.

By Field Team, Region I

Thomas E Howard
for Wing G. Agnew, Acting Exec. Officer
U. S. Bureau of Mines

Donald R. MacLaren
Donald R. MacLaren, Acting Member
U. S. Geological Survey

Enclosures

cc: USBM (2)
USGS (SRO)
Albee
AEC (Spokane)
AEC (SLC)

Reviewed by
DMEA OPERATING COMMITTEE
11-1-57
(date)

ON-SITE EXAM

DMEA

OFFICIAL FILE COPY DMEA RECEIVED OCT 29 1957		
DATE	INITIALS	CODE
11/1	HB	130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

October 17, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: Howard F. Albee, Geologist, U. S. Geological Survey and
G. G. Waddell, Mining Engineer, U. S. Bureau of Mines

Subject: Field Examination Report, Docket No. DMEA-4767 (Uranium), M.P.C. Mining Company, Dandy, et al. claims, Ferry County, Washington

INTRODUCTION AND SUMMARY

The M.P.C. Mining Company, Malo, Washington, applied June 20, 1957, for DMEA assistance to explore for uranium on claims either owned or leased by them in the Curlew Mining District, Ferry County, Washington. The proposed project consists of 500 feet of drifting, 2,000 feet of an unspecified type of drilling, 500 hours of bulldozer work, and 1,000 hours of H.D. 5 Allis-Chalmers loader work at a total cost of $67,200.

The property was examined on August 13 and 14, 1957, by Howard F. Albee, Geologist, U. S. Geological Survey, and G. G. Waddell, Mining Engineer, U. S. Bureau of Mines, accompanied by S. J. Kung, a mining engineer and trainee from Formosa, and Messrs. J. D. Morse and W. J. Price, representing the applicant.

Personnel of the Spokane office, U. S. Atomic Energy Commission, were consulted concerning the property. They felt that the property had little merit and, after the authors examined the property, they furnished assay results which were in the same very low range as those of the authors.

The dominant rocks seen on the property consist of biotite schist with granitic facies in the northern part and dikes and irregular masses of pegmatite in the southern part of the area. Very weak radioactivity is widespread and is detected from sparse, thin films and flakes of uranium minerals on fracture surfaces and, in places, from garnetiferous schist and granite.

Reviewed by
DMEA OPERATING COMMITTEE

11/1-57
(date)

No evidence was seen to indicate a target for exploration. Random occurrences of sparsely distributed uranium minerals were found on joint and fracture surfaces but they showed no preference for the weaker or stronger structures. Anomalous radioactivity away from places containing visible uranium minerals were found only in garnet-bearing schistose and granitic rocks. These anomalies were small and were detectable only at some places within the garnet-bearing material.

Ten samples were taken from rocks that showed the highest radioactivity. The assays ranged from 0.009 to 0.091 percent U_3O_8 and averaged arithmetically 0.045 percent U_3O_8.

CONCLUSIONS AND RECOMMENDATIONS

The property covers nearly one and a half square miles and, although anomalous radioactivity is widespread, no evidence was seen across the area to indicate a target for exploration.

The applicant has done considerable work comprising road building and bulldozing, and a small amount of wagon drilling has been done. No mapping has been done to show possible trends or favorable structures, should any exist. The wagon drill holes did not give any results that could be possitive; therefore, no detail is given in this report.

The examiners conclude that the chance of finding significant concentrations of uranium is poor and they recommend that the application be denied.

LOCATION AND ACCESSIBILITY

The property is about 9 miles southeast of Malo, Washington, which is about 130 miles northwest of Spokane (Fig. 1). From Malo the property is reached by traveling about 3 miles east up the north fork of St. Peters Creek on a graded dirt road, thence about 6 miles south and east up a steep, unimproved road over the top of Mount Leona. About the last mile of the road to the property and all of the roads on the property require a 4-wheel drive vehicle.

The property is not accessible in the winter due to heavy snowfall, and heavy fall and spring rains would make the roads impassable for long periods of time.

COMPETENCY OF APPLICANT

The M.P.C. Mining Company, a partnership, comprises six men, one of whom is in the contracting and construction business. One partner, Mr. Price, has done considerable prospecting, but none is experienced in mining or exploration. Judging from the roads that have been built and other bulldozer and powder work, however, the applicant appears competent to carry out surface exploration if it were supervised by a geologist or engineer.

