DMEA 3054

DOCKET INDEX

ACTION DOCUMENTS

1	APPLICATION		DATE RECEIVED	6/1/53
2	CONTRACT		DATE	9/21/53
3	TERMINATION AGREEMENT		DATE	7/6/54
4	CERTIFICATION		DATE	
5	AUDIT REPORT		DATE	
6	AMENDMENTS - NUMBERS	1	DATE	4/2/54

DOCKET COPY

TERMINATION OF EXPLORATION PROJECT CONTRACT BY AGREEMENT
AFTER COMMENCEMENT BUT BEFORE COMPLETION OF THE WORK

Rubin 8/3/54
Chamberlin
F.L. Vaughn
Elks

It is agreed this 6th day of July, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Urova Company
620 South Saddle Creek Road
Omaha, Nebraska
, hereinafter called the "Operator," parties to that certain Exploration Project Contract I-dm-E 603, Docket No. DMEA- 3054, dated Sept. 21, 1953, that the said contract shall be and is hereby terminated as of the first date above written.

Any work prosecuted or costs incurred by the Operator after the date first above written shall be for the sole account of the Operator, except for (a) such necessary and reasonable costs and expenses as may be incurred in preserving and disposing of any facilities, buildings, fixtures, equipment, or other items, to the cost of which the Government has contributed and in which the Government has an equity, and (b) the costs of any reports, accounts, and winding-up and settlement actions provided for in the contract.

The undersigned Operator hereby releases and agrees to save harmless the Government from all claims and demands under or arising out of said Exploration Project Contract, except as herein expressly otherwise provided.

Witness the following signatures as of the day and year first above written.

UNITED STATES OF AMERICA

By [signature]

Urova Company
(Operator)

By [signature] Sec

Amendment No. 1

Docket 3054, Contract Idm E-603, dated September 21, 1953, between the United States of America and Urova Company is hereby amended as follows:

Rutin 5/4/54

Completion date is extended to June 21, 1954.

This amendment shall not be construed to increase the estimated cost of the project, the aggregate total amount which the Government may pay, or the percentage of the costs which the Government may pay, under the provisions of Article 4 of the Contract form.

Dated April 2, 1954

UNITED STATES OF AMERICA

By A. B. Needham
A. B. NEEDHAM
Executive Officer, Field Team
Region V

UROVA COMPANY

By W. R. Schaufler Pres

Work on Stage one of this contract was completed November 15, 1953.

Operator requested to furnish analysis data in order that field team could determine feasibility of proceeding with Stage 2. This determination being made, and if approved this amendment would provide sufficient time to complete contemplated work under Stage 2.

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 3054

COMMODITY Uranium
Idm-E 603
Docket Copy

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

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 21st day of September, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Urova Company, a corporation duly organized and existing under and by virtue of the laws of the State of Nebraska
620 South Saddle Creek Road
Omaha, Nebraska

hereinafter called the "Operator," as follows: and as set forth in Annexes I and II attached hereto and made a part hereof:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Dakota, County of Custer, described as the Lakota Lode Group of claims, consisting of the property described in Annex I and shown on map Exhibit "B" attached hereto and made a part hereof,

the Operator represents and undertakes:[4]

(*a*) ~~That the Operator is in possession and entitled to possession, and the Owner's Consent to Lien is attached.~~

(*b*) That the Operator is a lessee, in possession and entitled to possession, and the Owner's Consent to Lien is attached.

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within ____ days from the date of this contract shall commence work on a project of exploration for[5] Uranium

in or upon the described land; and shall bring the project to completion within a period of three (3) months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 90 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $8,802.00, which is 90 percent of $9,780.00 the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows: See Annex II, substituted for that part of 6(a) preceding the colon:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts. See also Article 9.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided*, that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* The repayment provisions of Article 6 shall apply also to any amounts received as bonuses, premiums, or allowances, in addition to the sale price or market value of the minerals.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

UROVA COMPANY
(Operator)

By W. R. Schaefer Pres

By Frank E. Johnson
ACTING Administrator, Defense Minerals Exploration Administration
Robert Chandler

I, J. H. IMIG, certify that I am the secretary of the corporation named as Operator herein; that W. R. SCHAEFER, who signed this contract on behalf of the Operator, was then PRESIDENT of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

J. H. Imig [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

EXPLORATION PROJECT CONTRACT
UROVA COMPANY
DOCKET NO. DMEA-3054

ANNEX I

The land referred to in Article 2 is located in sections 23 and 26, Township 6 South, Range 1 East, Black Hills B & M, Custer County, and consists of the following unpatented lode mining claims:

Lakota	Lode	No.	8
"	"	"	9
"	"	"	10
"	"	"	11
"	"	"	12
"	"	"	13
"	"	"	14
"	"	"	15
"	"	"	16
"	"	"	17
"	"	"	18

All the claims are recorded with the Register of Deeds at Custer, Custer County, South Dakota, in Location Book No. 17 at pages 522, 523, 524, 541, 542, 543, 545, and 551.

EXPLORATION PROJECT CONTRACT
UROVA COMPANY
DOCKET NO. DMEA-3054

ANNEX II

The following provisions are in lieu of all of paragraph (a) of Article 6 which precedes the colon:

If at any time the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the final report and final account required by the exploration project contract, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development. The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land which is the subject of the exploration project contract, as follows: (1) Regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, as follows:

EXPLORATION PROJECT CONTRACT
UROVA COMPANY
DOCKET NO. DMEA-3054

EXHIBIT "A"

Description of the Work

The purpose of the work is to explore, for uranium-bearing ore, two mineralized parallel horizons of Dakota Sandstone that are approximately 30 feet apart. The exploration shall be done by drilling holes from the surface through these mineralized horizons with a wagon-mounted percussion drill to an average hole depth of 35 feet.

This work is to be done in two stages. If, in the opinion of the Government, the results of Stage I warrant it, and the Government approves it in writing in advance, all or part of the work outlined in Stage II may be done.

The drilling is to be done in Stage I, as indicated in the areas shown on the attached map, "Exhibit 'B', Plane Table Survey—Claims on Pass Creek Mesa, Lakota Prospecting Co., Hot Springs, S. Dak., Urova Co. (Application), Omaha, Neb.," unless modified with the prior written consent of the Government; and in Stage II, as subsequently indicated by the Government.

Drill sites and approach roads are to be prepared with a Model D-8 Caterpillar tractor with angledozer or an equivalent sized unit used not in excess of 8 hours in each stage.

Not in excess of 40 sample analyses in Stage I and 50 in Stage II shall be made, and the Operator shall furnish the Government the quantity of samples specified by it.

All drill-hole diameters shall be not less than 2½ inches at the bottom of each hole. The drill-hole depths, the method of all sampling, the method of sample determinations, and the method of recovering drill cuttings are all subject to the approval of the Government.

The drilling to be done consists of the following:

Stage I

Mining Claims	Number of Drill Holes	Approximate Average Drill-Hole Depth (Ft.)	Grid Spacing (Ft.)	Drill-Hole Footage
Lakota Lode No. 15	28	35	100	980
Lakota Lode No. 12	29	35	100	1015
Lakota Lode No. 11	8	35	100	280
Lakota Lode No. 10	23	35	100	805
Lakota Lode No. 8	12	35	100	420
Total	100			3500

Stage II

Not to exceed 5000 feet of wagon drilling shall be performed; a part of this may be offset holes surrounding holes drilled in Stage I which contain encouraging mineralization, but no drill hole shall be closer than 50 feet to any other drill hole.

Agreed Unit Costs

Stage I

3500 feet of wagon-drill hole @ $1.09/ft.	$3,815.00	
40 sample analyses @ $3.50/analysis 1/	140.00	
8 hours of drill-site and approach-road preparation with tractor-dozer @ $12.50/hr.	100.00	
Total Stage I		$4,055.00

1/ Includes all freight costs.

Stage II

5000 feet of wagon-drill hole @ $1.09/ft.	$5,450.00	
50 sample analyses @ $3.50/analysis 1/	175.00	
8 hours of drill-site and approach-road preparation with tractor-dozer @ $12.50/hr.	100.00	
Total Stage II		$5,725.00
Total Agreed Unit Cost of Project		$9,780.00
Government Participation at 90%		$8,802.00

1/ Includes all freight costs.

MF-203
(Revised July 1, 1953)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Fall River and Custer, described as follows:1/

In an amended lease dated August 19, 1953, and recorded in Book 33 of Misc. on page 311 of the official records of the Register of Deeds of Fall River County, South Dakota, and in Book 18 of Misc. on page 363 of the official records of the Register of Deeds of Custer County, South Dakota.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Urova Co.

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production (as set forth on the reverse side hereof) and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof, there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom, until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

4. Changes and added provisions None

Interior—Duplicating Section, Washington, D. C.

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by the contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, as follows:

(a) One and one-half ($1\frac{1}{2}$) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(b) One and one-half ($1\frac{1}{2}$) percent of any such net amounts, plus one-half ($\frac{1}{2}$) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half ($1\frac{1}{2}$) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

c. Definitions.--As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3054

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

Exploration Assistance

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Copies to USBM, USGS and Retained In Region V

Routing Slip

To:	Code 700, Rm. 1640	Date	6/2/53
To:	Mr. Mellendorf	Date	6/3/53
To:	Code 700 1640	Date	6-3-53
To:	Oper Com	Date	9-18-53
To:	Code 700	Date	9-22-53
To:	Oper Com	Date	8-6-54
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
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To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

MORRIS S. SCHWARTZ

ATTORNEY AT LAW - COMMERCE COUNSEL

also Del 3-2000 X 49

1-

DISTRICT 4636

318 UNION TRUST BUILDING
15TH AND H STREETS, N. W.
WASHINGTON 5, D. C.

700

Surname copy

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

FEB 11 1955

F L Knouse
Ellis
Chandler
Selfridge
B Johnson

Mr. W. R. Schaefer, President
Urova Company
620 South Saddle Creek Road
Omaha, Nebraska

Re: Docket No. DMEA-3054 (Uranium)
Contract No. Idm-E603
Urova Company
Lakota Lode Group of claims
Custer County, South Dakota

Dear Mr. Schaefer:

This is with reference to the subject Exploration Contract between you and the Government.

It is not our intention to make a certification of discovery or development which would create a lien against the subject property. We are, therefore, closing our books and records with respect to this project. Your attention is called, however, to Article 5 (d) of the Contract which requires the Operator to "keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract".

We regret that the exploration work performed did not result in a certification of discovery or development. Your participation in the exploration program, however, is sincerely appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

FLKnouse/gla
2-8-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA

Code 700
Mr. Knouse
Contract Adm. & Audit Division
DMEA FT, Region III (2)

R.C.L.

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

224 New Customhouse
Denver 2, Colorado

January 26, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket No. 3054 (Uranium), Contract Idm-E603, Urova Company, Lakota Lode group of claims, Custer County, South Dakota

Reference is made to letter of January 13, 1955 from the Chairman of the Operating Committee concerning the requirement of an Operator's final report for work performed under the subject DMEA contract.

This matter was referred to E. O. Binyon of the South Dakota station. Enclosed are two copies of Mr. Binyon's memorandum of January 24, 1955 in which he recommends that the requirement of a final report from the Operator be waived.

We concur in this recommendation.

W. M. Traver

Enclosure

RDB:pw

Rapid City Experiment Station
School of Mines Campus
Rapid City, South Dakota

January 24, 1955

Memorandum

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

From: E. O. Binyon

Subject: Docket DMFA 3054 (Uranium), Contract Idm-E603, Urova Co., Lakota Lode Claim Group, Custer County, S. Dak., Operator's Final Report

This is in reply to your memorandum of January 17 concerning the subject.

I believe the final report (a joint U.S.G.S. and Bureau report) submitted from this office includes all available data and an operator's report would not add any additional information on the property or on the results of the exploratory work.

It is recommended that the operator's final report be waived.

E. O. Binyon

cc: W. M. Traver (2)
N. P. Cuppels
files

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

DOCKET SURNAME
700

F.L. Knouse
Selfridge
Hedges
Kiilsgaard

JAN 13 1955

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

Re: Docket No. DMEA-3054 (Uranium)
Contract No. Idm-E603
Urova Company
Lakota Lode Group of claims
Custer County, South Dakota

Dear Mr. King:

This is with reference to our letter of September 27, 1954, to Mr. A. B. Needham regarding his recommendation to either waive or require the subject Operator to furnish a final report. In Mr. Needham's response of October 27 he did not state whether the Operator's final report should be waived.

In order to clear the record, please furnish your recommendation concerning this question.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (SHB)

APPROVED:

J. H. Hedges
Member, Bureau of Mines (SHB)

Thor H. Kiilsgaard
Member, Geological Survey (SHB)

FLKnouse/foc/gla
(1/11/55)
1/12/55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Knouse

R.C.L.

Docket Copy

Ellis

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

Project Summary Report

By: A. G. Keating November 17, 1954

1. Docket No. DMEA-3054 (Uranium)
Contract No. Idm-E603

Operator - Urova Co., a corporation
620 South Saddle Creek Road
Omaha, Nebraska

Property - Lakota Lode Claims
Custer County, South Dakota

Operator's property rights - Lessee
Option to lease dated 11-3-52.

Amended Mining lease Agreement
dated 8-19-53.

Owner's Consent to Lien dated
8-27-53.

2. Contract - dated 9-21-53. Form MF-200A -(February 1952)
project to be completed in 3 months

Work authorized -

Stage I

3500 feet of wagon-drill hole @ $1.09/ft	$3,815.00
40 Sample analyses @ $3.50 each, including all freight costs	140.00
8 hours of drill-site and approach-road preparation with tractor-dozer @ $12.50/hr.	100.00
Total cost of Stage I	$4,055.00

Stage II

5000 feet of wagon-drill hole @ $1.09/ft.	$5,450.00
50 Sample analyses @ $3.50 each including all freight costs	175.00
8 hours of drill-site and approach-road preparation with tractor-dozer @ $12.50/hr.	100.00
Total cost of Stage II	$5,725.00

Total Agreed Unit Cost of Project	$9,780.00
Government participation at 90 percent	$8,802.00

Amendments -

No. 1, dated 4-2-54. Extends completion date 9 months to June 21, 1954.

Work completed:

Operator's last report through March 1954.

Stage I - Wagon drilling - 3398 ft.	@ $109/ft.	$3,703.82
Road and site preparation 16 hr.	@ $12.50/hr.	200.00
Analyses 31 samples	@ 2.50 ea.	108.50
Total costs		$4,012.32

Termination Agreement by mutual consent - 7-6-54

3. Audit Certificate - 9-14-54

Total cost as billed by Contractor	$4,012.32
Exceptions - bulldozer rental per contract	100.00
Total cost accepted	$3,912.32
Government participation at 90 percent	$3,521.09

4. Certification

Notice to the Operator that project will not be certified is being withheld due to delay in receiving Operator's final report. See file memo 11-10-21.

Ore Estimates

No estimates of ore reserve can be made since no deposits of ore grade were disclosed by the project work, although uranium-bearing rock was found in several instances.

There was no production and therefore no royalties due the Government.

5. Comments

The project was not operated in an entirely satisfactory manner. Sampling was not carried out at the prescribed 2-foot intervals. Delay between completion and probing of the holes resulted in their not being tested to full depth. Except that drilling footage per shift was somewhat low, the operation was fairly efficient.

5. Comments (Cont'd)

Geological premises: Uranium-bearing minerals or radioactivity anomalies were found to occur in sandy and clayey beds near the middle of the Dakota sandstone. Uranium-bearing rock had been exposed on the surface in trenches and shallow holes excavated by the Operator.

The Operator reported that samples from shallow workings on Lakota Lode Claim No. 17 returned values of 0.15 and 1.06 U_3O_8 and samples from Lakota Lode Claim No. 8 showed values of 0.08 and 0.05 U_3O_8.

Concentrations of uranium minerals appeared to follow northeast and northwest trends probably related to jointing. Possible ore bodies were believed to be small and near the surface and therefore the shallow depth of the mineralized rock indicated that even small ore bodies might be mined successfully.

Mineralization apparently was confined to one or two horizons about 30 feet apart vertically. The principal minerals were carnotite with some autunite and schrockingerite. The beds were relatively shallow and out-cropped as dip slopes.

It appeared that the mineralization had a definite trend and that wagon drilling might disclose ore deposits in one or more horizons. In any event the geological data obtained from the drilling would be of value in establishing criteria for determining control of depositions.

About five tons of ore of 0.15 U_3O_8 grade had been shipped prior to the contract from workings on the Lakota Lode Claim No. 11. This shipment was evidently obtained by careful sortings from several small mineralized pods.

The examining engineers concluded that the numerous radioactive anomalies showing on the project and nearby areas indicated that deposits of ore grade might be found.

Under the exploration program 100 holes were drilled over an area of five claims, the holes averaging about 35 feet in depth.

Although no minable concentrations of ore were disclosed by the drilling the Field Team believed that effective search for such deposits would require detailed study of the relation between mineralized material and geological structures and until such study was made, additional exploration under the contract or drilling to greater depths was unwarranted.

A. G. Keating
A. G. Keating

Ellis

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

November 10, 1954

Memorandum

To: File

From: A. G. Keating
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-3054 (Uranium)
Contract No. Idm-E603, dated September 21, 1953
Urova Company
Lakota Lode claims
Custer County, South Dakota

This memo is in reference to the delay in receiving the Operator's final report and, therefore, final letter to him that the project will not be certified is being withheld. Washington commodity members concur in decision that project does not warrant certification.

7-6-54 - Termination notice sent to Operator.
9-8-54 - Final Field Team report received.
9-14-54 - Final Audit - final payments to Operator authorized.

Operator has submitted assay data and probe results, but no final report. The Field Team reports that it is doubtful if a final report from the Operator would include any data not included in the Field Team's report, but they do not expressly waive a final report from the Operator.

It has been decided that the project will not be certified. Washington commodity members concur.

9-27-54 - Letter from Operating Committee to Needham, Executive Officer Field Team, requesting his recommendations re certificate of discovery and waiving Operator's final report.

10-27-54- Responding letter from Needham; no response to request re waiving Operator's final report.

Under the circumstances, it appears best to defer further action until either Needham waives final report or we hear from the Operator.

See summary of project attached.

A G. Keating
A. G. Keating

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

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

DATE: November 3, 1954

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

SUBJECT: Final Field Team Report, DMEA Docket 3054 (Uranium), Contract Idm-E603, Urova Co., contractor, 620 South Saddle Creek Rd., Omaha, Neb.; Lakota Lode claim group, Secs. 23 and 26, T. 6 S., R. 1 E., Custer County, South Dakota

The contractor drilled 3,398 feet by wagon drilling in 100 holes on five claims of the group at a total cost of $3,912.32 to explore for uranium in the Fall River formation. No bodies of rock of ore grade were found, although uranium-bearing rock occurs at several places within a stratigraphic range of 20 feet and uranium minerals are locally abundant in nearby open cuts.

The Field Team believes that numerous radioactivity anomalies on these and other nearby claims suggest that bodies of commercial ore may still be found. They believe, also, that effective search for such ore bodies requires detailed geologic study of the relation between mineralized rock or ore and details of stratigraphy and structure. Until such study is made they conclude that further exploration to deeper depths than the limits of Stage 1 of this drilling is not warranted. In addition, they believe that additional exploration by shallow wagon drilling on this property or the adjoining Urova claims of the same owner is not warranted.

The work under this contract did result in a discovery of minable ore. I concur with the recommendation of the Field Team that further exploration of the property is not warranted unless more comprehensive geologic study develops additional indications of favorability.

Arthur P. Butler, Jr.

Copy to: E. Wm. Ellis (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 1 - 1954

October 27, 1954

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Washington, D. C.

From: Executive Officer, Field Team, Region V

Subject: Docket DMEA 3054, Contract Idm E-603, Urova Company, Lakota Claim

This is in reference to your letter of September 27, 1954, regarding the Field Team's final report on the subject property. We referred your inquiry to our Field Team at Rapid City, and because the Bureau of Mines member was on leave for several weeks the answer was considerably delayed. We received his reply today and are passing it on to you.

In effect, it indicates that the Field Team was somewhat undecided or the evidence was not conclusive enough for them to actually recommend a discovery, although the geological aspects of mineralization disclosed was not beyond the realm of possibility that future exploration might disclose, or which would then justify having certified a discovery. His memorandum to me indicates that they rather intend that the certification be decided by the commodity man in Washington. This, to my recollection, is the first time the Field Team from this Region has been unable to decisively indicate a recommendation, and I can readily understand because of the possible geologic aspects of the probability.

A. B. NEEDHAM

Attachment

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
NOV 1 - 1954

C O P Y

October 25, 1954

Memorandum

To: A. B. Needham, Executive Officer, DMEA Field Team, Reg. V.

From: E. O. Binyon, Rapid City Field Office

Subject: Docket 3054, Contract Idm E-603, Urova Company, Lakota Lode claims, Custer County, S. Dak.

This is in reply to your memorandum concerning recommendations for certification of the subject property.

As you say, the operator was somewhat optimistic and should have used mineralization instead of ore in referring to the shows in the deposits on the Lakota Lode claims Nos. 10, 11, 12 and 15. The only shipment of ore from the property, as mentioned in the report of examination, was on a 5-ton lot containing 0.15 percent U_3O_8 shipped before the contract was let. This shipment, I am certain, was obtained by careful sorting from several of the small mineralized pods on all the claims; it was not from a single pod or from a single claim.

As to recommendation for certification--yes, we probably should have made a definite recommendation, or at least explained in more detail the circumstances. As stated in the final report, the area is geologically favorable; the numerous anomalies, although showing only low grade (below shipping grade) indicate that there may be minable deposits at depths greater than 50 feet (the depth to which the drilling was confined) or even within the depth range to which the property was explored. However, no discovery resulted from the work completed under the contract, and as there was no detailed geology on which to base additional exploration, we recommended that the contract be terminated.

The final report mentioned the possibility that more detailed geology may disclose structure that would warrant future exploration, and it may be that detailed geology, combined with the results of the completed drilling, could result in the discovery of deposits that can be economically mined today or of submarginal deposits that could be mined in the not too distant future. In such a case, the work of the project might be considered as contributing at least in part to a discovery.

Under the conditions as outlined, we felt we could not make a definite recommendation and that some one else could, from the data in the final report, better decide whether the property should be certified.

/s/ E. O. Binyon
E. O. Binyon

cc: Reg. Director, Reg. V.
N. G. Cuppels
files

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

F L Knouse
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SEP 27 1954

Mr. A. . Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

Re: Docket No. DMEA-3054 (Uranium)
Contract No. Idm-2603
Urova Company
Lakota Lode Group of claims
Custer County, South Dakota

Dear Mr. Needham:

This is with reference to the final report of the Field Team for the subject project.

We have read the final Field Team report and have concluded you would not recommend issuing a certificate of discovery or development and would waive the Operator's final report. Please advise if we are correct in our assumptions.

In the future please make definite recommendations concerning these questions.

Sincerely yours,

George C. Selfridge
(Ry E 57)
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

FLKnouse/am/gla
9-22-54
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
A. P. Butler, Jr., Rm. 5227
J. O. Hosted, Rm. 3210, GSA
Mr. Knouse
Code 700

Talbert

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

SEP 1 6 1954

Mr. A. B. Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue South
Minneapolis, Minnesota

Re: DMEA-3054, Idm-E603
Urova Company
Custer County, S. D.

Dear Mr. Needham:

Enclosed are the original and two copies of the Report of Review covering the referenced Exploration Project Contract.

Inasmuch as the final Field Team report of the project and the drill logs attached to the Forms MF-104 confirmed the performance of the work authorized by the contract on an agreed unit cost basis, it has not been necessary for an auditor to visit your office in order to issue this Report of Review.

Distribution should be effected in accordance with Section 3 of DMEA Circular 19, Supplement 4, dated October 9, 1952.

Sincerely yours,

(Signed) J. L. Chambers

J. L. Chambers, Chief
Contract Administration
and Audit Division

Enclosure

EDTalbert/wb
September 15, 1954

Copy to: Docket
Admr. Reading File
Mr. Chambers

RCG.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

August 30, 1954

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Washington, D. C.

From: Executive Officer, Field Team, Region V

Subject: Docket DMEA 3054, Contract Idm E-603, Urova Company, South Dakota

Here are the original and three copies of the Field Team's final report on the subject project. Copies have been retained by the Geological Survey, the Rapid City field office and this office.

Transmission of this report also answers your letter of August 6, 1954, inquiring as to when the final report could be expected.

A. B. NEEDHAM

Attachments

Reviewed by
DMEA OPERATING COMMITTEE
9-8-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT BY FIELD TEAM
REGION V

Urova Company

Custer County, South Dakota

E. O. Binyon, Mining Engineer
U. S. Bureau of Mines
W. A. Braddock, Geologist
U. S. Geological Survey

August 18, 1954

Reviewed by
DMEA OPERATING COMMITTEE
9-8-54
(date)

FINAL REPORT BY FIELD TEAM
REGION V

by

E. O. Binyon, Mining Engineer
U. S. Bureau of Mines

W. A. Braddock, Geologist
U. S. Geological Survey

DMEA Docket No. 3054
Contract: Idm E-603
Urova Company, 620 South
Saddle Creek Road, Omaha, Nebr.
Commodity: Uranium

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The property included in the project comprises a group of eleven unpatented lode claims known as the Lakota Lode Nos. 8 through 18. These claims are held by the operator, the Urova Company, Omaha, Nebraska, under a lease agreement with the Minerals Equipment Co., an affiliated company, which originally leased the property from the Lakota Prospecting Co., Hot Springs, S. Dak.

Of the eleven claims in the group, seven lie entirely in section 23, T. 6 S., R. 1 E., B.H.M., Custer County, with a part of the Lakota Lode No. 12 and Lakota Lode No. 13 being in section 26, and the adjoining Lakota Lodes Nos. 14 and 15 entirely in section 26.

Dewey, a small town on the Chicago, Burlington, and Quincy Railroad, is 5 miles west and slightly north of the claims group. The nearest supply centers, Custer and Edgemont, S. Dak., are respectively 33 miles northeast and 28 miles southeast of the property.

County roads from either Edgemont or from Custer by way of Pass Creek are maintained in good condition. However, the two roads leading into the property off the county roads are unimproved and during wet weather or periods of heavy snowfall are practically impassable.

Exploration of the property was by wagon drilling and, as outlined under Stage I of the contract, the drilling was limited to certain anomalous areas on the Lakota Lode claims Nos. 8, 10, 11, 12, and 15.

The project was started October 10th and the drilling was completed November 16, 1953. However, some data, including gamma ray logs and chemical analyses, were not received until February 1954, and the final voucher which covered only the cost of chemical analyses, was not submitted until April 1954.

In all, 100 wagon drill holes with a total footage of 3,398 feet, were drilled. Hole depths varied from 20 to 50 feet and averaged 34 feet. The number of holes and footage drilled on the anomalies on individual claims are as follows:

Claim	No. of Holes	Feet Drilled
Lakota Lode No. 8	12	450
Lakota Lode No. 10	24	880
Lakota Lode No. 11	9	260
Lakota Lode No. 12	29	943
Lakota Lode No. 15	26	865
Total	100	3,398

Location of the holes and the probe results are shown on the accompanying maps.

A regular grid pattern was not used; however, most of the holes were drilled on 100-foot centers, a few being spaced at 150 feet. The holes were located to cover one or more anomalous areas when the areas were small, or to cut across anomalies with only a single row of holes. Intervening areas with no anomalies were not explored.

Total expenditures for the project were:

Wagon drilling 3,398 feet @ $1.09/ft.	$3,703.82
Bulldozer trails and drill site preparation 8 hours @ $12.50/hr.	100.00
Analyses, 31 samples @ $3.50/sample	108.50
Total	$3,912.32

There was no production and no shipments were made during the project.

The drilling indicated the presence of three areas where weakly uraniferous rock occurs in thick-bedded sandstone of the Fall River in several separate horizons at depths ranging from 5 to 35 feet. No ore grade material was found in any of the holes. The uranium found in the pits and open cuts is most abundant in the thin tabular bodies along thin clay partings. Local accumulations along some of the seams contain as much as 1.0 percent U_3O_8.

Cuttings from mineralized sections in the holes were tested radiometrically at the A.E.C. office in Hot Springs and 31 samples were selected for chemical analyses. The maximum content reported was 0.06 percent U_3O_8 for a 4-foot sample from a depth of 8 to 12 feet in hole No. 9 on the Lakota Lode No. 15 claim. Twenty of the samples contained 0.01 percent U_3O_8 or less, and of the remaining 11 samples, three contained 0.03 percent, seven contained 0.02 percent and, as stated, the U_3O_8 content of one sample was 0.06 percent.

In probing the holes it was noted that the zones of highest radioactivity are very thin, suggesting that the mineralized occurrences at depth are similar to those exposed in the surface anomalies, with the concentrations of uranium minerals along thin mudstone seams. However, as stated, none of the mineralized sections in any of the holes were of ore grade, and the amount of uranium in the areas explored was extremely low-grade and of limited extent.

From the results of the work completed under Stage I and the available geologic data, it is concluded that additional exploration of the property would not result in the discovery of minable deposits. This can also be said of the Urova claims which adjoin the property under contract on the south and for which the operator had proposed an amendment for exploration by both core and wagon drilling.

At present, the lack of detailed data on structure and stratigraphy in the area and in the Dewey district prevents intelligent planning of exploration at greater depths than was done under Stage I, and until more detailed geologic information is available, further exploration of the property is not recommended.

In planning future exploration in this district it is believed that the following information should be considered and that it may aid in outlining exploratory work.

The numerous radioactivity anomalies on this property and on the Lost Interest Claim Group (DMEA Docket No. 3012, Contract Idm E-555), which is approximately one mile north of the Lakota Lode claims, are very favorable indications that commercial uranium deposits may occur in the area.

However, in the area where most of the anomalies are found and to which the drilling was confined, the Fall River is a thick sandstone, and does not contain a sufficient concentration of uranium minerals to form ore deposits. Whereas one commercial deposit has been found (Wicker and Baldwin property on the W-B No. 21 claim) approximately 1/2 mile southwest of the Lakota Lode group in an interbedded portion of the formation where the bed has thinned to 8 feet and contains carnotite disemminated through the entire thickness. As this relationship has also been noted in the Edgemont mining district, it suggests that the interbedded portion of the Fall River is a favorable area for exploration.

The chert pebble conglomerates and sandstones of the Lakota formation which lie beneath the Fall River are the lithologic type suitable as host rock for uranium deposits and should also be explored, particularly in those areas underlying the surface anomalies.

Detailed studies of structure and stratigraphy now in progress in the Edgemont district indicate that mineral deposition may be localized by such minor structural features as terrace and anticlines. A detailed study of the Dewey district may disclose a similar relation between structure and deposition and would aid very effectively in planning future exploration.

DESCRIPTION OF THE PROJECT

The project was started October 10, 1953 and drilling operations were completed November 16, 1953. Much of the necessary data, such as probe results and the maps showing locations of the holes, were not received however until late in February 1954, and the final voucher and project progress report were not submitted until April 1, 1954.

Under the contract exploration of the property by wagon drilling was to be in two stages, but the second stage drilling was to be done only if warranted by the results of Stage I. The results were unfavorable and it was recommended that no further drilling be done until more detailed geologic information on the area was available.

Although eleven claims, the Lakota Lode Nos. 8 through 18, are included in the contract, exploration was confined to the anomalies on only five of the group, the Lakota Lode Nos. 8, 10, 11, 12, and 15 (see map). Originally, the operator planned to have the wagon drilling done by a contractor and a bid of $.75 per foot, with a move-in and out charge of $150.00, was submitted. However, by the time the contract was approved the contractor's equipment was not available and the company proposed to use equipment, which they stated was rented from Minerals Equipment Co., an affiliated company. Since there had been considerable delay in starting the project and neither the price per foot nor the total amount of the contract was affected, this was agreed to by the field team.

Other than a limited amount of dozer work on trails and drill site preparation, and chemical analyses of 31 samples for U_3O_8, the work of the project consisted entirely of wagon drilling.

One hundred holes with a total footage of 3,398 feet were drilled. The holes, $2\frac{1}{4}$ inches in diameter and varying from 20 to 50 feet in depth with an average depth of 34 feet, are located as shown on the accompanying map. The number of holes and total footage drilled on each claim are listed below:

Claim	No. of Holes	Feet Drilled
Lakota Lode No. 8	12	450
Lakota Lode No. 10	24	880
Lakota Lode No. 11	9	260
Lakota Lode No. 12	29	943
Lakota Lode No. 15	26	865

Probe results are shown on a print submitted by the company. These were checked in part by the field team; however, many of the holes had caved and could not be checked to the bottom.

A list of the samples, with the chemical analyses for U_3O_8, accompanies the report.

GEOLOGY

The Lakota Lode claims are on the west side of the outer hogback of the southwest rim of the Black Hills. This hogback consists of sandstone and shale of the Lower Cretaceous Inyan Kara group. The Inyan Kara group consists of three formations, which in order of increasing age, are:

Fall River sandstone:	Consists of massive, fine- to medium-grained sandstone which, in most of the area, is greater than 60 feet thick. At the southwest edge of the area, however, this sandstone thins to 15 feet or less and is interbedded with carbonaceous mudstone.
Fuson formation:	Consists of thin white sandstones and variegated shale.
Lakota sandstone:	Consists of dark gray carbonaceous siltstones, chert pebble conglomerates, and gray, fine-grained sandstone.

The only major structural feature in the area is the Dewey fault zone which trends northwest and which crosses the hogback approximately $1\frac{1}{2}$ miles north of the claim group. Throughout the rest of the area the beds dip from 5 to 10 degrees southwest.

Uranium minerals have been found in numerous outcrops which extend from the Dewey fault southeast into the Edgemont mining district. The majority of the occurrences are in the thick sandstone of the Fall River. Two occurrences are in the Fall River sandstone where this sandstone is only 8 to 15 feet thick. One occurrence has been found in a chert pebble conglomerate of the Lakota sandstone. The mineralized occurrences on the Lost Interest claim group (Weir, Henderson and Schuh), which were explored under a previous contract, and those on the Lakota Lode claims are essentially the same type of deposit. They occur in the portions of the Fall River which consists of thick sandstone. In the area of the present contract, over 50 separate surface radioactivity anomalies were detected. None of these anomalies contain ore grade material.

Uranium in the anomalous areas has been concentrated along thin clay partings in the sandstone. Locally, these thin clay seams may contain as much as 1.0 percent U_3O_8. Southwest of the Lakota Lode claims concentrations of carnotite have been mined at the Wicker-Baldwin No. 21 claim. At this claim the thick Fall River sandstone has thinned to 8 feet and carnotite is disseminated through the entire thickness.

Results of the Exploration

No commercial grade uranium deposits were discovered. Many of the drill holes on the Lakota Lodes Nos. 10, 11, 12 and 15 penetrated uranium-bearing rock at depths ranging from 5 to 35 feet. The cuttings from these

mineralized areas contain a maximum of 0.06 percent U_3O_8 and the majority of the samples contain less than 0.02 percent. The holes were probed with a Geiger counter and it was observed that the zones of highest radioactivity are very thin. It is therefore suggested that the mineralized rock penetrated by the drill holes is the same as is exposed in the surface anomalies; uranium is apparently concentrated along thin mudstone seams, and none of the concentrations are large enough to mine.

Conclusions

For future reference the following points should be considered:

1. The large number of radioactivity anomalies which are in the area of the Lakota Lode claims and the Lost Interest claims strongly suggest that commercial uranium deposits may be found in the area.

2. The fact that the anomalies which do not contain concentrations of uranium occur in the thick sandstone portions of the Fall River, while the only commercial deposit occurs in the thin sandstone portion of the formation and suggests that this thin interbedded portion is the favorable area for exploration. This relationship is borne out in the Edgemont mining district.

3. Beneath the Fall River sandstone are the chert pebble conglomerates and sandstones of the Lakota formation. These beds are the lithologic type, which is suitable as a host rock for uranium deposits. It is suggested that these beds underlying the areas of surface anomalies may contain uranium deposits.

4. No detailed structural or stratigraphic study of the area has been made. Studies of this kind which are in progress in the Edgemont mining district indicate that ore may be localized by minor structural features such as terraces or anticlines. When the area surrounding the Lakota Lode claims is studied in detail, such structural features may very effectively guide additional exploration.

EXPENDITURES

Of the total of $9,780.00 approved for the contract, $4,055.00 was for the work under Stage I and $5,725.00 for Stage II.

Only the work under Stage I was completed and total expenditures were as follows:

Wagon drilling 3,398 feet @ $1.09/ft.	$3,703.82
Bulldozer rental @ $12.50/hr. for 8 hrs.	100.00
Chemical analyses, 31 samples @ $3.50 ea.	108.50
Total	$3,912.32

The government's share at 90 percent participation of the total approved for the contract amounted to $8,802.00 and its share of the expenditures is $3,521.09, leaving an unexpended balance of $5,280.91

No ore was produced or sold during the operation of the project.