PROPERTY

The property, as defined in the application, consists of 24 unpatented lode mining claims owned by the company and 22 unpatented lode mining claims leased by the company in secs. 14, 22, 23, and 26, T. 38 N., R. 34 E. According to the application, the claims are recorded in the office of the County Recorder, Republic, Ferry County, Washington, as follows:

Claims owned	Book	File No.
Dandy	13	117649
Jim Dandy	13	117644
Rusty Bucket	13	117648
Eagle	13	117643
Eureka	13	117681
Lucky Boy No. 11	13	117647
Lucky Boy No. 12	13	117645
Tamarack No. 1	13	117646
Tamarack No. 2	13	117682
T. & L.	13	117784
Capper	13	118001
Bridgett	13	118029
Judy-Anne	13	118129
Julie-Jean	13	118130
Joni-Frank	13	118128
David V.	13	118329
M. C. M.	13	118328
Jay Dee M.	13	118306
Yellow Jacket	13	121940
Crazy Creek	13	122824
Meteor No. 1	14	124831
Meteor No. 2	14	124832
Meteor No. 3	14	124833
Queen Anne	13	117402

Claims leased	Book	File No.
Lone Wolf	13	117472
Paydirt No. 1	13	117474
Paydirt No. 2	13	117475
Paydirt No. 3	13	117473
Hangover	13	117459
Sleepless Night	13	117463
Lucky Pete	13	117461
Tip Top	13	117621
Second Chance	12	117029
Triple XXX	12	117031
Three RRR	12	118357
Give Up	13	117462
Windfall	13	117902
Left Over	13	118830
Bushed	13	117680
Linx	13	118832
Daffy	13	118831
H. & R. No. 1	13	117434
H. & R. No. 2	13	117435
Birthday	13	117726
Leona Special	13	117458
The Lucky Evelyn	13	117635

DESCRIPTION OF THE PROPERTY

Most of the claims lie on the eastern slopes of Mount Leona at altitudes that range from about 5,000 feet to nearly 6,500 feet. The slopes are precipitous in places and are covered with a heavy growth of fir trees, larch trees, and underbrush.

The company has constructed several miles of road and bulldozed at least 12 open cuts. Exposures are scarce but at two or three outcrops the company has blasted cuts in the rock. No facilities other than roads exist on the property.

GEOLOGY

Because of extensive overburden and a dense growth of trees and brush, exposures are scarce. However, the applicant has dozed a number of cuts, about 12 of which were examined. The rocks underlying the property are dominantly biotite schist that, in places,

contains granitic facies (quartz diorite?) and, in other places, contains dikes and irregular masses of pegmatite.

The pegmatite-schist contacts commonly strike northwesterly and dip to the northeast. The bedding and foliation of the schist also strikes northwesterly but dips to the southwest. Joints and fractures are common but no preference by the uranium minerals for the stronger or weaker structures was noted. At the exposures where uranium minerals are present the surfaces of many fractures are barren, whereas others have sparse flakes or thin coatings of autunite or uranophane.

The few faults and shear zones seen either contained no uranium minerals or showed no greater radioactivity than at places where there was no faulting or shearing. Radioactivity anomalies across the property ranged generally from 2 to 3 times background.

In the southern part of the property the anomalous radioactivity came mostly from pegmatites; in the northern part it came mostly from the granitic rock; and near the center of the property it came from both pegmatite and schist. The schist and granitic rocks, where anomalously radioactive, have more than accessory amounts of small reddish-brown garnets, though the garnet-bearing rocks are not everywhere radioactive.

Ten samples were cut where the radioactivity was greatest (pl. 1). The assay results are as follows:

Sample No.	Sample length (ft.)	% U_3O_8
CCW-13	8.5	0.009
14	4.5	0.024
15	7.0	0.077
16	6.0	0.040
17	3.1	0.047
18	8.0	0.032
19	3.0	0.042
20	3.5	0.030
21	1.2	0.091
22	2.0	0.021

The following assays, furnished by the Atomic Energy Commission, are from samples taken in the same area. The exact location of the samples is not available and therefore they are not shown on plate 1.