EFFICIENCY OF THE OPERATIONS

The project was not operated in an entirely satisfactory manner. Sampling, in many instances, was not done as had been agreed upon prior to starting the project. Sample intervals were too great and many of the samples were taken at irregular intervals, not at the prescribed 2-foot interval. Also, owing to the delay between completion and probing of the holes, some of the holes could not be probed to the full depth and probing results are not complete.

The data submitted by the operator were incomplete and it was necessary to make several requests, involving considerable delay before all the data necessary for evaluating results were obtained.

Except that drilling footage per shift was somewhat lower than anticipated, drilling operations were fairly efficient.

No equipment was purchased for the project.

Other than the assay data and probe results on the accompanying prints, the operator has not submitted a final report and it is doubtful that such a report would include any data not included in the field team's report.

SAMPLE DATA

Claim	Hole No.	Depth Ft.	Percent U_3O_8
Lakota Lode No. 10	2	10-15	.02
Lakota Lode No. 10	4	5-12	.01
Lakota Lode No. 10	10	30-35	.02
Lakota Lode No. 10	20	20-24	.002
Lakota Lode No. 11	3	19-23	.01
Lakota Lode No. 11	3	23-25	.03
Lakota Lode No. 11	4	11-13	.008
Lakota Lode No. 11	4	13-15	.03
Lakota Lode No. 11	4	15-20	.01
Lakota Lode No. 11	4	20-25	.03
Lakota Lode No. 11	4	22-27	.007*
Lakota Lode No. 12	22		.02*
Lakota Lode No. 15	1	15-16	.01
Lakota Lode No. 15	3	22-25	.008
Lakota Lode No. 15	9	4-5	.01
Lakota Lode No. 15	9	8-12	.06
Lakota Lode No. 15	9	15-20	.01
Lakota Lode No. 15	11	10-15	.01
Lakota Lode No. 15	11	15-20	.007
Lakota Lode No. 15	11	20-25	.02
Lakota Lode No. 15	12	8-10	.01
Lakota Lode No. 15	13	10-12	.01
Lakota Lode No. 15	19	5-15	.01
Lakota Lode No. 15	19	15-24	.01
Lakota Lode No. 15	20	8-10	.02
Lakota Lode No. 15	20	10-15	.01
Lakota Lode No. 15	32		.02*
Lakota Lode No. 15	23	10-14	.01
Lakota Lode No. 15	24	15-20	.02
Lakota Lode No. 15	26		.005*
Lakota Lode No. 15	26	25-35	.01

* Data on depth missing.

LAKOTA LODE CLAIMS
PROBE READINGS

Urova Company

DMEA 3054-1st Stage

Lakota Lode No. 8

Hole No.	Feet Drilled	Geiger-counter readings at various depths
1	40	None
2	40	None
3	40	None
4	40	None
5	40	None
6	50	None
7	40	None
8	40	None
9	40	None
10	40	0/6-0, 6/7-10, 7/37-0
11	20	0/18-0
12	20	0/5-8, 5/18-0
Total	450	

LAKOTA LODE CLAIMS
PROBE READINGS

Urova Company

DMEA 3054-1st Stage

Lakota Lode No. 10

Hole No.	Feet Drilled	Geiger-counter readings at various depths
1	50	None
2	20	0/10-0, 10/15-10
3	50	0/16-0, 16/25-10, 25/45-0
4	30	0/3-0, 3/5-10, 5/12-15, 12/28-0
5	30	None
6	50	None
7	40	None
8	30	None
9	50	None
10	50	0/24-0, 24/30-10, 30/35-20, 35/40-10
11	50	0/33-0, 33/36-15, 36/50-8
12	30	0/9-0, 9/26-10
13	20	None
14	30	None
15	35	None
16	35	0/3-0, 3/8-8, 8/27-0
17	35	0/28-0
18	35	0/7-0, 7/14-10, 14/22-6
19	40	0/28-0
20	40	0/12-0, 12/14-10, 14/17-0, 17/20-10, 20/24-15, 24/35-0
21	40	0/4-20, 4/10-7, 10/28-0
22	30	None
23	30	None
24	30	0/5-10, 5/15-8, 15/27-0
Total	880	

Lakota Lode No. 11

1	40	0/37-0
2	30	0/10-0, 10/15-10
3	30	0/5-0, 5/8-10, 8/15-0, 15/19-10, 19/23-20, 23/25-15, 25/27-20
4	30	0/8-0, 8/11-10, 11/13-15, 13/15-10, 15/20-20, 20/22-15, 22/27-20
5	30	None
6	30	None
7	20	None
8	20	None
9	30	None
Total	260	

LAKOTA LODE CLAIMS
PROBE READINGS

Urova Company

DMEA 3054-1st Stage

Lakota Lode No. 12

Hole No.	Feet Drilled	Geiger-counter readings at various depths
1	40	None
2	38	None
3	35	None
4	30	None
5	30	None
6	25	None
7	40	None
8	40	None
9	30	None
10	40	None
11	40	None
12	30	None
13	30	None
14	30	None
15	30	None
16	30	None
17	30	None
18	30	None
19	30	0/35-0, 35/38-7
20	30	None
21	30	None
22	30	None
23	30	None
24	30	None
25	30	None
26	30	0/5-0, 5/26-8
27	35	None
28	40	0/5-0, 5/8-10, 8/10-20, 10/15-5, 15/35-6
29	35	0/30-8
Total	943	

LAKOTA LODE CLAIMS
PROBE READINGS

Urova Company

DMEA 3054-1st Stage

Lakota Lode No. 15

Hole No.	Feet Drilled	Geiger-counter readings at various depths
1	30	15/16-20, 16/18-15, 18/20-8, 20/25-0
2	30	0/30-0
3	30	0/15-0, 15/18-10, 18/22-15, 22/25-12, 25/30-10
4	30	0/5-0, 5/8-10, 8/25-0
5	30	0/25-0
6	30	0/30-0
7	30	0/20-0, 20/25-7
8	30	0/30-0
9	40	4/5-20, 5/8-15, 8/12-15, 12/15-20, 15/20-8, 20/25-15, 25/30-10, 30/35-10
10	30	0/8-10, 8/16-20, 16/20-10, 20/26-20, 26/29-10
11	30	0/10-10, 10/25-25, 15/20-20, 20/30-0
12	30	0/8-0, 8/10-15, 10/15-10, 15/28-0
13	30	0/5-0, 5/10-7, 10/12-15, 12/20-20, 20/25-10, 25/28-0
14	30	0/15-0, 15/25-10, 25/28-10
15	30	0/12-0, 12/15-10, 15/20-0, 20/26-10
16	30	0/30-0
17	30	0/5-0, 5/10-8, 10/27-0
18	30	0/5-5, 5/9-10, 9/28-0
19	40	0/5-10, 5/15-12, 15/24-20, 24/35-10
20	50	0/8-10, 8/10-15, 10/15-20, 15/25-8, 25/28-0
21	40	---
22	35	0/35-7
23	30	0/5-0, 5/10-5, 10/14-27, 14/25-0
24	40	0/5-0, 5/30-7, 30/32-20
25	40	0/5-0, 5/10-8, 10/30-8, 30/34-15, 34/36-26
26	40	0/15-0, 15/20-10, 20/25-8, 25/35-15
Total	865	

Surname 700

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

FLKnouse
Ellis
Selfridge
Mathendorf

Mr. A. B. Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

AUG 3 1954

Re: Docket No. DMEA-3054 (Uranium)
Contract No. I4m-1603
Urova Company
Lakota Lode Group of Claims
Custer County, South Dakota

Dear Mr. Needham:

This is with reference to your memorandum dated July 23, 1954, which transmitted the three executed copies of "Termination of Exploration Project Contract by Agreement After Commencement but Before Completion of the Work."

We note that this document was executed prior to receipt of DMEA Circular No. 33. However, your attention is directed to "Memorandum No. 18", dated March 9, 1953, from the Operating Committee to the Field Teams, first paragraph, last sentence. "It is therefore requested that Field Team Executive Officers enter into no agreements with operators for suspension of operations or termination of contracts, and give no notices of termination, without first notifying the Washington office and obtaining its approval of such action."

We have however, approved this termination agreement.

Will you please advise when we may expect to receive the final report on this project from the Operator and the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (246)

APPROVED:

J. H. Hedges
Member, Bureau of Mines (246)

s/E. L. Newcomb
Member, Geological Survey (246)

FLKnouse/am
8-5-54
cc to: Admr. Reading File
Docket
Operating Committee
Messrs. A. P. Butler, Jr., Rm. 3212, GSA
J. O. Hosted, Rm. 3210, GSA
H. D. Keiser, Rm. 3641
Code 700
Mr. Knouse

R.C.H.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

July 23, 1954

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Washington, D. C.

From: Executive Officer, Field Team, Region V

Subject: Docket 3054, Contract E-603, Urova Company

Here are the original and two copies of a notice of termination of the subject project. One copy of the termination has been transmitted to the Regional Fiscal Section, and copies have been retained by the operator, Rapid City Field Office and this office.

Stage 1 was completed but when the results were evaluated by the Field Team they did not warrant continuing into phase 2, nor did the new areas at first proposed to be requested included via an amendment show geologic promise. Accordingly, the project was terminated.

Following are the account data:

Total amount of contract	$9,780.00
Government share	8,802.00
Total amount spent	3,912.32
Government share	3,521.09
Amount available to general fund	5,280.91

It appears the project will not be certified. Final reports will be transmitted when received from the field.

This agreement was entered into before receipt of DMEA Circular No. 33.

A. B. NEEDHAM

Attachments

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

RECEIVED
JUL 8 - 1954

July 6, 1954

Mr. J. H. Imig
The Urova Company
620 South Saddle Creek Road
Omaha, Nebraska

Dear Mr. Imig:

We have just been informed by our Mr. Binyon, Rapid City, South Dakota, that you are willing to mutually terminate your DMEA project, Docket 3054, Contract E-603 and accordingly here are the original and six copies of a termination form which we ask that you sign all copies, retain a carbon copy for your files and return the original and other carbon copies to this office for further distribution.

Mr. Binyon advises the DMEA representatives in the Black Hills examined and evaluated the results of Stage 1 of the work and felt additional work was not warranted. Also that the geology of the areas contemplated to be added via an amendment did not give promise of success.

Perhaps the other application, your docket 3239, if granted, will be more promising.

Very truly yours,

A. B. NEEDHAM
Chief, Mining Division
Region V

Enclosures

cc DMEA, Wash. (2)
Dutton
Binyon
Braddock
Redden

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

Department of the Interior
Defense Minerals Administration
RECEIVED
APR - 9 1954

April 7, 1954

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Washington, D. C.

From: Executive Officer, Field Team, Region V

Subject: Docket 3054, Contract E-603 - Urova Company

Reference is made to your letter of March 29, 1954, on the subject project. Attached are the original and two copies of Amendment No. 1, which provides an extension of the completion date to June 21, 1954.

As noted on the amendment, work on Stage 1 of this project was completed in November 1953. The Field Team has requested certain information on probing the holes in order that a determination can be made as to whether or not Stage 2 should be started. In case Stage 2 is approved, this extension of time will permit the work to be done by June 21. If Stage 2 is not approved, then the contract is completed.

One copy of the amendment has been transmitted to our Regional Fiscal Section, and a copy retained for our files.

A. B. NEEDHAM

Attachment

RECEIVED
APR 21 1954
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

17

Surname
Docket Copy

700

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

F L Knouse
Ellis
Selfridge
F Johnson
Mottendorf

MAR 2 9 1954

Mr. A. B. Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

Re: Docket No. DMEA-3054 (Uranium)
Contract No. Idm-E603
Urova Company
Lakota Lode Group of Claims
Custer County, South Dakota

Dear Mr. Needham:

This is with reference to the status of the subject project and completion date as set forth in the contract.

Please advise if the project is completed or if the work has been recessed for the winter. If the work is completed, kindly advise when we may expect to receive the final reports of the Operator and the Field Team, and also the Field Team's recommendations concerning issuing a certificate of discovery or development. If the project is recessed, and if you approve, we suggest you prepare an amendment providing for the recess period and extending the time within which to complete the work in accordance with Operating Committee Memorandum No. 18, dated March 9, 1953.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (245)

FLKnouse/gla
3/26/54
cc to: Adm. Reading File
Operating Committee
Docket
Messrs. APButler, Jr. Rm. 3212, GSA
JOHosted, Rm. 3210, GSA
HDKeiser, Rm. 3641
Code 700
FLKnouse

APPROVED:

J. H. Hedges
Member, Bureau of Mines (242)

D. M. Larrabee
Member, Geological Survey (245)

R.G.S. 3-29-54

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

DOCKET FILE
F L Knouse
Ellis

Mr. W. R. Schaefer, President
Urova Company
620 South Saddle Creek Road
Omaha, Nebraska

NOV 3 1953

Re: Docket No. DMEA-3054 (Uranium)
Contract No. Idm-E603
Lakota Lode Group of claims
Custer County, South Dakota

Dear Mr. Schaefer:

Reference is made to your above-named Exploration Project Contract for uranium. You are probably aware that in some similar cases it has been found that some part or all of the land which is the subject of the exploration project contract consists of claims located on land which was subject to prior Federal oil and gas leases. The validity of such claims is doubtful, and in some cases the Atomic Energy Commission has issued a lease to the land for whatever benefit that may afford in curing the invalidity as far as uranium is concerned.

By the recent act of Congress approved August 12, 1953 (Public Law 250, 83d Cong.), mining claims located between July 31, 1939, and January 1, 1953, on United States Lands which were then subject to oil and gas leases, may be validated by the owners of such claims, if, not later than December 10, 1953, they

> ".... post on such claim in the manner required for posting notice of location of mining claims and file for record in the office where the notice or certificate of location of such claim is of record an amended notice of location of such claim, stating that such notice is filed pursuant to the provisions of this Act and for the purpose of obtaining the benefits thereof."

If any of the land which is the subject of your Exploration Project Contract includes a located claim or claims, the validity of which might be questioned on account of a previous oil and gas lease, the statute cited is called to your attention so that you may validate your rights as above indicated, if you consider this to be in your interest. This Agency deems such validation to be desirable even though the land in question may be covered by a lease from the Atomic Energy Commission.

Sincerely yours,

C. D. Mittendorf

Administrator

FLKnouse/gla
10-30-53
cc to: Docket file
Region V (2)
Division contract file

50811

FILE COPY
SURNAME:

FLKnouse

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

WASHINGTON 25, D. C.

Note: This letter not sent, but copy retained for reference. H.C.Rubin states "As the completion date is fixed in the contract, and as that date is only 3 months from the date of the contract, our only concern is that work be begun in reasonable time. HCR"

Mr. A. . Needham
Executive Officer
DMA Field Team, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

Re: Docket No. DMA-304 (Uranium)
Contract No. IDM-203
Trova Company
Custer County, South Dakota

Dear Mr. Needham:

We acknowledge receipt of the original and two copies of the executed captioned contract, dated September 21, 1953, transmitted to Washington with your memorandum dated October 12. We note that in Article 3 of the contract the period of time within which the Operator will be required to begin the work was not inserted in these three copies, and it is presumed that the copies distributed by you are incomplete in this respect.

Therefore, kindly have the allowed period of time inserted in the copies retained in the Field and advise us accordingly so that the same insertion can be made in the three copies sent to this office.

Sincerely yours,

Chairman, Operating Committee

Also to:

Member, Bureau of Mines

Member, Geological Survey

FLKnouse/gla/gh
10-15-53
cc to: Adm. Reading File
Opr. Committee
Docket
Messrs: H.D.Keiser, Rm.3641
A.P.Butler, Jr., Rm.3212, GSA
Ellis
Knouse

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

October 12, 1953

Memorandum

To: Operating, Committee, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, Field Team, Region V

Subject: Docket 3054, Contract Idm E-603, Urova Co.

Here are the Government, Division, and Docket copies of the subject contract, duly signed.

The finance copy is being transmitted to them, and the field team copy has been retained in this office.

A. B. Needham
Executive Officer, Field Team
Region V

Attachments

cc: C. E. Dutton
E. O. Binyon
J. A. Redden
L. A. Hill (att)
Region V
Files
Day Files

FILE COPY
SURNAME 913

Murphy
Ellis
Chairman
Selfridge
Johnson

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

SEP 21 1953

Mr. A. H. Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

Re: Docket No. DMEA-3054 (Uranium)
Dreva Company
Lakota Lode Group
Custer County, South Dakota

Dear Mr. Needham:

Enclosed with attachments are the original and five copies of the captioned contract signed by the Administrator for the Government.

If the terms and conditions of this proposed contract meet with your approval and that of the Operator, have the original and all copies signed by the company official authorized to sign the contract, and then kindly distribute the copies in the usual manner.

If any part of this proposed contract does not have either your approval or that of the Operator and cannot be amended within your delegated authority, the original and all copies of the contract are to be returned to this office with the proposed changes for consideration.

The Application was for a total amount of $47,365.00. The Field Team recommended $9,690.00, and the proposed Contract is for a total amount of $9,700.00.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/B)

Enclosure 6

APPROVED:

J. H. Hedges (2/B)

Member, Bureau of Mines

A. R. Kinkel, Jr. (2/B)

~~Member, Geological Survey~~

FMMurphy/db
9-11-53
cc to: Adm. Reading File
Operating Committee
Docket
Messrs: H.D.Keiser, Rm. 3641
A.P.Butler, Jr., Rm. 3206, GSA
Ellis
Murphy

P.G.B. 9-21-53

IRWIN-IMIG CO.
CERTIFIED PUBLIC ACCOUNTANTS
FIRST NATIONAL BANK BUILDING
OMAHA 2, NEBRASKA
TELEPHONE HARNEY 8234

MEMBERS OF THE
AMERICAN INSTITUTE OF ACCOUNTANTS

August 3, 1953

Mr. Morris S. Schwartz
% Mr. C. Austin Sutherland
1424 - 16th Street, N.W.
Washington 6, D. C.

Dear Mr. Swartz:

I am very sorry that I have not been able to reply earlier than this to your letter of July 17.

We have asked the Lakota Prospecting Company to execute the "Owners consent to lien", but since they had already executed such a consent on December 2, 1952, they felt it was somewhat irregular to request another such consent. However, they are calling a board meeting, but it will probably be at least a week or two before we are able to get a new consent to you.

The attorney for the Lakota Prospecting Company advises that in his opinion the original consent should suffice so far as the government is concerned. Mr. Schaefer and I have also discussed this and both of us feel that the original consent should cover this. Perhaps you will be able to get the D. M. E. A. to move the application along, at least temporarily, without the new consent, although as I said above, we believe that within a couple of weeks we can get the new consent to you.

Enclosed herewith is a copy of the lease which was consummated on June 29.

Yours very truly,

IRWIN-IMIG CO.

By J. H. Imig

JHI:ms
Enc.

cc: Mr. W. R. Schaefer

7/13/53 gla

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

July 13, 1953

Memorandum

To: The Administrator
Through: Mr. E. W. Ellis

From: Chief Counsel

Subject: Urova Company, Docket No. DMEA-3054 (Uranium)

There is attached, in satisfactory legal form for execution, a contract covering the above-described project—

1. Subject to the Operator's obtaining a valid lease of the property which is the subject of exploration. All that the Operator now has is an option to lease which, according to its terms, expired on June 30, 1953. The option itself states that time for the exercise of the option and delivery of the lease is of the essence of the agreement.

2. Subject to the attachment of the Owner's Consent to Lien, after the aforesaid lease has been obtained.

AWKane
for J. L. Hofflund
Chief Counsel

Attachments

AMENDED MINING LEASE AGREEMENT

This agreement made and entered into this 19th day of August, 1953, by and between Lakota Prospecting Company, Inc., a corporation of Hot Springs, South Dakota, hereinafter called the lessor, and Urova Co., a corporation of Omaha, Nebraska, hereinafter called the lessee, WITNESSES:

That the lessor, in consideration of the cash payments, rents, royalties and agreements hereinafter provided, does hereby grant, lease, let and demise unto the lessee the following described lands, mining properties and claims, to-wit:

> LAKOTA LODE NO. 2, LAKOTA LODE NO. 3, LAKOTA LODE NO. 4, LAKOTA LODE NO. 8, LAKOTA LODE NO. 9, LAKOTA LODE NO. 10, LAKOTA LODE NO. 11, LAKOTA LODE NO. 12, LAKOTA LODE NO. 13, LAKOTA LODE NO. 14, LAKOTA LODE NO. 15, LAKOTA LODE NO. 16, LAKOTA LODE NO. 17, LAKOTA LODE NO. 18, LAKOTA LODE NO. 20, LAKOTA LODE NO. 21, LAKOTA LODE NO. 22, LAKOTA LODE NO. 23, LAKOTA LODE NO. 24, LAKOTA LODE NO. 27, LAKOTA LODE NO. 25, LAKOTA LODE NO. 26, LAKOTA LODE NO. 28, LAKOTA LODE NO. 29, together with all appurtenances thereto belonging, same all being situated in FALL RIVER COUNTY and CUSTER COUNTY, SOUTH DAKOTA,

for and during the term of three years from the date hereof and for so long hereafter as ore and minerals are produced therefrom in commercial quantities under the terms and conditions of this lease.

In consideration thereof the lessee agrees as follows:

1. To pay to the lessor $12.50 per acre for the acreage contained in said leased premises, payment thereof being hereby acknowledged by the lessor from the lessee.

2. To pay the lessor as royalty 12½ per cent of the gross proceeds received by the lessee from the sale of all carnotite and other valuable minerals removed from the leased premises by the lessee, said royalty to be paid on or before the 15th day of the month succeeding the receipt of such gross proceeds by the lessee and such royalties to be paid to the credit of the lessor's account in the

Hot Springs Office of the First National Bank of the Black Hills at Hot Springs, South Dakota, or such other bank as the lessor shall hereafter designate in writing to the lessee.

3. To permit the agents and officials of the lessor to enter upon the leased premises at any reasonable time for purposes of inspection. To furnish said lessor with current exploration plans for said leased premises at reasonable times and intervals.

4. To enter upon the leased premises and begin to work the same within 180 days from the date hereof.

5. To save the lessor harmless from any liability arising by reason of the lessee's operation and working of the leased premises, including damage to the person or property of another and all liability to the lessee's employees.

6. To promptly and peaceably surrender possession of the leased premises in good condition to the lessor upon termination of this lease from any cause or at any time when no work has been done by the lessee on any of said claims for a period of 180 days continuously, upon written demand by the lessor, and the lessee further agrees to remove all its property from the leased premises within a reasonable time thereafter.

7. If the lessee shall fail to begin work on any of said claims within three years from the date hereof the lessor may thereupon by written notice to the lessee, terminate this lease as to any or all of each unworked claims.

Lessor agrees to promptly pay all taxes and assessments which shall become due on its said property and if it fails to so do the lessee may pay same and recover back such payment from the lessor from royalties due to the lessor, or in any other lawful manner.

Lessee agrees to promptly pay all taxes and assessments which become due on its property on the leased premises before same shall become delinquent, including mining assessments.

Lessor warrants that it has good right and lawful authority to lease said premises to the lessee.

No default or forfeiture shall be asserted against the lessee in the event that its performance of the terms of this lease is prevented by any ruling, regulation, law, directive or order of government, either federal or state, or any of their agencies, and

particularly of the United States Atomic Energy Commission, and the terms of this lease shall be subject to all such rules, regulations, laws, directives and orders.

Time and manner of performance are the essence of this lease agreement. Lessee agrees to perform the covenants of this lease with due diligence in good workmanlike manner and in furtherance of the mutual interests of the parties hereto.

This lease is executed in triplicate and shall be binding upon the parties hereto, their successors and assigns.

This Amended Mining Lease Agreement is executed to amend Mining Lease Agreement, dated June 29, 1953, by and between the parties hereto, and recorded in Book 18 of MIS on page 323 of the official records of the Register of Deeds of Custer County, South Dakota, and in Book 33 M on page 272 of the official records of the Register of Deeds of Fall River County, South Dakota, and is made without waiver of any previous rights, but to correct errors in the description of the leased premises wherein LAKOTA LODE NO. 16 and LAKOTA LODE NO. 23 were omitted from the description of the leased premises in said Mining Lease Agreement, dated June 29, 1953.

LAKOTA PROSPECTING COMPANY, INC.

ATTEST:

By _____
President

_____
Secretary

UROVA CO.

ATTEST:

By _____
Vice-President
(Acting as President)

_____
Secretary

STATE OF SOUTH DAKOTA)
) SS.
COUNTY OF FALL RIVER)

On this the 19th day of August, 1953, before me, Joyce Wilson, the undersigned officer, personally appeared H. Y. COTT, who acknowledged himself to be the President of Lakota Prospecting Company, Inc., a corporation, and that he, as such President, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as President.

In witness whereof I hereunto set my hand and official seal.

Joyce Wilson
Notary Public

STATE OF SOUTH DAKOTA)
) SS.
COUNTY OF FALL RIVER)

On this the 19th day of August, 1953, before me, Joyce Wilson, the undersigned officer, personally appeared C. [illegible] KENNEDY, who acknowledged himself to be the Vice-President acting as President of Urova Co., a corporation, and that he, as such Vice-President acting as President, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Vice-President acting as President.

In witness whereof I hereunto set my hand and official seal.

Joyce Wilson
Notary Public

a-21095

STATE OF } ss

This instrument of writing was
filed for record on the 25th day of
Aug. A. D. 1953 at 2:15
P. M. and duly recorded
in Book 13 of
Deeds on page 36 of
Records of Bayam
County

Fee $2.90

RECORDED
INDEXED
COMPARED

IRWIN-IMIG CO.
CERTIFIED PUBLIC ACCOUNTANTS

FIRST NATIONAL BANK BUILDING
OMAHA 2, NEBRASKA
TELEPHONE HARNEY 8234

MEMBERS OF THE
AMERICAN INSTITUTE OF ACCOUNTANTS

September 4, 1953

F.M. Murphy
Leo Dean

Mr. C. Austin Sutherland
1424 16th Street N. W.
Washington 6, D. C.

Dear Mr. Sutherland:

Enclosed herewith are seven copies of Owners Consent to Lien executed by the Lakota Prospecting Company, Inc., together with photostatic copies of the Amended Lease Agreements which were recorded in Fall River County and Custer County, South Dakota.

Sorry this took so long to get to you but we were not able to get action.

If there is any further information you need please write or telephone me.

Yours very truly,

By J. H. Imig

JHI:ms

SEP
WASHINGTON, D. C.

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

August 17, 1953

Memorandum

To: File

From: F. L. Knouse F. L. Knouse
Rare and Misc. Metals Division

Subject: Docket No. DMEA-3054 (Uranium)
Urova Company
Dakota Lode Group
Custer County, South Dakota

The following is a resume of matters discussed with Morris S. Schwartz, Attorney at Law, 318 Union Trust Building, 15th and H Streets, N. W., Washington, D. C., authorized representative of the above Applicant, in connection with the processing of this application:

July 3, 1953 - While Mr. Schwartz was in the office, he was given Owner's Consent to Lien forms (MF-203) to have signed and returned to this office.

July 13,1953 - Mr. Schwartz, Attorney for the Applicant, was advised to obtain a new lease and also new Owner's Consent to Lien forms after the date of the old lease expiration date.

Aug. 11, 1953 -Discussed quetions about obtaining lease and new Owner's Consent to Lien with Mr. Morris S. Schwartz by telephone. Mr. Schwartz promised to obtain all the necessary data and bring it in tomorrow. He also promised to discuss the whole question with his client in order to clarify matters.

Aug.12, 1953 - Mr. Schwartz in the office and delivered the original of Irwin-Imig Co. letter August 3, 1953, to himself; original of W.R.Schaefer, Urova Company letter dated July 14, 1953, to himself; cc of Mr. Schartz's letter July 17, 1953, to Mr. J. H. Imig Omaha, Nebraska, and photostatic copy Mining Lease Agreement June 29, 1953, between Lakota Prospecting Company, Inc. and Urova Co.

August 15 ** See second page

Aug.17, 1953 - Mr. Schwartz in office. Returned lease previously submitted and Owner's Consent to Lien forms delivered today, since both were defective. Supplied him with eight copies of

Form MF-203 (Owner's Consent to Lien).

Aug.15, 1953 - Advised Mr. Schwartz that lease delivered did not include Claim No. 16 Lakota Lode Mining claim which is one of the claims to be explored.

F. L. Knouse

July 17, 1953

Mr. J. H. Inig,
912 First National Bank Building,
Omaha, Nebraska.

Dear Mr. Inig:

I am enclosing copy of letter received from Mr. W. R. Schaefer with further reference to the Urova project and loan application filed with the Defense Minerals Exploration Administration.

I took this matter up in person with the officials of the D.M.E.A. processing your application, and find that it will be necessary for you to supply them with the following, the further processing of your application being held in abeyance until this additional data is furnished them.

First: They require a copy of the lease which was consummated June 29th.

Second: They require the re-execution of 7 copies of the enclosed "Owner's Consent to Lien" instrument for the purpose of encompassing the lease consummated June 29th. The D.M.E.A. indicates that the Owner's Consent to Lien which was previously filed with them (and which they have in their files) refers to the agreement displaced by your new lease, and apparently will not cover your present lease consummated on June 29th.

Everything looks favorable, and the further processing of your Urova application is dependent upon and awaits the receipt of the data outlined above. I suggest that just as soon as you have completed the data above indicated, that you forward them to me immediately in order that I may take it up in person with the proper officials of the D.M.E.A. here in Washington for the purpose of expediting it at this end.

Address material to me c/o Mr. C. Austin Sutherland, 1424 - 16th Street, N.W., Washington 6, D. C.

Very truly yours,

Morris S. Schwartz

Copy to:
Mr. W. R. Schaefer, President,
Urova Co.
620 South Saddle Creek Road,
Omaha, Nebraska

Omaha, Nebraska
July 14, 1953

Mr. Swartz
1424 Sixteenth Street, N.W.
Washington 6, D.C.

Dear Mr. Swartz:

In talking with Austin on the phone last night I find you need some more information regarding the D.M.E.A. loan application.

Enclosed is a photostatic copy of the landowners' consent agreement. The original was filed with Mr. E. O. Dinyon in Rapid City, South Dakota.

The option to lease with the Lakota Prospecting Company was consumated on June 29th and recorded at Fall River and Custer County Court Houses on the same date.

I do not have a copy of this lease in my file. They are at our Secretary's office, Mr. J. H. Imig, who is on a week's vacation. If you need any further information please contact Mr. J. H. Imig, 912 First National Bank Building, Omaha, Nebraska, after this week.

I will be out of town until August 2nd and will be in Omaha from that date to August 7th.

Yours truly,

Urova Co.
620 South Saddle Creek Road
Omaha, Nebraska

W. R. Schaefer Pres.

W. R. Schaefer

WRS:el
encl.

FILE COPY
SURNAME:

140

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

N.S. in N.N.

July 18, 1953

Memorandum

To: The Administrator
Through: Mr. E. W. Ellis

From: Chief Counsel

Subject: Urova Company, Docket No. DMEA-3054 (Uranium)

There is attached, in satisfactory legal form for execution, a contract covering the above-described project—

1. Subject to the Operator's obtaining a valid lease of the property which is the subject of exploration. All that the Operator now has is an option to lease which, according to its terms, expired on June 30, 1953. The option itself states that time for the exercise of the option and delivery of the lease is of the essence of the agreement.

2. Subject to the attachment of the Owner's Consent to Lien, after the aforesaid lease has been obtained.

/s/ AEKane
for J. L. Hofflund
Chief Counsel

Attachments

AEKane:ep

Copy to: Mails & Files
Mr. Hofflund
Mr. Kane
Chron.

7/8/53 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

DMEA-3054

July 6, 1953

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, Field Team, Region V

Subject: Urova Docket

Here are four copies of the Owner's Consent To Lien.

A. B. Needham
Executive Officer, Field Team
Region V

Attachments

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

July 6, 1953

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, Field Team, Region V

Subject: Urova Docket

Here are four copies of the Owner's Consent To Lien.

A. B. Needham
Executive Officer, Field Team
Region V

Attachments

RECEIVED
JUL 6 1953

July 1, 1953

Mr. E. O. Binyon, Mining Engineer
Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

Dear Sir:

Enclosed are 6 copies of owners consent to lein on Lakota Lode which you have requested.

Mr. Imig was in error when he stated that he had mailed these consents to you and I noticed them in the file today. Hoping this is what you were asking for.

Yours truly,

UROVA COMPANY

W. R. Schaefer

WRS:caf

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Pennington, described as follows:1/

Lakota Lode No. 8,9, 10, 11, 12, 13, 14, 15, 16, 17, and 18

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Urowe Co. (A corporation organized in the State of Nebraska)

320 South Saddle Creek Road

Omaha, Nebraska

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 13th day of April, 1952.

Lakota Prospecting Company, Inc [Seal]

By Allen G. Wilson [Seal]
Secretary

_____ [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of South Dakota, County of Custer, described as follows:1/

Lakota Lode No. 8,9, 10, 11, 12, 13, 14, 15, 16, 17, and 18

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Urove Co. (A corporation organized in the State of Nebraska)
620 South Saddle Creek Road
Omaha, Nebraska

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 13th day of April, 1953.

Lakota Prospecting Company, Inc [Seal]

By Allen G. Wilson [Seal]
Secretary

_____ [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 13 1953

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

Dear Mr. Mittendorf:

This letter of authorization is in reference to application for aid in exploring project pursuant to DMEA Order No. 1, under the Defense Production Act of 1950, as amended, filed by this company with your office.

We hereby appoint and authorize Mr. C. Austin Sutherland and Mr. Morris S. Schwartz, of Washington, D. C. either jointly or severally, to represent us before the Defense Minerals Exploration Administration for the purpose of progressing and otherwise handling with your office our application originally filed with Mr. E. O. Bineyon, Rapid City Fields Office, School of Mines, Rapid City, South Dakota, on March 25, 1953, in the name of the Urova Company of 620 South Saddle Creek Road, Omaha, Nebraska, for loan of $47,300.00 toward prospecting and determining amount of uranium ore under the Lakota Lode claims situated in Custer County, South Dakota.

Very truly yours,

W. R. Schaefer Pres.

UROVA COMPANY
620 South Saddle Creek Road

CC: C. Austin Sutherland
Morris S. Schwartz

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

June 22, 1953

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, Field Team, Region V

Subject: Urova DMEA - 3054 and C. E. Weir dockets

Under separate cover are three prints each of proposed holes for the subject dockets to be included in their respective applications.

Also for your information about payroll tax items, there is attached a copy of a letter from our engineer and geologist in the field.

A. B. Needham
Executive Officer, Field Team
Region V

Attachment - 1

CC: Dutton
Redden
Binyon
Regional Dir., Rgn V
Files
Day Files

STANDARD FORM NO. 64

6/22/53 gla

Office Memorandum • UNITED STATES GOVERNMENT

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

DATE: June 16, 1953

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

SUBJECT: Application and Field Team Final Report DMEA Docket 3054 (uranium), Urova Co., applicant, 620 South Saddle Creek Rd., Omaha, Nebr., Lokota Lode group, esp. 818 inclusive, Secs. 23 and 26, T. 6 S., R. 1 E., Custer Co., S. Dak.

The application and Field Team report pertaining to the property identified in the subject above have been reviewed and discussed with H. D. Keiser, Bureau of Mines Member, Commodity Committee, and J. O. Hosted, Atomic Energy Commission.

Proposed Exploration

The Field Team recommends exploration by wagon drilling in two phases. In phase I 3500 feet would be drilled in about 100 holes at a total cost of 3,990.00. In phase II, which would be contingent upon obtaining favorable results in stage I, 5,000 feet would be drilled in about 140 holes. Work recommended by the Field Team represents a reduction in amount and modification of work proposed by the applicant. All exploration in phase I would be on five claims, Lakota Lodes Nos. 8, 10, 11, 12, and 15.

Comment

Uranium bearing minerals or radioactivity anomalies occur in ~~one in~~ sandy and clayey beds near the middle of the Dakota sandstone. Uranium bearing rock has been exposed in some trenches dug and intersected in a few shallow holes drilled by the applicant. Two samples of unstated nature taken by the applicant contain 0.15 and 1.06 U_3O_8. The applicant states no ore has been produced, but the Field Team states that 5 tons of ore averaging 0.15 percent U_3O_8 has been mined.

Concentrations of uranium minerals appear to follow northeast and northwest trends possibly related to jointing. Possible ore bodies are believed to be small but very near the surface. Although chances of successful outcome of exploration are uncertain, the Field Team and members of the local geological staff of the Atomic Energy Commission, who were consulted in connection with the application, believe some exploration is warranted. The shallow depth of the mineralized rock suggests that even small ore bodies might be mined successfully.

I concur with the Field Team's conclusions and recommendations.

Recommendations

I recommend that Government assistance for exploration be granted in the Government's proportionate share of a total cost for both phases of $8,721.00, subject to the conditions set forth in the Field Team report with respect to undertaking phase II.

Carlton P. Butler, Jr.