AEC surface samples

Sample No.	Width (ft.)	Description	% eU_3O_8	% cU_3O_8
442 A	1.8	Chip across schist and peg.	0.03	
442 B	1.6	Chip across pegmatite	0.032	
442 C	1.7	Chip across pegmatite	0.067	
459 D	2.0	Chip across pegmatite	0.132	
444	3.2	Chip across pegmatite, schist and biotite	0.08	
459 A	5.0	Chip across gr.-gneiss	0.016	
459 B	5.0	Chip across gr.-gneiss	0.029	
459 C	3.5	Chip across gr.-gneiss	0.095	
477 A	2.5	Chip across gr.-gneiss	0.012	0.012
477 B	2.0	Chip across gr.-gneiss	0.015	0.015
477 C	1.33	Chip across medium gr. granite	0.033	0.033

Drill hole samples assayed by AEC

Sample No.	Description	% eU_3O_8
308	DH No. 21, 4'-8'	0.04
308 A	do. , 16'-20'	0.03
308 B	do. , 20'-24'	0.07
308 C	do. , 40'-44'	0.03
308 D	DH No. 4, 4'-8'	0.17
308 E	do. , 8'-12'	0.06
307	Sample cut in pegmatite by DLH	0.20

PAST OPERATION

The company first started work on the property in 1955 and, except for winter months, continued the work into the summer of 1957. The work has consisted of several miles of access roads and about 12 bulldozer cuts, some of which were blasted. An estimated 80 tons of rock has been stockpiled near Malo. The AEC has sampled the stockpile and the assay results show it to contain less than 0.1 percent U_3O_8. No mine workings exist on the property and no ore has been shipped.

APPLICANT'S PROPOSED PROGRAM

The applicant submitted the following schedule of estimated costs for a program.

Independent contracts - 2-year period

500 ft. drift at $14/ft.	$ 7,000.00	
500 hours dozer work at $12/hr.	6,000.00	$13,000.00

Work to be done by operator - 2-year period

2,000 ft. short-hole drilling at $1.50/ft.	$ 3,000.00	
1,000 hrs. ED-5 loader, 1-yd. cap. at $10/hr.	10,000.00	
Dynamite	2,000.00	
Geologist	2,500.00	
Labor	30,000.00	
Use of 1 Jeep	1,200.00	
1 4-wheel drive International	2,500.00	
House rent and office space	1,000.00	
Contingencies	2,000.00	54,200.00
Grand total		$67,200.00

The applicant proposes to furnish his share of the cost by the use of the following equipment:

1 ED Allis Chalmers loader	$11,000.00
1 LeRoi Tract-air Wagon drill	6,500.00
1 4-wheel drive unit	3,230.00
1 Pioneer diamond drill, portable	1,200.00
Total	$21,930.00

Inasmuch as no discussion or maps accompanied the proposed program and the representatives were vague when questioned in the field, the location of the proposed work is not known. As it was evident in the field that approval of any program would not be recommended, the subject was not pursued.

Drifting and drilling would be blind work as there is no geologic evidence of any target on which to base a program.

Attachments 2

Distribution:
DMEA (3) ✓ AEC, Spokane USGS(SRO)
USEM (5) AEC, Salt Lake Docket
Albee