Copy to: E. Wm. Ellis (2)

IN REPLY REFER TO:

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

E. Wm. Ellis, DMEA Member
Uranium Commodity Committee
Arthur P. Butler, Jr., USGS Member
Uranium Commodity Committee
Application and Field Team Final Report DMEA Docket 3054 (uranium), Urova Co., applicant, 620 South Saddle Creek Rd., Omaha, Nebr., Lokota Lode group, esp. 818 inclusive, Secs. 23 and 26, T. 6 S., R. 1 E., Custer Co., S. Dak.

June 16, 1953

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Comment

Uranium bearing minerals or radioactivity anomalies occur in ~~one in~~ sandy and clayey beds near the middle of the Dakota sandstone. Uranium bearing rock has been exposed in some trenches dug and intersected in a few shallow holes drilled by the applicant. Two samples of unstated nature taken by the applicant contain 0.15 and 1.06 U_3O_8. The applicant states no ore has been produced, but the Field Team states that 5 tons of ore averaging 0.15 percent U_3O_8 has been mined.

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I concur with the Field Team's conclusions and recommendations.

Recommendations

I recommend that Government assistance for exploration be granted in the Government's proportionate share of a total cost for both phases of $8,721.00, subject to the conditions set forth in the Field Team report with respect to undertaking phase II.

Copy to: E. Wm. Ellis (2)

IN REPLY REFER TO:

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

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

June 16, 1953

Application and Field Team Final Report DMEA Docket 3054 (uranium), Urova Co., applicant, 620 South Saddle Creek Rd., Omaha, Nebr., Lokota Lode group, esp. 818 inclusive, Secs. 23 and 26, T. 6 S., R. 1 E., Custer Co., S. Dak.

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The Field Team recommends exploration by wagon drilling in two phases. In phase I 3500 feet would be drilled in about 100 holes at a total cost of 3,990.00. In phase II, which would be contingent upon obtaining favorable results in stage I, 5,000 feet would be drilled in about 140 holes. Work recommended by the Field Team represents a reduction in amount and modification of work proposed by the applicant. All exploration in phase I would be on four claims, Lakota Lodes Nos. 8, 10, 11, 12, and 15.

Comment

Uranium bearing minerals or radioactivity anomalies occur in one in sandy and clayey beds near the middle of the Dakota sandstone. Uranium bearing rock has been exposed in some trenches dug and intersected in a few shallow holes drilled by the applicant. Two samples of unstated nature taken by the applicant contain 0.15 and 1.06 U_3O_8. The applicant states no ore has been produced, but the Field Team states that 5 tons of ore averaging 0.15 percent U_3O_8 has been mined.

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Copy to: E. Wm. Ellis (2)

8/16/53 gla

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

June 15, 1953

Memorandum

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

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

Subject: Field Team Report, DMEA Docket 3054, Urova Co., 620 South Saddle Creek Road, Omaha, Nebraska.

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

It is recommended that the report be approved, and that an exploration loan be granted subject to the conditions set forth in the report as to phase II.

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

H. D. Keiser

H. D. Keiser

Attachment

OFFICE OF THE DIRECTOR

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

June 15, 1953

Memorandum

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

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

Subject: Field Team Report, DMEA Docket 3054, Urova Co., 620 South Saddle Creek Road, Omaha, Nebraska.

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

It is recommended that the report be approved, and that an exploration loan be granted subject to the conditions set forth in the report as to phase II.

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

H. D. Keiser

Attachment

June 2, 1953

Mr. J. H. Imig
Urova Company
620 South Saddle Creek Road
Omaha, Nebraska

Subject: DMEA-3054
Re: Exploration Assistance
Dakota Lode Group

My dear Mr. Imig:

The receipt of your application dated March 26, 1953 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3054 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-3054 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operations Control
and Statistics Division

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

June 2, 1953

Memorandum

To: Executive Officer, DMEA Field Team, Region V

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

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

DMEA - 3054 - Urova Company

ROBERT E. ADAMS

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

38226

DMEA-3054

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION V

Urova Company, Dakota Lode Group

Custer County, S. Dak.

E. O. Binyon, Mining Engineer
U. S. Bureau of Mines

J. A. Redden, Geologist
U. S. Geological Survey

May 7, 1953

DEFENSE MINERALS EXPLORATION
ADMINISTRATION
Report of Field Examination

by

E. O. Binyon, Mining Engineer
U. S. Bureau of Mines

J. A. Redden, Geologist
U. S. Geological Survey

Docket No:

Applicant: Urova Company
620 S. Saddle Creek Rd.
Omaha, Nebraska

Commodity: Uranium

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The applicant is the Urova Company, a Nebraska corporation with offices at 620 South Saddle Creek Rd., Omaha, Nebraska. All correspondence should be directed to either W. R. Schaefer, President, or J. H. Imig, Secretary-Treasurer of the company at this address. C. R. Kennedy, Newcastle, Wyoming is the Vice President and the local representative of the company.

Included in the application are 11 unpatented lode mining claims, the Lakota Lode No. 8 through No. 18, which with 13 other claims, are held by the company under an agreement of option to lease. The option and an extension, first granted the Minerals Equipment Company of Omaha, Nebraska by the Lakota Prospecting Co., Hot Springs, S. Dak., the owners of the claim, have been transferred by the Minerals Equipment Company to the Urova Company.

The eleven claims included in this application are in sections 23 and 26, T. 6 S., R. 1 E., B.H.B.M., Custer County, S. Dak., approximately 5 miles east and slightly south of Dewey S. Dak., a rail point on the Chicago, Burlington and Quincy railroad. Custer is approximately 33 miles northeast, and Edgemont 28 miles southeast of the claims. Access to Dewey from either Custer or Edgemont is by way of unimproved dirt roads which are maintained by the county. From Dewey to the claims the roads are in poor condition and during periods of bad weather, are practically impassable.

The property was examined in company with C. R. Kennedy and son on April 1, 1953 and approximately five hours were spent on the examination and in discussing the method, the location, and amount of exploration.

In the discussion it was pointed out that at present, exploration of the property on the scale proposed by the applicant was not warranted, but that a limited amount of exploration by wagon drilling should be done in those areas with the most favorable indications of mineralization.

Geology and other pertinent matters were discussed with Howard Stafford of the AEC field office at Hot Springs and he was in agreement that the property should be explored to a limited extent.

The Dakota sandstone is found on all 11 claims. Mineralization is apparently confined to one or possibly two horizons approximately 30 feet apart vertically in the formation. Principal minerals consisting mainly of carnotite with some autunite and schrockingerite occur for the most part in sandy and clay beds near the middle of the Dakota sandstone. The beds are relatively shallow and crop out as dip slopes. Little or no prospecting has been done in the lower part of the Dakota at a lower elevation and no mineralization has been found below the horizons mentioned.

Surface anomalies with the exposures of mineralization in the pits and information from drill holes indicate definite trends of mineralization to the northeast and southwest parallel to jointing in the sandstone, and it is possible that control of the mineralization maybe related to this jointing. The area in the northeast end of the Lakota Lode No. 12 claim maybe a locus of intersection of mineralized trends and is one of the favorable areas for exploration.

A small amount of ore, about 5 tons, assaying .15 U_3O_8 has been shipped from the Lakota Lode No. 11 and the applicant reports samples from the small workings on Lakota Lode No. 17 and Lakota Lode No. 8 assaying .15 and 1.06 U_3O_8 and .08 and .05 V_2O_5 respectively.

Mineralization in the upper horizon as noted on the Lakota Lode No. 8, 10, 11, and 15 appears to be low grade and somewhat limited in extent. No small rich pockets occur and in the area covered, the gieger counter reading did not indicate the presence of either small or large deposits of high grade ore. However, the mineralization as stated apparently does have a definite trend and it is possible that the proposed wagon drilling may disclose some deposits of ore in one or both horizons along this trend. Also, in this particular instance the geologic data that are obtained from the proposed drilling may be of value in establishing some criteria for determing the control of deposition.

The property warrants a limited amount of exploration by wagon drilling. The drilling should be confined to the most favorable

anomalies and in general to extend northeast from the northeast end of Dakota Lode No. 12 on to claims 10 and 11 and southwest across Dakota 12 on to 15. A few holes would serve to check the anomaly on the Lakota Lode No. 8. It is recommended that the work be done in two phases. Under Phase I, 100 holes averaging about 35 feet in depth or a total of 3,500 feet are to be drilled. A grid pattern with the holes spaced on 100 foot centers is recommended but a closer spacing may be permitted in some instances where more information on a particular area is necessary. If the results of Phase I are favorable the exploration would be continued in Phase II. For Phase II approximately 140 holes or an additional 5,000 feet of wagon drilling is recommended. The drilling under Phase II would be used to further explore the favorable areas and trends that may be disclosed by Phase I, and where additional holes on a closer spaced grid maybe necessary.

The applicant stated that he desired to conduct the project as proposed in the application under a long form contract, however, since the amount of exploration has been reduced and the wagon drilling is be contracted, the only other items of expense are supervision, drill site preparation and travel. It is therefore recommended that a short form contract be used and the work be done a a unit cost basis.

Work can be started within 10 days after signing of the contract and it is estimated that Phase I can be completed in 30 work days and Phase II in 45 work days, or about 3 months for the entire project.

An estimated cost of the work is as follows:

PHASE I	
Wagon Drilling - 3,500 ft. @ $1.14	$3,990.00
PHASE II	
Wagon Drilling - 5,000 ft. @ $1.14	$5,700.00
Total	$9,690.00
Total government participation	$8,721.00

NAME, LOCATION, AND DESCRIPTION OF THE PROPERTY

The property held by the Urova Company is locally known as the Lakota Lode group and consists of 11 unpatented lode mining claims, the Lakota Lode No. 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18. The claims, a contiguous group of 10 claims and 1 single claim, the Lakota Lode No. 17, just north of the group, are in sections 23 and 26, T. 6 S., R. 1 E., B.H.B.M., Custer County, S. Dak.

Dewey, a small community on the Chicago, Burlington and Quincy railroad is 5 miles west and slightly north of the property. Custer and Edgemont, S. Dak. and Newcastle, Wyoming, the nearest centers

for supplies and small mining equipment, are all approximately the same distance from the property, Custer being about 33 miles northeast, Edgemont 28 miles southeast and Newcastle 35 miles to the northwest.

Roads from the three towns to Dewey are maintained in fair conditions are are passable practically the year around. From Dewey to the property, the road is poor but servicable, except during bad weather when it becomes impassable.

The area covered by the claims is gently sloping and is mainly mesa country, which is cut by relatively few small canyons and ridges. Exploration will be confined almost entirely to the mesas or flat areas.

PROPERTY RIGHTS

Of the eleven claims included in the application, the Lakota Lode 9, 10, 11, 12, and 15 were located by H.Y. Cott, Wayne D. Waurin, and Robert J. Hanley, all of Hot Springs, S. Dak., and the Lakota Lode 8, 13, 14, 16, 17, and 18 were located by the Lakota Prospective Company, Inc., Hot Springs, S. Dak. H.Y. Cott is president of the company. An option to lease on the group was granted by the Lakota Prospecting Company to the Minerals Equipment Company, Omaha, Nebraska. This company in turn has transferred the option to the applicant. All claims are recorded with the Register of Deeds at Custer, Custer County, S. Dak., in Location Book No. 17 on Pages 522, 523, 524, 541, 542, 543, 545, and 551. Proof of Labor has also been filed on all claims.

The applicant was furnished with Owner's Consent to Lien forms and was advised to submit these with the application, but to date they have not been received.

Not here 6-5-53

GEOLOGY

The properties are located in the Dakota sandstone. Mineralization was observed on the Lakota Lode Claims 8, 11, 10, and 15. Carnotite, autunite, and schroeckingerite were present in small amounts. The mineralization is apparently confined to sandy and clayey beds approximately in the middle of the Dakota sandstone. The occurrence is a duplicate of that to the Lost Interest Claims (Weir, Henderson, and Schuh) located approximately 2 miles to the northwest. The mineralized beds crop out as a dip slope and are relatively close to the surface. Mineralization has not been found in lower horizons. Surface anomalies detectable by geiger counter and other prospecting work done by the applicant, indicate the mineralization has definite trends to the northeast and northwest parallel to jointing in the sandstone.

The exploratory work, which consists of trenches and wagon drill holes also indicates that the mineralization is relatively weak. Even small rich deposits such as on the Lost Interest Claims have not been found. One truckload of ore assaying an estimated 0.15% U_3O_8 has been shipped from the Lakota Lode No. 11 claim.

It is not too likely that any mineable deposits will be discovered on the property. The control of deposits by jointing should possibly be investigated. Mr. Stafford of the AEC was interested in the possible control of the deposits by jointing and believed that the trends should be investigated. The area on the northeast end of Lakota Lode No. 12 claim should be explored as a possible locus due to the intersection of mineralized trends.

Since apparently only one horizon, or possible 2 horizons, less than 30 feet apart is mineralized, exploration by shallow wagon hole drilling is feasible. An estimated 100 wagon drill holes to a 35 feet depth could adequately explore the trends of surface anomalies. They should be on approximate 100 foot centers and should be designated as Phase I.

Should results prove favorable an additional 5,000 feet of wagon drilling might be warranted as Phase II.

In considering the shallowness of the horizons and the great difference in cost between wagon drilling and core drilling, wagon drilling is the most feasible method for exploration at present.

PAST OPERATIONS

As indicated on the accompanying map, some of the anomalies on the Lakota Lode No. 8, 9, 10, 11, 12, 15, 16, and 17 have been partially explored by dozer trenches and wagon drilling. The trenches vary in depth from 2 to 3 feet to a maximum of about 10 feet. Maximum depth of wagon drill holes is 20 feet but in only a few holes was any indication of mineralization found much below 10 feet. One shipment of about 5 tons and assaying .15 V_3O_8 is reported to have been made from the Lakota Lode No. 11.

DESCRIPTION OF THE PROJECT

In the proposal by the applicant, the exploratory work was to include 6,100 feet of core drilling and 1,350 feet of wagon drilling and was to be done, as shown on the map, on all claims of the group.

In the discussion with the applicant, the field team proposed a less extensive program which would consist only on wagon drilling and be confined to the more favorable areas on the Lakota Lode No. 8 and along the apparent trend of mineralization on claims 10, 11, 12,

and 15. The applicant was in general agreement with the proposal but apparently was of the opinion that the work, as proposed in the application, would explore the property more effectively.

The indications of mineralization are not too extensive and are relatively weak and a significant discovery of sufficient size and grade to repay the loan may not be made. However, in the opinion of the field some exploration is warranted.

It is recommended that the property be explored by wagon drilling and that the project be conducted in two phases. Phase I on the preliminary stage of the work, is to consist of 100 holes of approximate depth of 35 feet, or a total of 3,500 feet, to prospect the two horizons in the Dakota sandstone, the upper of which is exposed in the present workings. The drilling as stated, to be confined to the anomalies and apparent trends on the Lakota No. 8, 10, 11, 12, and 15. If the results are favorable, additional drilling of approximately 140 holes or a total of 5,000 feet would be drilled to explore the anomalie and exposures on the remaining claims as well as to further explore the more favorable areas disclosed by Phase I drilling.

It is further recommended that a provision be made in the contract to have the applicant agree to assign authority to the AEC buying station at Edgemont to deduct royalty payments on any ore shipped from the property during and after completion of the project. If the property is not certified as a discovery, a refund of all royalty payments could be made to the applicant.

Work can be started within ten days after the contract is signed and it is estimated that it can be completed in 75 work days or 3 months.

ESTIMATE OF COSTS

	Cost	
	Total	per ft.
Independent Contracts		
Wagon drilling, 8500 @ $.75 with a move in - move out charge of $150.00.	6525.00 ~~$6,350.00~~	.768 ~~.747~~
Labor Supervision and Consultons		
Labor, none		
Supervisor, 3 months @ $450/mo.	1,350.00	.1588
Engineer - Geologist 1½ months $550/mo	825.00	.0971
Operating Supplies		
Gas and oil and miscellaneous for pickup, 6,000 miles @ .05 mi.	180.00	.0211
Operating Equipment		
Dozer rental 2 days @ $100/day	200.00	.0235
Pickup truck rental for 3 months @ $120/mo. (est.)	360.00	.0424

	Cost (Cont.)	
	Total	Per ft.
Initial Rehabilitation and repairs on buildings.	- -	- -
New Buildings	- -	- -
Miscellaneous		
Payroll taxes @ $1\frac{1}{2}$% of $1350.00	20.25	.0024
Assaying 90 samples @ $3.50/sample	315.00	.0371
Contingencies	100.00	.0118
Total	$9,700.25	1.1412

Phase I	
Wagon Drilling - 3500 ft. @ $1.14	$3,990.00
Phase II	
Wagon Drilling - 5000 ft. @ $1.14	5,700.00
Total	$9,690.00
Total government participation	$8,721.00

It will be noted that the unit cost of 1.14 is somewhat higher than has been allowed on other projects in the districts. This can be accounted for by the fact that the applicant, besides contracting the drilling, must rent all other equipment, even for transportation, and that accordingly a higher cost results when distributed over a relatively low drilling footage.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Region V
2908 Colfax Avenue South
Minneapolis 8, Minnesota

May 28, 1953

JUN 1 1953

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, Field Team, Region V

Subject: Application, Urova Co., Dakota Lode Group, Custer, S. Dak.

Here are three copies of an application together with the original and three copies of the Field Team Report covering the application submitted by the Urova Co.

A. B. Needham
Executive Officer, Field Team
Region V

Attachments

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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A. B. Needham
Executive Officer, Field Team
Region V

CC - C. E. Dutton
J. A. Redden
E. O. Binyon
Region V
files
df

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

JUN 1 1953

Not to be filled in by applicant

Docket No. DMEA-3054
Metal or Mineral
Date Received 6/1/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Urova Company (A Corporation organized in the state of Nebraska)
620 South Saddle Creek Road
Omaha, Nebraska

(*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 Claims known as Lakota Lode No. 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18, all being situated in Custer County, South Dakota

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee (option to lease)

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

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

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

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

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

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

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

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

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Any fissionable materials - Principally uranium.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[x] Money [ ] 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 March 26, 1953

Urova Company
(Applicant)

By [signature] Sec. Treas. ~~(President)~~

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

STATEMENTS IN SUPPORT OF APPLICATION FOR AID IN AN EXPLORATION PROJECT

UROVA CO.

(The numbers and letters below refer to the instruction number on the blank to which this sheet is attached)

For 1. (a) Officers are: W. R. Schaefer, President
620 So. Saddle Creek Road
Omaha, Nebraska

C. R. Kennedy, Vice-President
Newcastle, Wyoming

J. H. Imig, Secretary - Treas.
912 First National Bank Bldg.
Omaha, Nebraska

For 4. (a) We have completed 52 wagon drill holes to various depths from 10 feet to 20 feet, and have dug fifteen dozer pits of various sizes. See photostat attached. The claims are accessible by automobile.