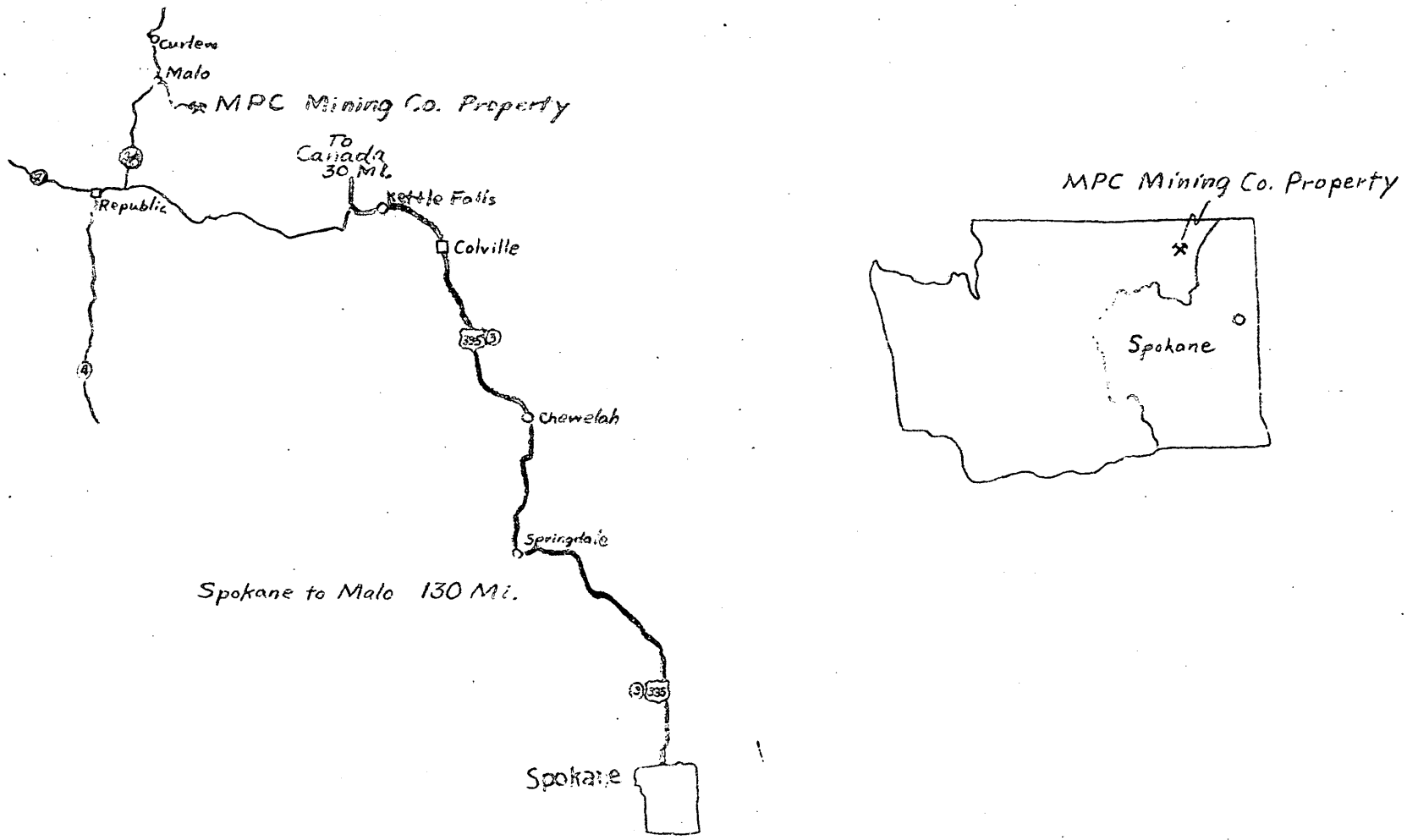


Figure 1. Location map, MPC Mining Company, Ferry County, Washington

[illegible] Sibee, October, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 29 1957

DATE	INITIALS	CODE

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/27	Murphy	700
6/27	Ellis	700
6/28	Selbridge	130
6/28	Hayes	130
6/28	Robison	130
"	Johnson	110
"	Mittenbergy	1098
7/1	C	226
		700

JUN 28 1957

M. P. C. Mining Company, Partnership

Malo, Washington

Re: Docket No. DMEA-4767 (Uranium)
Dandy, et al., Claims
Ferry County, Washington

Gentlemen:

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

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane, Washington

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

Sincerely yours,

E. O. Mittenbergy
(acting)

Administrator

FMMurphy/izm 6-27-57
cc to: Mr. Murphy
Admr.'s Reading File
DMEA FT Reg. I NW Dist. (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/27	Murphy	700
6/27	Ellis	700
6/28	GCS	130
6/28	Johnson	110
	Matteoli	100
		2220
	(Uranium)	700

JUN 28 1957

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane, Washington

Re: Docket No. DMEA-4767
M.P.C. Mining Company
Dandy, et al., Claims
Ferry County, Washington

Dear Mr. Weissenborn:

The captioned application is referred to Region I Field Team for investigation, a field examination, if deened advisable, and recommendations.

Enclosed are copies of memoranda, dated June 24 and 25, 1957, by N. E. Nelson, USGS, and James Paone, USBM, respectively, relating to the application. Also enclosed is an extra copy of the application for the use of the Field Team.