4. (b) There has been no production from any of these claims. Samples submitted to the Hot Springs Sub-office of the Atomic Energy Commission were assayed by the A. E. C. as follows:

A. E. C. NO.	CLAIM	%eU308	%U308	%V205
12438	Lakota Lode #17	0.19	0.15	0.08
12439	Lakota Lode # 8	0.67	1.06	0.05
12447	Lakota Lode # 8	analysis pending		

The quantities and grades of the ore reserves are unknown.

4. (c) The properties consist principally of Dakota sandstone. The deposits are bedded and consist of otonite and carnotite. We wish to explore the properties to determine whether deposits exist in quantities and depths suitable for commercial production, and also to determine if there are deeper beds of fissionable materials. Assay maps are enclosed with this application.

4. (d) The claims are accessible by automobile, as a road is cut through the claims. The claims are four miles distant from Dewey, South Dakota, a railroad town. The buying depot of A. E. C. at Edgemont, South Dakota, is twenty-eight miles from the claims. Resident points are Edgemont, South Dakota, which is twenty-eight miles from the claims, and Newcastle, Wyoming, which is thirty miles.

4. (e) It is believed that manpower, materials, supplies, equipment, and water are all available in sufficient quantities. Electric power is six miles distant.

5. (b) We propose to wagon drill and core drill the indicated beds (See attached map) in which we have showings of minerals in various pits and drill holes as mapped.

5. (d) Our supervisor of operations has had fifteen years of experience in mining and drilling operations. We estimate the cost of the exploration work proposed at $47,365.00, computed as follows:

6. (a)	Independent contracts (See below)		
	Core drilling 6,100 feet at $4.00 per foot. . . .	$24,400.00	
	Wagon drilling 1,350 feet at $1.50 per foot . . .	2,025.00	
	Dozer work 110 hours at $10.00 per hour	1,100.00	$27,525.00
6. (b)	Labor supervision and consultants		
	Supervisor - $800.00 per month for 6 months . . .	$ 4,800.00	
	Dozer operator $600.00 per month for 6 months . .	3,600.00	
	Supervision and office.	2,700.00	
	Other labor at from $1.50 to $2.00 per hour . . .	3,240.00	14,340.00
6. (c)	Operating materials and supplies		1,000.00
6. (d)	Operating equipment		
	Equipment to be rented consists of core drill, wagon drill, dozer, and pick-up truck		
6. (f)	New buildings improvements installations		
	Portable tool house		1,500.00
6. (g)	Miscellaneous		
	Miscellaneous truck rental, transportation, assay, etc..	$ 2,000.00	
	Other items approximately	500.00	2,500.00
6. (h)	Contingencies		500.00
		TOTAL	$47,365.00

An estimate of the footage to be drilled in arriving at the costs set forth in 6 (a) above, as shown below:

WAGON DRILLING

CLAIM	NO. OF HOLES	DEPTH	TOTAL
Lode 8	12	30'	360'
9		None	
10	6	30½'	180'
11		None	
12	10	30'	300'
13		None	
14	3	30'	90'
15	14	30'	420'
16		None	
17		None	
18		None	
			1,350'

CORE DRILLING

NO. OF HOLES	DEPTH	TOTAL
12	150'	1,800'
1	150'	150'
4	250'	1,000'
3	250'	750'
2	150'	300'
1	150'	150'
	None	
10	150'	1,500'
1	150'	150'
1	150'	150'
1	150'	150'
		6,100'

ASSIGNMENT OF OPTION TO LEASE

THIS AGREEMENT, made and entered into this 5th day of December, 1952, by and between MINERAL EQUIPMENT CO., a corporation of Omaha, Nebraska, hereinafter called party of the first party, and URGVA CO., a corporation, of Omaha, Nebraska, hereinafter called the second party, WITNESSETH:

WHEREAS, first party is the holder of an option to lease entered into the 3rd day of November, 1952 between LAKOTA PROSPECTING CO., INC., a corporation of Hot Spring, South Dakota, and MINERAL EQUIPMENT CO., a corporation of Omaha, Nebraska, said option having been extended under a separate agreement on December 3, 1952, said lease covering the following described mining claims situated in Fall River County and Custer County, State of South Dakota:

LAKOTA LODE NO. 2, LAKOTA LODE NO. 3, LAKOTA LODE NO. 4, LAKOTA LODE NO. 8, LAKOTA LODE NO. 9, LAKOTA LODE NO. 10, LAKOTA LODE NO. 11, LAKOTA LODE NO. 12, LAKOTA LODE NO. 13, LAKOTA LODE NO. 14, LAKOTA LODE NO. 15, LAKOTA LODE NO. 16, LAKOTA LODE NO. 17, LAKOTA LODE NO. 18, LAKOTA LODE NO. 20, LAKOTA LODE NO. 21, LAKOTA LODE NO. 22, LAKOTA LODE NO. 23, LAKOTA LODE NO. 24, LAKOTA LODE NO. 27, LAKOTA LODE NO. 25, LAKOTA LODE NO. 26, LAKOTA LODE NO. 28, LAKOTA LODE NO. 29,

WHEREAS, Second Party desires to acquire said option from First Party, and the First Party is willing to transfer said option to Second Party;

NOW, THEREFORE, IT IS MUTUALLY AGREED that for and in consideration of $1.00 in hand paid to the first party by the second party the said option to lease is hereby transferred to Second Party.

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

MINERAL EQUIPMENT CO.

In the presence of

N. A. Brooker

By W R Schaefer
President
FIRST PARTY

URGVA CO.

N. A. Brooker

By J H Smig
Sec. Pres. ~~President~~
SECOND PARTY

EXTENSION OF OPTION TO LEASE

THIS AGREEMENT, Made and entered into this 3rd day of December, 1952, by and between LAKOTA PROSPECTING COMPANY, INC., a corporation, of Hot Springs, South Dakota, hereinafter called the first party, and MINERAL EQUIPMENT CO., a corporation, of Omaha, Nebraska, hereinafter called the second party, WITNESSETH:

WHEREAS, by an option to lease, bearing date of November 3, 1952, the first party gave to the second party the exclusive right to lease, on or before December 3, 1952, the following described mining claims situated in Fall River County and Custer County, State of South Dakota:

> LAKOTA LODE NO. 2, LAKOTA LODE NO. 3, LAKOTA LODE NO. 4, LAKOTA LODE NO. 8, LAKOTA LODE NO. 9, LAKOTA LODE NO. 10, LAKOTA LODE NO. 11, LAKOTA LODE NO. 12, LAKOTA LODE NO. 13, LAKOTA LODE NO. 14, LAKOTA LODE NO. 15, LAKOTA LODE NO. 16, LAKOTA LODE NO. 17, LAKOTA LODE NO. 18, LAKOTA LODE NO. 20, LAKOTA LODE NO. 21, LAKOTA LODE NO. 22, LAKOTA LODE NO. 23, LAKOTA LODE NO. 24, LAKOTA LODE NO. 27, LAKOTA LODE NO. 25, LAKOTA LODE NO. 26, LAKOTA LODE NO. 28, LAKOTA LODE NO. 29,

to which option to lease reference is hereby made for all and singular the terms, provisions and conditions thereof; and

WHEREAS, The Second Party desires an extension, and the First Party is willing to extend the period of said option to lease until June 30, 1953:

NOW, THEREFORE, IT IS MUTUALLY AGREED that for an in consideration of $1.00 in hand paid to the first party the said option to lease is hereby extended until June 30, 1953.

IN WITNESS WHEREOF, the parties hereto have hereunto

set their hands and seals, the day and year first above written.

LAKOTA PROSPECTING COMPANY, INC.

In the presence of

By Allen G. Wilson
Secretary
FIRST PARTY

MINERAL EQUIPMENT CO.

By
Vice-President
SECOND PARTY

OPTION TO LEASE

THIS AGREEMENT, Made and entered into this 3rd day of November, 1952 by and between LAKOTA PROSPECTING COMPANY, INC., a corporation, of Hot Springs, South Dakota, hereinafter called the first party, and MINERAL EQUIPMENT CO., a corporation, of Omaha, Nebraska, hereinafter called the second party, WITNESSETH:

That in consideration of the sum of $100.00 paid by the second party to the first party, simultaneously with the execution of this agreement, the receipt whereof is hereby acknowledged, the first party hereby gives to the second party the exclusive right to lease, on or before December 3, 1952, the mining claims hereinafter described upon the terms, provisions and conditions set forth in the form of lease annexed hereto, marked "Exhibit A," and hereby made a part hereof, and initialled, for identification, by the respective parties hereto. The following described mining claims situated in Fall River County and Custer County, State of South Dakota, are subject to this option:

LAKOTA LODE NO. 2, LAKOTA LODE NO. 3, LAKOTA LODE NO. 4, LAKOTA LODE NO. 8, LAKOTA LODE NO. 9, LAKOTA LODE NO. 10, LAKOTA LODE NO. 11, LAKOTA LODE NO. 12, LAKOTA LODE NO. 13, LAKOTA LODE NO. 14, LAKOTA LODE NO. 15, LAKOTA LODE NO. 16, LAKOTA LODE NO. 17, LAKOTA LODE NO. 18, LAKOTA LODE NO. 20, LAKOTA LODE NO. 21, LAKOTA LODE NO. 22, LAKOTA LODE NO. 23, LAKOTA LODE NO. 24, LAKOTA LODE NO. 27, LAKOTA LODE NO. 25, LAKOTA LODE NO. 26, LAKOTA LODE NO. 28, LAKOTA LODE NO. 29.

The aforesaid option may only be exercised by the second party serving upon the first party, at any time prior to the day named in the preceding paragraph hereof, written notice of its intention to exercise the same.

If the said option shall be exercised by the second party, as above specified, then, and in such event, the parties

hereto shall forthwith make, sign, acknowledge and deliver a mining lease, in respect of the aforesaid mining claims, in the form of lease annexed hereto, marked "Exhibit A."

It is expressly agreed that the time for the exercise of the said option and for the execution, acknowledgement and delivery of the said lease by the second party shall be of the essence of this agreement.

If the second party shall exercise the aforesaid option within the time hereinbefore fixed, and if the second party shall duly make, execute, acknowledge and deliver the aforesaid lease as hereinbefore set forth, then, and in that event, the said sum of $100.00, paid as consideration for this option, shall be credited upon the cash payment due under the said lease; but if the second party shall fail to exercise the aforesaid option, of if the second party shall fail to execute, acknowledge and deliver the aforesaid lease, as hereinbefore respectively prescribed, then, and in either of such events, the amount so paid as consideration for this option shall be retained by the first party in full satisfaction for granting this option and for holding the aforesaid premises for the aforesaid time, and, thereupon, this agreement shall become null and void.

Said second party agrees that it shall by or with competent personnel selected by itself enter upon and examine by drilling and other proper methods of mining exploration, with all reasonable diligence, the lands embraced within the aforesaid mining claims for the purpose of determining the presence, quality and value of carnotite and other uranium bearing ores. If this option to lease is not exercised by said second party, it is hereby agreed that said second party shall turn over to the undersigned Allen G. Wilson at Hot Springs, South Dakota, exclusively, any information said second party has obtained as

to the presence, quality and value of carnotite or other uranium bearing ores within said mining claims and shall also furnish to the said Allen G. Wilson at Hot Springs, South Dakota, exclusively, a copy of the work record for the drilling and exploration work done on each of said mining claims.

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

In the presence of

LAKOTA PROSPECTING COMPANY, INC.

By Allen G. Wilson
Secretary
FIRST PARTY

MINERAL EQUIPMENT CO.

By L R Kennedy
Vice-President
SECOND PARTY

LPCS
Byasen
MEC
Byd6RK

"Exhibit A"

MINING LEASE

THIS AGREEMENT, Made and entered into this _____ day of _____, 1952, by and between LAKOTA PROSPECTING COMPANY, INC., a corporation, of Hot Springs, South Dakota, hereinafter called the Lessor, and MINERAL EQUIPMENT CO., a corporation, of Omaha, Nebraska, hereinafter called the Lessee, WITNESSETH:

That the said Lessor for and in consideration of the cash payment and the royalties hereinafter reserved and the covenants and agreements hereinafter expressed, have granted, demised and let, and by these presents do grant, demise and let unto the said Lessee, free and clear of valid encumbrances, the following described lands and mining claims situated in Fall River County and Custer County, State of South Dakota:

LAKOTA LODE NO. 2, LAKOTA LODE NO. 3, LAKOTA LODE NO. 4, LAKOTA LODE NO. 8, LAKOTA LODE NO. 9, LAKOTA LODE NO. 10, LAKOTA LODE NO. 11, LAKOTA LODE NO. 12, LAKOTA LODE NO. 13, LAKOTA LODE NO. 14, LAKOTA LODE NO. 15, LAKOTA LODE NO. 16, LAKOTA LODE NO. 17, LAKOTA LODE NO. 18, LAKOTA LODE NO. 20, LAKOTA LODE NO. 21, LAKOTA LODE NO. 22, LAKOTA LODE NO. 23, LAKOTA LODE NO. 24, LAKOTA LODE NO. 27, LAKOTA LODE NO. 25, LAKOTA LODE NO. 26, LAKOTA LODE NO. 28, LAKOTA LODE NO. 29, together with the appurtenances.

TO HAVE AND TO HOLD the same unto the said Lessee for the term of three (3) years from the date hereof or so long thereafter as ore in commercial quantities is produced under the terms of this lease, unless sooner forfeited or determined through the violation of any of the covenants hereinafter reserved against said Lessee, or by voluntary abandonment thereof by said Lessee as hereinafter provided.

In consideration of said lease, the said Lessee does covenant and agree with the said Lessor as follows:

1. To pay the said Lessor the sum of $12.50 per acre in cash for the acreage contained within the first twenty (20) claims above described at the date of the execution of this lease.

2. To pay the said Lessor the sum of $12.50 per acre in cash for any acreage contained within the last four (4) claims above described if the said Lessee wishes to include any of said acreage within this lease at the date of the execution of the same.

3. Within 90 days from the date of this lease to enter upon said premises and work the same so as to take out, remove and sell therefrom carnotite and other valuable minerals and to continue such operations during the entire term of this lease.

4. To pay as a royalty to said Lessor twelve and one-half per cent (12½%) of the gross proceeds from the sale of all carnotite and all other valuable minerals removed therefrom; payments of said royalties to be made by the said Lessee to the said Lessor on or before the 15th day of each and every month, commencing 120 days from the date of this lease.

5. To deliver to the said Lessor the said premises in good order and condition without demand or further notice, upon termination of this lease or at any time that said lease may be abandoned.

6. To allow the said Lessor and its agents from time to time to enter upon and all parts of said demised premises for purposes of inspection.

7. To pay as due all expense, costs and other liability connected in any manner with its operations hereunder, and to keep currently in effect all Workmen's Compensation or other adequate public liability and property damage insurance protecting its operations hereunder, in full compliance with the laws of the State of South Dakota.

8. To surrender said premises to the said Lessor in case no work shall be done upon said Lode Mining Claims for a period of one hundred eighty (180) days continuously at any one time upon demand of the said Lessor.

All taxes validly levied and assessed against the personal property of the said Lessee on said premises shall be paid by it when due; all taxes validly levied and assessed against the property of said Lessor shall be paid by it when due.

Upon the violation of any covenant or covenants in the terms of this lease, it shall, at the option of the said Lessor, be forfeited and determined, and the said Lessor or its agents, may thereupon, after demand for possession thereof, enter upon said premises and dispossess all persons occupying the same.

Time and the manner of performance are the essence of this agreement between the parties hereto.

This lease and all of the terms thereof shall extend to and be binding upon the successors and lawful assigns of all of the parties hereto.

IN WITNESS WHEREOF, said parties have signed this lease the day and year first above written.

LAKOTA PROSPECTING COMPANY, INC.

ATTEST:

By_____
President
FIRST PARTY

_____
Secretary

MINERAL EQUIPMENT CO.

ATTEST:

By_____
President
SECOND PARTY

_____
Secretary

Note Page 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Rapid City Field Office
School of Mines Campus
Rapid City, South Dakota

May 26, 1953

Memorandum

To: A. B. Needham, Executive Officer, DMEA, Region V

From: E. O. Binyon, Rapid City Field Office

Subject: Application Docket No. 3012, Lost Interest Group, C. E. Weir, L. A. Henderson and Henry Schuh, Custer County, S. Dak.

The claims are in sec. 10, 14, and 15, T. 6 S., R. 1 E., B.H.B.M., Custer County, S. Dak. I overlooked the difference in the range in the report as well as on the map.

For the symbols and grade these are typographical errors that were missed. Obviously the V_3O8 should have been U_3O_8. The grades should read .09 to .21 U_3O_8 and .17 to .28 V_2O_5 on both page 2 and 6.

Perhaps I misunderstand the paragraph mentioning redrawing of the map. If it means a new map with more detail then it is questionable whether or not the applicant can be requested to go to the expense of making such a map as the cost would be excessive. There are no topographic or geologic maps of the area available except a small scale (1:125000) prepared in 1900. The AEC in Hot Springs has no map of this area. On May 19th the field team requested the applicant to send 5 additional copies of his map (we have no copy in this office) and he agreed to do so as soon as possible. To date, the maps have not been received.

If additional data, such as blocks, grid patterns, etc., are what Washington requires then these will be put on the maps as soon as we get them. The claim boundaries, as I remember, overlapped and there was a fraction or two but there seems to have been no conflict with other claims.

Roads and drill site preparations are to be done with a D-8 caterpillar which will also be used for the trenching. The amount of road and drill site preparation is relatively small, only 2 days being allowed in the cost estimate. However, some allowance had to be made as short stretches of road to some of the drill sites and some leveling may be necessary.

Wagon drill holes are to be a minimum size of 2-3/8" to 2-1/4".

As the Urova Co.'s property is in the same general area, 2-1/2 miles southeast, the paragraphs on the maps also apply to this company's application.

Note

/s/ E. O. Binyon

cc: Reg. Director, Region V
J. A. Redden
files

MINING RESEARCH CORPORATION
INCORPORATED
Box 356, Edgemont, So. Dakota

April 7, 1953

Mr. C. R. Kennedy
Newcastle, Wyoming

Dear Mr. Kennedy:

As a result of my recent visit with you to your mining property located near Dewey, So. Dakota and comprising the Lakota Group of claims, I submit herewith the following proposal for wagon drilling.

This proposal is subject to acceptance not later than July 1, 1953.

It is our understanding that the range of hole depths shall be from 40 feet to 60 feet and that a total of 76 holes averaging 50 feet in depth are to be drilled. We understand also that the holes are not to be drilled upon a coordinate pattern but upon a random pattern, that the holes will be spotted in advance, that collar casings are not to be furnished by us: that stakes are sufficient to plug the holes after drilling, that no holes will be shallower than 40 feet, that no holes will be deeper than 60 feet; that all holes are to be drilled in the Dakota sandstone and that the hole distribution is as follows:

Claim	No. of Holes
Lakota No. 15	23
12	11
10	7
16	1
8	25
11	7
17	1
18	1
TOTAL	76 Holes

Our estimate is based upon dry drilling and upon recovering samples with a simple sampling device at a minimum of 2 ft. intervals. Our estimate does not include any service other than drilling and collecting of samples. We presume that the sample containers will be furnished by you. We pressume also that during the period of drilling your representative will be present to point out the location of holes to be drilled, to receive the samples, and to check the depth of each hole upon completion.

Based upon the above considerations we quote as follows:

76 Holes, or 3800 feet of 2¼ inch diameter wagon drill hole @ 75 cents per foot -	$2,850.00
Move-in charge	75.00
Move-out charge	75.00
Total	$3,000.00

In event that the total footage of hole drilled should exceed 5,000 feet; for that footage in excess of 5,000 feet we quote a price of 70 cents per foot.

Drilling will begin not later than 30 days from date of contract.

Respectfully submitted,

MINING RESEARCH CORPORATION

Clifton W. Livingston

Clifton W. Livingston, Pres.

CWL;hl

UNITED STATES
DEPARTMENT OF THE INTERIOR
U. S. Bureau of Mines
BUREAU OF MINES
1012 Flood Building
870 Market Street
San Francisco 2, Calif.

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300

SAN FRANCISCO, CALIF.
MAY 28
6 30PM
1953
RINCON ANNEX

Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

FIRST CLASS

FIRST CLASS

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INCORPORATED
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Respectfully submitted,

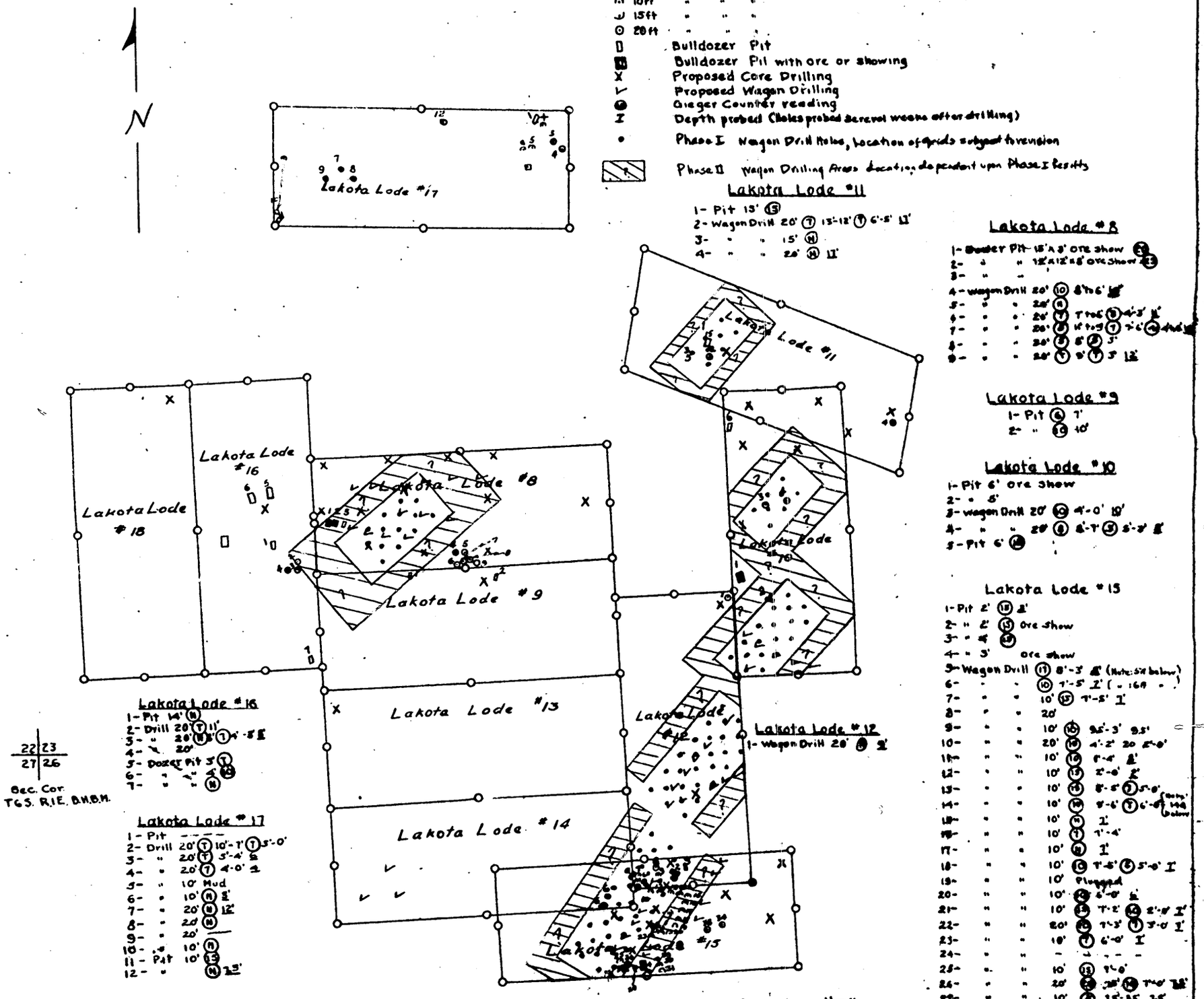
MINING RESEARCH CORPORATION

Clifton W. Livingston

Clifton W. Livingston, Pres.

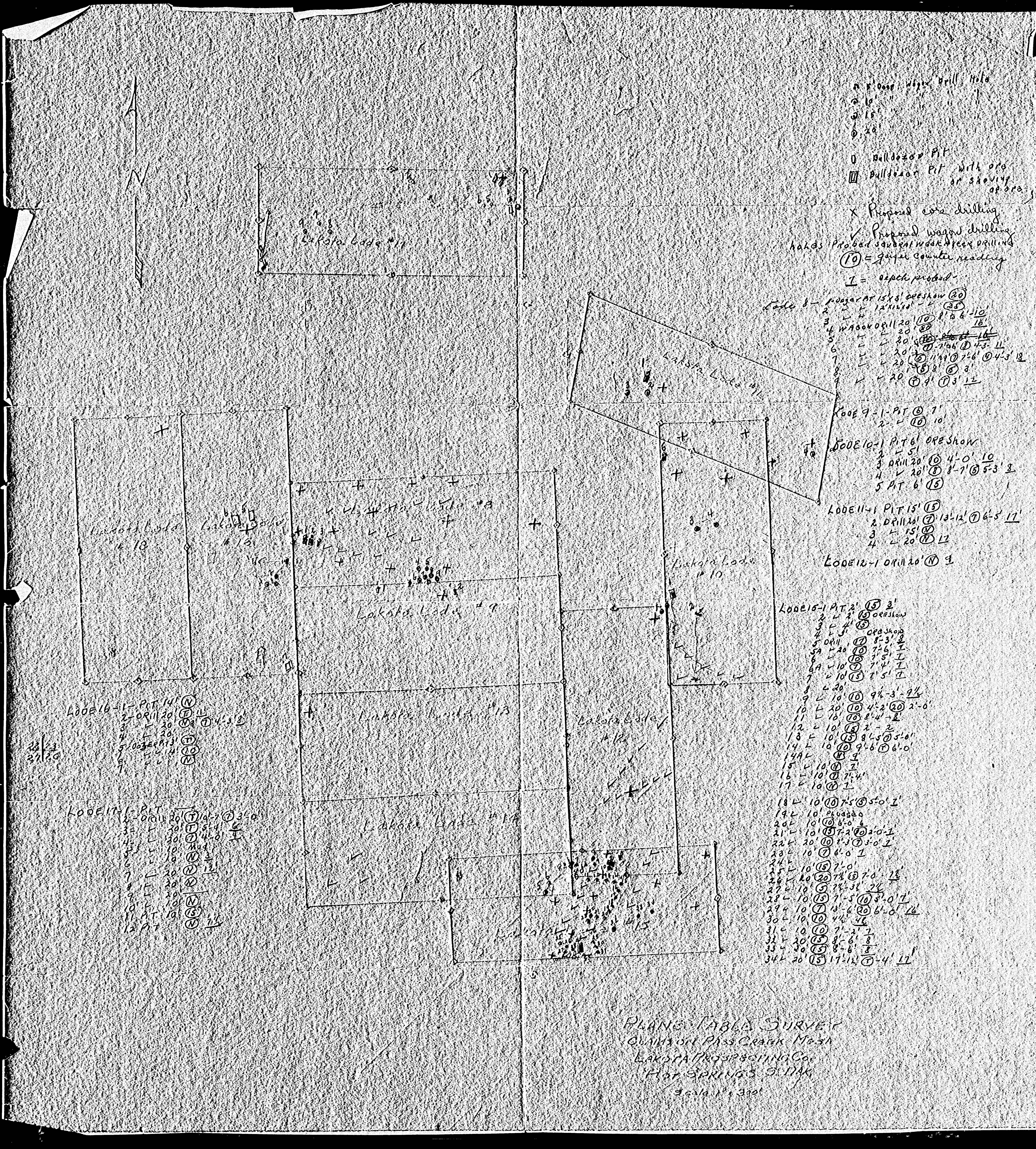
CWL;hl

DMEA 3054

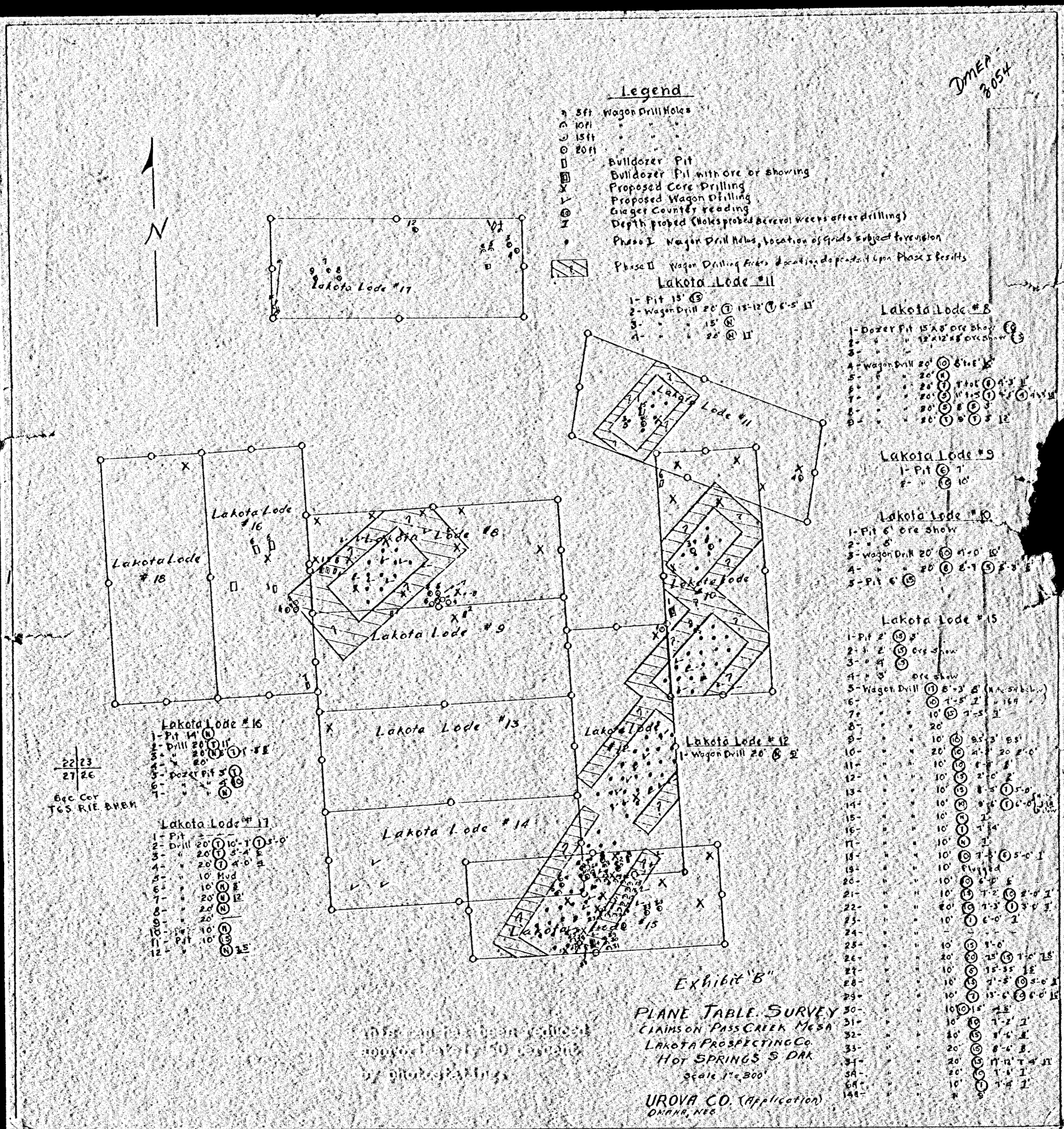


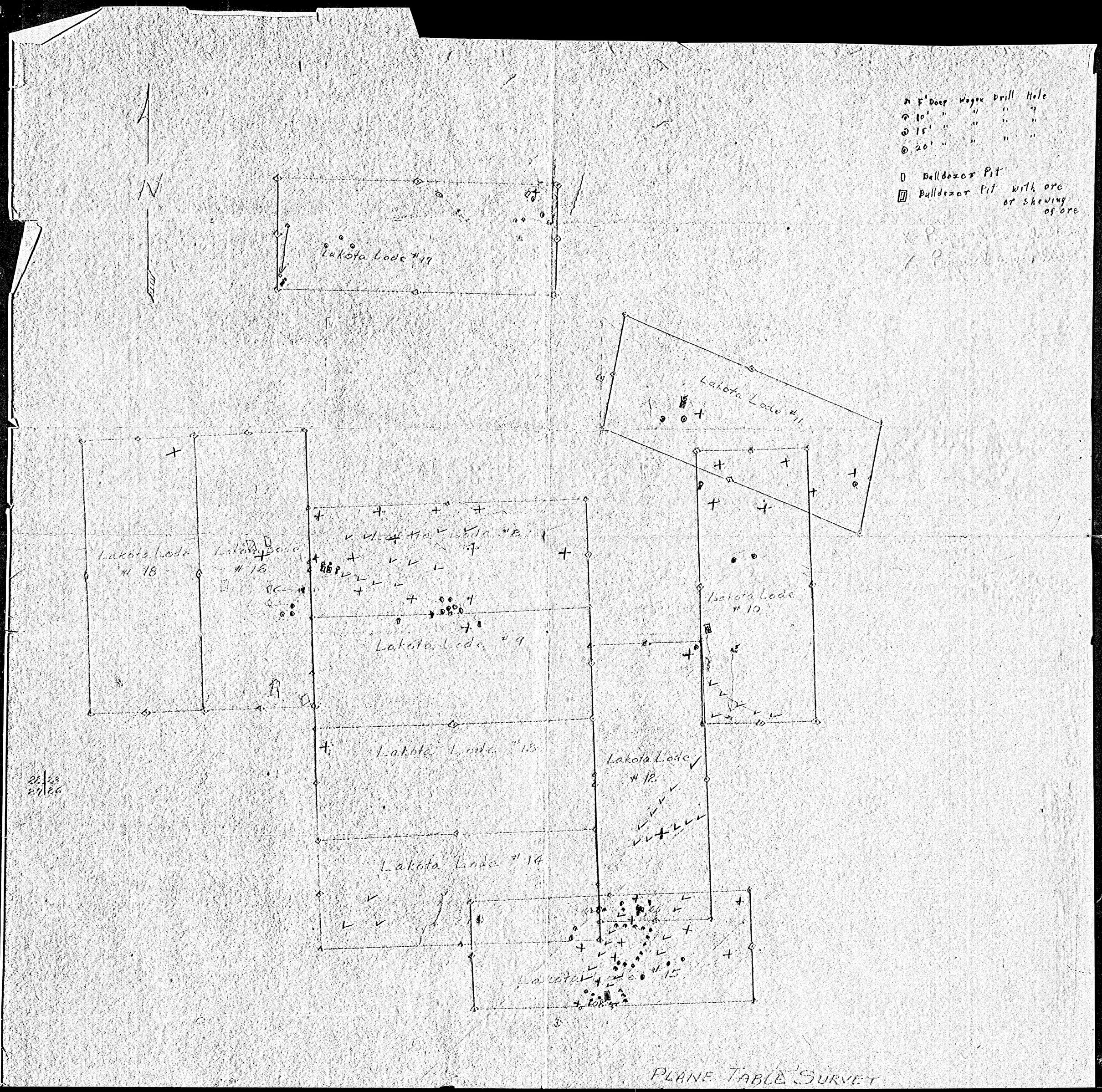
This map has been reduced approximately 50 percent by photostating.