The application lacks a map showing the location of the proposed work. However, it appears that the considerable amount of preliminary exploration work has exposed a number of possible favorable areas. Item 6(b) of the Applicant's proposed work seems to contemplate exploitation of the known ore and any new ore found.

In the event the Field Team believes a project to explore the subject claims is warranted, it should advise the Applicant that we will require a set (6 copies) of form MF-205, signed by each of the five groups of owners.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures
APPROVED:

P. F. Yopes
Member, Bureau of Mines

N. E. Nelson
Member, Geological Survey

FMMurphy/izm 6027-57
cc to: Mr. Murphy
Admr.*s Reading File
Operating Committee
THKiilsgaard, 5224

8623

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 26 1957

DATE	INITIALS	CODE
6/26	C	220
"	Ellis	700
	Murphy	
	Comment	
	Complete	

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

Date June 25, 1957

DMEA Docket No. 4767
DMEA Contract No.
Commodity Uranium
Name of applicant MPC Mining Company
Name of property
Location of property Ferry County, Washington
Estimated cost of project $67,200

Memorandum

To: Ernest William Ellis, DMEA Member ✓
Uranium Commodity Committee

Via: James Paone, Bureau of Mines Member JP
Uranium Commodity Committee

Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: 6/21/57 2. Date received by reviewer: 6/24/57

3. Other reports on this property known to reviewer: Yes ☐ No ☐

4. Other reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Factors meeting special consideration:
- a. Location ☐
- b. Ownership ☐
- c. Evidence of mineralization ☒
- d. Geology ☒
- e. Proposed exploration method ☒
- f. Alternate exploration method ☐
- g. Costs ☐
- h. _____ ☐

9. Action advised:
- a. Obtain information from applicant ☒
- b. Refer to Field Team ☐
- c. Denial ☐
- d. Agree with Field Team ☐
  - i. Consult with Mr. _____ at _____ AEC office.
- e. Disagree with Field Team ☐
- f. Suggest alternate plan ☐
- g. Request another examination ☐
- h. Approval ☐

10. Remarks: (Use back of page if necessary) need more information, geologic, exploration, etc.

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 26 1957

DATE	INITIALS	CODE
6/25	C	220
		700
"	Ellis	

IN REPLY REFER TO:

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

June 24, 1957
Re: DMEA 4767
M. P. C. Mining Company
M. P. C. Group
Ferry County, Washington
$67,200 - Uranium

Memorandum

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

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

Subject: Review of application

The applicant (a partnership) requests assistance in exploring by bulldozing and drifting a zone, said to contain surface outcroppings. The existence of much low grade has been established and several locations showing high grade are claimed.

The application lacks a map showing where the work would be done and the cost estimate would appear to include some costs of mining.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

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

June 21, 1957

Mr. Joseph D. Morse,
M. P. O. Mining Company,
Malo, Washington.

Subject: DMEA 4767

Dear Mr. Morse:

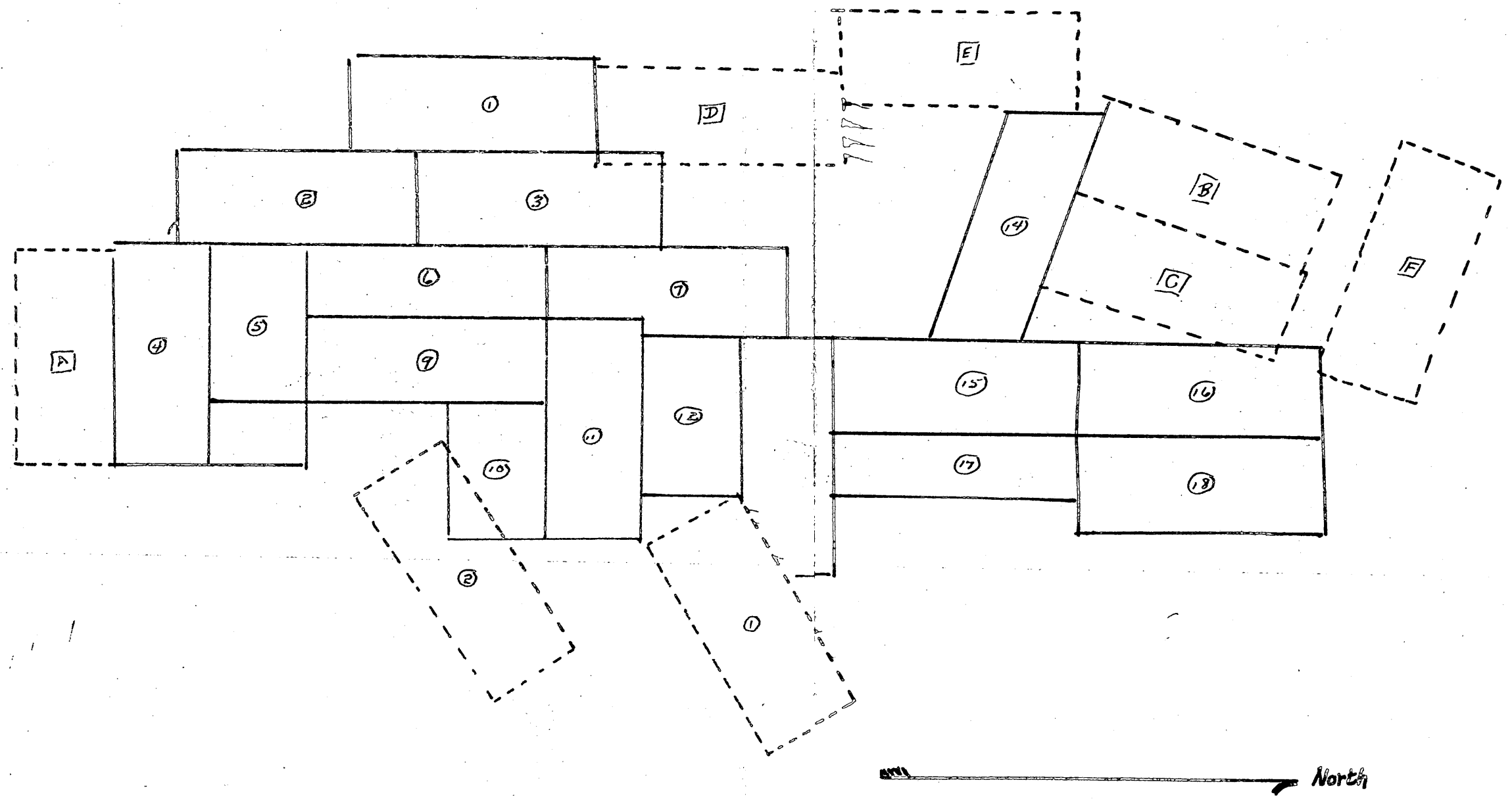
Your application for exploration assistance, dated June 20, 1957, submitted to our office at Washington, D.C., has been assigned Docket Number DMEA 4767 and referred to the Rare and Miscellaneous Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region I-NW

M.P.C. Mining Claims ---- 1/8" = 100 Ft.



1. M. G. M.
2. Jay Dee M
3. Lucky Boy #11
4. Gapper
5. T & L
6. Rusty Bucket
7. Bridgett
8. David V.
9. Dandy
10. Jim Dandy
11. Lucky Boy #12
12. Eagle
13. Eureka
14. Joni Frank
15. Tamarack #1
16. Julie Jean
17. Tamarack #2
18. Judy-Anne

1. H & R #1
2. H & R #2

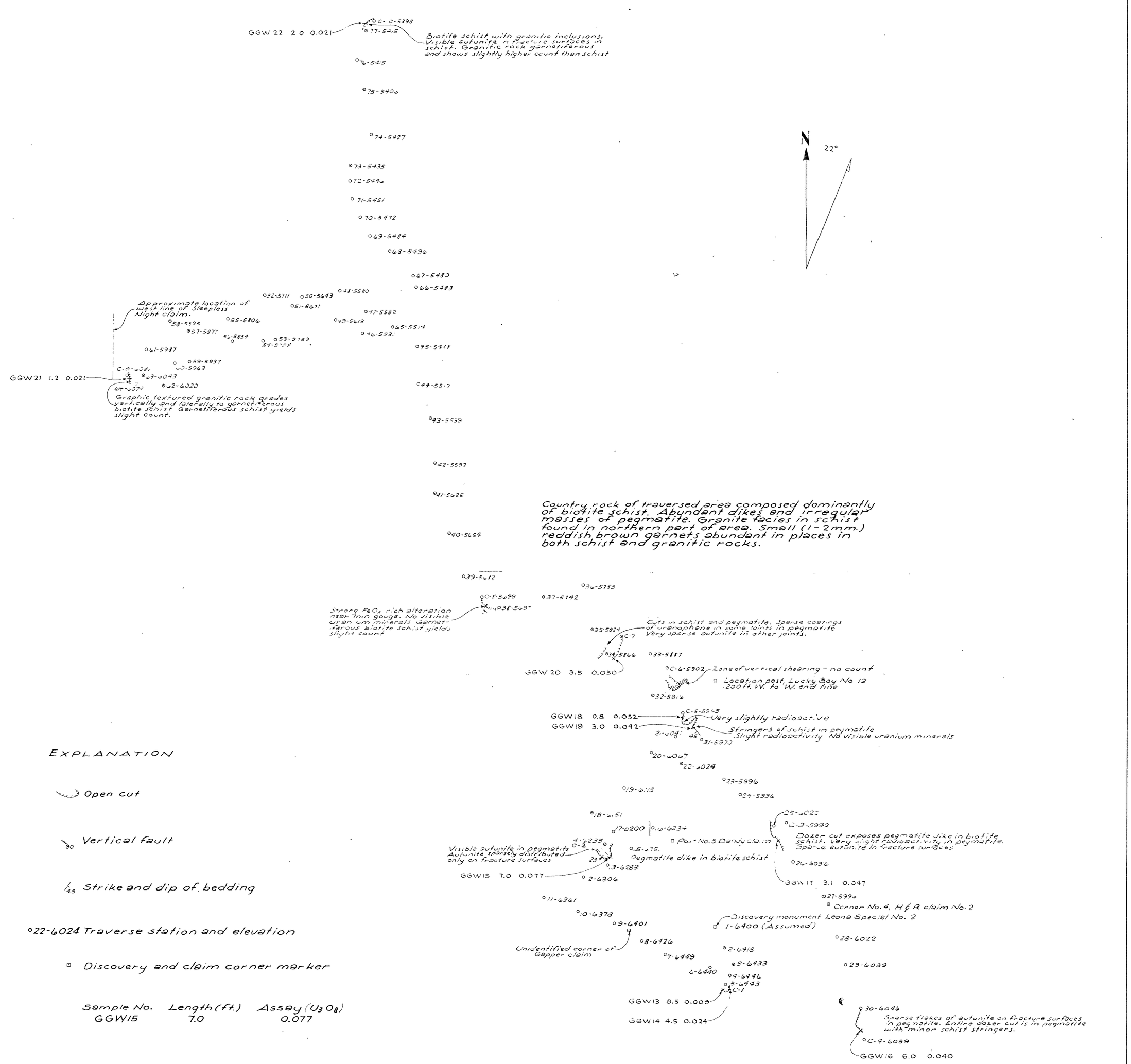
/A/ Tip Top
/B/ Lucky Pete
/C/ Windfall
/D/ Hangover
/E/ Sleepless Night
/F/ Give Up

These are the original claims that we started working with, in the summer of 1955. All of the other claims lay in and around and in close proximity to these claims shown here. The claims within the solid lines are our own, the others the first claims leased.

UNITED STATES
DEPARTMENT OF THE INTERIOR

PREPARED FOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
APPLICATION REPORT

DMEA DOCKET NO. 4767



EXPLANATION

Open cut

Vertical fault

Strike and dip of bedding

22-6024 Traverse station and elevation

Discovery and claim corner marker

Sample No.	Length (ft.)	Assay (U_3O_8)
GGW15	7.0	0.077

TAPE AND BRUNTON TRAVERSE BY H F ALBEE, USGS
SAMPLES BY G.G NADDELL, USBM

MAP SHOWING TRAVERSE STATIONS, ELEVATIONS, ASSAY DATA AND GEOLOGIC NOTES ON ROCK EXPOSED IN BULLDOZER CUTS

M.P.C. MINING COMPANY

FERRY COUNTY, WASHINGTON

300 0 300 600 Feet

AUG. 1957

PLATE I