DMEA-3054

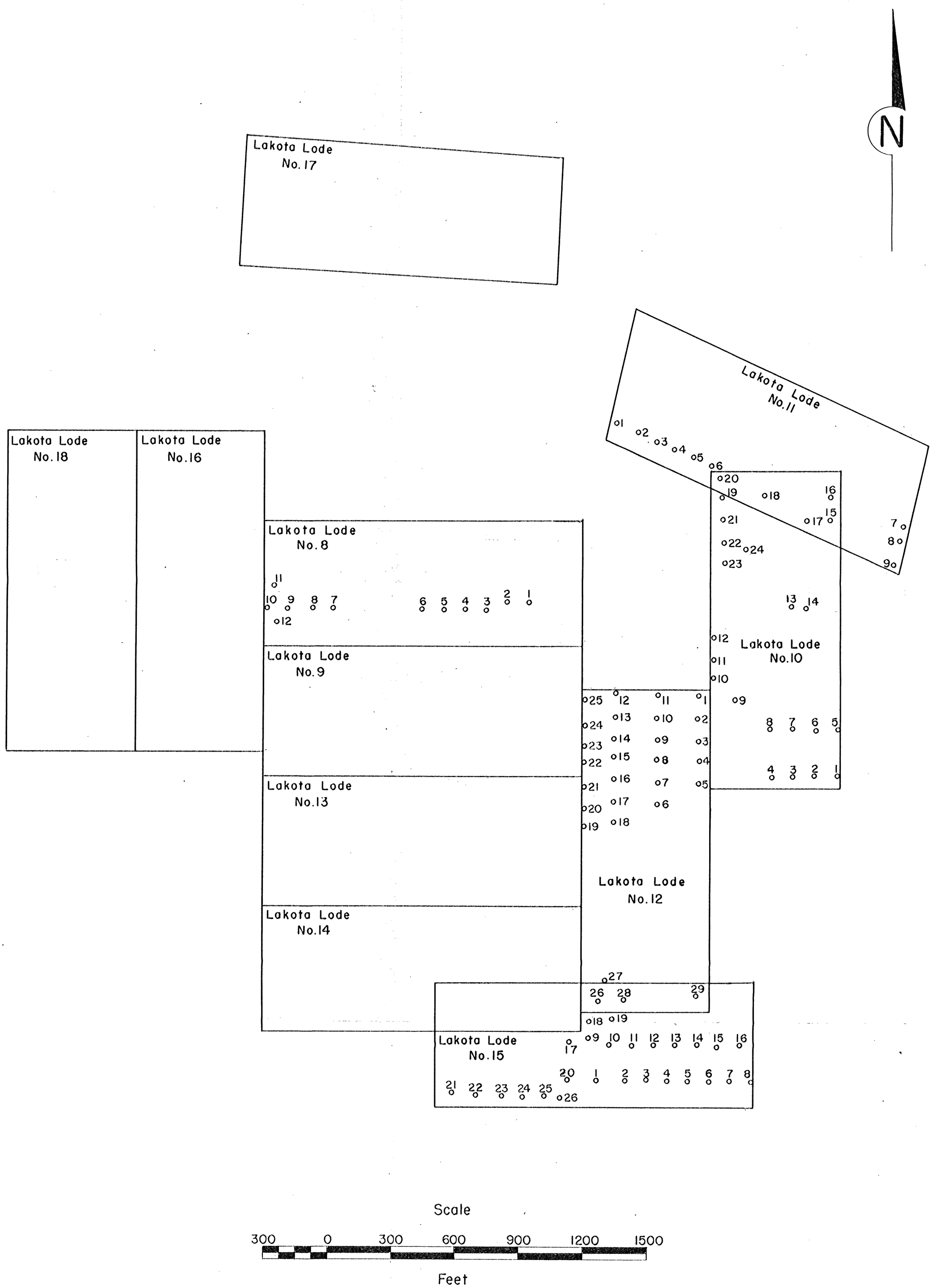

N
Lakota Lode #11
Lakota Lode #16
Lakota Lode #18
Lakota Lode #15
Lakota Lode #8
Lakota Lode #9
Lakota Lode #10
Lakota Lode #13
Lakota Lode #12
Lakota Lode #14
Lakota Lode #15
5' Deep Wagon Drill Hole
10' " "
15' " "
20' " "
Bulldozer Pit
Bulldozer Pit with ore or showing of ore.
X Proposed core drilling
✓ Proposed wagon drilling
holes probed several weeks after drilling
(10) = geiger counter reading
7 = depth probed
Lode 8 - 1 DOZER PIT 15'x3' ORESHOW (20)
2 ✓ ✓ 12'x12'x8' - ✓ (25)
3 ✓ ✓
4 WAGON DRILL 20' (10) 8' to 6' - 10'
5 ✓ ✓ 20' (80) 16'
6 ✓ ✓ 20' (T) -7'to6' (8) 4-3- 11
7 ✓ ✓ 20' (5) 11'to9' (T) 7'-6' (4) 4-3' 18
8 ✓ ✓ 20' (5) 8' (5) 3'
9 ✓ ✓ 20 (T) 4' (T) 3' 12
LODE 9 - 1 - PIT (6) 7'
2 - ✓ (10) 10'
LODE 10 - 1 PIT 6' ORESHOW
2 ✓ 5'
3 DRILL 20' (10) 4'-0' 10
4 ✓ 20' (8) 8'-7' (5) 5-3' 8
5 PIT 6' (15)
LODE 11 - 1 PIT 15' (15)
2 DRILL 20' (T) 13'-12' (T) 6-5' 17'
3 ✓ 15' (N)
4 ✓ 20' (N) 17
LODE 12 - 1 DRILL 20' (N) 9
LODE 15 - 1 PIT 2' (15) 3'
2 ✓ 2' (15) ORESHOW
3 ✓ 4' (15)
4 ✓ 3' ORESHOW
5 DRILL (17) 8'-3' 8
5A ✓ 20' (10) 7'-6' 7
6 ✓ (10) 7'-5' 7
6A ✓ 10' (T) 7'-4' 7
7 ✓ 10' (15) 7'-5' 7
8 ✓ 20'
9 ✓ 10' (10) 9½'-3' - 9½
10 ✓ 20' (10) 4'-2' (20) 2'-0'
11 ✓ 10' (10) 8'-4' - 8'
12 ✓ 10' (15) 2' - 2
13 ✓ 10' (15) 8'-5' (T) 5'-0'
14 ✓ 10' (10) 9'-6' (T) 6'-0'
14A ✓ (N) 9'
15 ✓ 10' (N) 7'
16 ✓ 10' (T) 7'-4'
17 ✓ 10' (N) 7'
18 ✓ 10' (10) 7'-5' (5) 5'-0' 7'
19 ✓ 10' PLUGGED
20 ✓ 10' (10) 6'-0' 6
21 ✓ 10' (15) 7'-2' (10) 2'-0' 7'
22 ✓ 20' (10) 7'-3' (T) 3'-0' 7'
23 ✓ 10' (T) 6'-0' 7
24 ✓
25 ✓ 10' (15) 7'-0'
26 ✓ 20' (20) 7½' (5) 7'-0' 7½'
27 ✓ 10' (5) 7½'-3½' 7½'
28 ✓ 10' (15) 7'-5' (10) 5'-0' 7'
29 ✓ 10' (T) 13'-6' (20) 6'-0' 16'
30 ✓ 10' (10) 4½' 4½
31 ✓ 10 (10) 7'-2' 7
32 ✓ 20' (15) 8'-6' 8
33 ✓ 20' (15) 8'-6' 8
34 ✓ 20' (15) 17'-12' (T) -4' 17'
LODE 16 - 1 - PIT 14' (N)
2 - DRILL 20' (T) 11' (T) 4'-3' 8'
3 ✓ 20' (N)
4 ✓ 20'
5 DOZER PIT 13' (T)
6 ✓ ✓ 14' (10)
7 ✓ ✓ (N)
22 | 23
27 | 26
LODE 17 - 1 - PIT
2 - DRILL 20' (T) 10'-7' (T) 3'-0'
3 ✓ 20' (T) 5'-4' 6
4 ✓ 20' (T) 4'-0' 4
5 ✓ 10' Mud
6 ✓ 10' (N) 3
7 ✓ 20' (N) 12
8 ✓ 20' (N)
9 ✓ 20'
10 ✓ 10' (N)
11 PIT 10' (15)
12 PIT (N) 7'
PLANE TABLE SURVEY
CLAIMS ON PASS CREEK MESA
LAKOTA PROSPECTING CO.
HOT SPRINGS S. DAK.
Scale 1" = 300'

DMEA 3054


Legend
5ft Wagon Drill Holes
10ft " " "
15ft " " "
20ft " " "
Bulldozer Pit
Bulldozer Pit with ore or showing
Proposed Core Drilling
Proposed Wagon Drilling
Geiger Counter reading
Depth proped (Holes probed several weeks after drilling)
Phase I Wagon Drill Holes, Location of Grids subject to revision
Phase II Wagon Drilling Holes Location dependent upon Phase I Results
N
Lakota Lode #17
Lakota Lode #11
1- Pit 15' (S)
2- Wagon Drill 20' (T) 15-12' (T) 6'-5' 11'
3- " " 15' (N)
4- " " 20' (N) 11'
Lakota Lode #8
1- Dozer Pit 15 x 8' ore show (C)
2- " " 12' x 12' x 8' ore show (S)
3- " "
4- Wagon Drill 20' (10) 8'-6' 8'
5- " " 20' (8)
6- " " 20' (7) 7'-0' (8) 4'-3' 1'
7- " " 20' (5) 11'-1.5 (1) 4'-1 (4) 4'-3' 11
8- " " 20' (5) 8' (5) 3'
9- " " 20' (7) 5' (7) 5' 12'
Lakota Lode #9
1- Pit (6) 7'
2- " (10) 10'
Lakota Lode #10
1- Pit 6' ore show
2- " 6'
3- Wagon Drill 20' (10) 4'-0' 10'
4- " " 20' (8) 2'-7 (5) 5'-3' 5'
5- Pit 6' (15)
Lakota Lode #15
1- Pit 2' (15) 3'
2- " 2' (15) ore show
3- " 4' (15)
4- " 3' ore show
5- Wagon Drill (11) 8'-3' 8' (N.A. Sub Lw.)
6- " " (10) 7'-5' 7' " 169 "
7- " " 10' (15) 7'-5' 7'
8- " " 20'
9- " " 10' (6) 9.5'-3' 8.5'
10- " " 20' (10) 4'-2' 20 2'-0'
11- " " 10' (15) 8'-4' 8'
12- " " 10' (15) 2'-0' 2'
13- " " 10' (15) 8'-5' (1) 5'-0'
14- " " 10' (14) 9'-6' (1) 6'-0' 11
15- " " 10' (N) 2'
16- " " 10' (1) 7'-4'
17- " " 10' (N) 1'
18- " " 10' (10) 7'-5' (6) 5'-0' 1'
19- " " 10' flagged
20- " " 10' (10) 6'-0' 5'
21- " " 10' (15) 7'-2' (10) 2'-0' 1'
22- " " 20' (15) 7'-3' (1) 3'-0' 1'
23- " " 10' (1) 6'-0' 1'
24- " " — — —
25- " " 10' (15) 7'-0'
26- " " 20' (20) 25' (15) 7'-0' 25'
27- " " 10' (6) 15'-35' 15'
28- " " 10' (5) 7'-5' (10) 5'-0' 1'
29- " " 10' (7) 13'-6' (10) 6'-0' 15'
30- " " 10 (10) 15' 15'
31- " " 10' (10) 7'-2' 1'
32- " " 10' (15) 8'-6' 8'
33- " " 20' (15) 8'-6' 8'
34- " " 20' (15) 11'-11' 7'-4' 11'
58- " " 20' (6) 7'-8' 1'
64- " " 10' (1) 7'-4' 1'
148- " " " 5'
Lakota Lode #16
Lakota Lode #18
Lakota Lode #8
Lakota Lode #9
Lakota Lode #10
Lakota Lode #13
Lakota Lode #14
Lakota Lode #15
Lakota Lode #16
1- Pit 14' (N)
2- Drill 20' (T) 11'
3- " 20' (N) 5' (T) 1'-5' 5'
4- " 20'
5- Dozer Pit 5' (T)
6- " " 5' (10)
7- " " (N)
Lakota Lode #12
1- Wagon Drill 20' (6) 5'
Lakota Lode #17
1- Pit — — —
2- Drill 20' (T) 10'-1 (T) 5'-0'
3- " 20' (T) 5'-4' 5'
4- " 20' (T) 4'-0' 5'
5- " 10' Mud
6- " 10' (N) 5'
7- " 20' (N) 12'
8- " 20' (N)
9- " 20'
10- Pit 10' (N)
11- Pit 10' (S)
12- " (N) 25'
22 23
27 26
Bgc Cor
T6S R1E B.H.M.
Exhibit "B"
PLANE TABLE SURVEY
CLAIMS ON PASS CREEK MESA
LAKOTA PROSPECTING CO.
HOT SPRINGS S DAK
Scale 1"=300'
UROVA CO. (Application)
OMAHA, NEB.



PLANE TABLE SURVEY

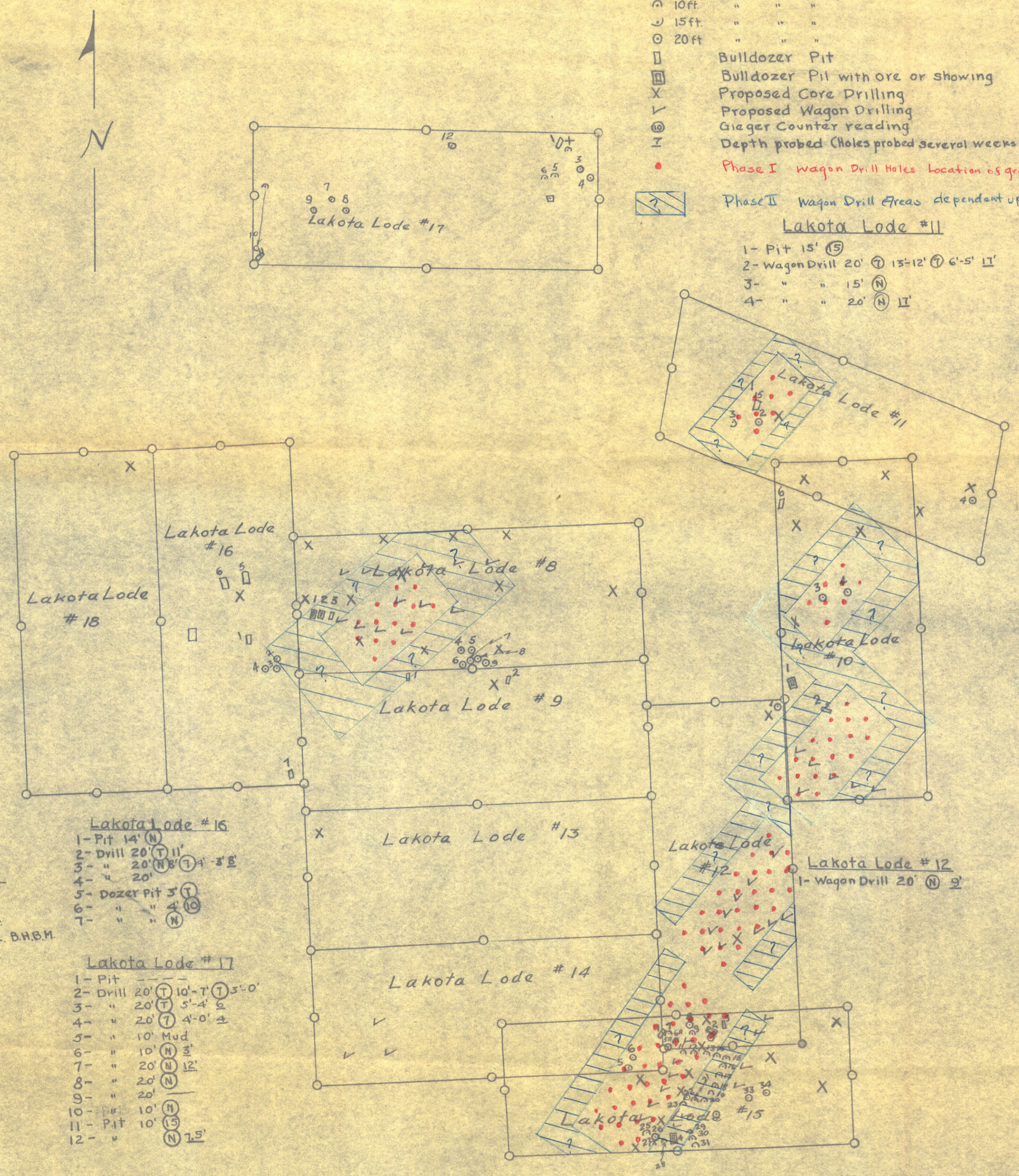


Urova Company. D.M.E.A. Docket 3054. Contract E-603. Lakota Lode Claims, 1st. stage.

DMEA-3054

Legend

- 5 ft. Wagon Drill Holes
- 10 ft. " " "
- 15 ft. " " "
- 20 ft " " "
- Bulldozer Pit
- Bulldozer Pit with ore or showing
- X Proposed Core Drilling
- V Proposed Wagon Drilling
- (10) Gieger Counter reading
- I Depth probed (Holes probed several weeks after drilling)
- Phase I Wagon Drill Holes Location of grids subject to revision
- Phase II Wagon Drill Areas dependent upon Phase I results.



Lakota Lode #11

1- Pit 15' (15)
2- Wagon Drill 20' (T) 13'-12' (T) 6'-5' 17'
3- " " 15' (N)
4- " " 20' (N) 17'

Lakota Lode #8

1- Dozer Pit 15'x3' ore show (20)
2- " " 12'x12'x8' ore show (25)
3- " "
4- wagon Drill 20' (10) 8' to 6' 10'
5- " " 20' (N)
6- " " 20' (T) 7' to 6' (8) 4'-3' 11'
7- " " 20' (5) 11' to 9 (T) 7'-6' (4) 4 to 3' 18'
8- " " 20' (5) 8' (5) 3'
9- " " 20' (T) 9' (T) 3' 12'

Lakota Lode #9

1- Pit (6) 7'
2- " (10) 10'

Lakota Lode #10

1- Pit 6' ore show
2- " 5'
3- wagon Drill 20' (10) 4'-0' 10'
4- " " 20' (8) 8'-7' (5) 5'-3' 8'
5- Pit 6' (15)

Lakota Lode #15

1- Pit 2' (15) 3'
2- " 2' (15) ore show
3- " 4' (15)
4- " 3' ore show
5- Wagon Drill (17) 8'-3' 8' (Note: 5A below)
6- " " (10) 7'-5' 7' (" : 6A ")
7- " " 10' (15) 7'-5' 7'
8- " " 20'
9- " " 10' (10) 9.5'-3' 9.5'
10- " " 20' (10) 4'-2' 20 2'-0'
11- " " 10' (10) 8'-4' 8'
12- " " 10' (15) 2'-0' 2'
13- " " 10' (15) 8'-5' (T) 5'-0'
14- " " 10' (10) 9'-6' (T) 6'-0' (Note: 14a below)
15- " " 10' (N) 7'
16- " " 10' (T) 7'-4'
17- " " 10' (N) 7'
18- " " 10' (10) 7'-5' (5) 5'-0' 7'
19- " " 10' Plugged
20- " " 10' (10) 6'-0' 6'
21- " " 10' (15) 7'-2' (10) 2'-0' 7'
22- " " 20' (10) 7'-3' (7) 3'-0' 7'
23- " " 10' (7) 6'-0' 7'
24- " " — — — — —
25- " " 10' (15) 7'-0'
26- " " 20' (20) 7.5' (15) 7'-0' 7.5'
27- " " 10' (5) 7.5'-3.5' 7.5'
28- " " 10' (15) 7'-5' (10) 5'-0' 7'
29- " " 10' (7) 13'-6' (20) 6'-0' 16'
30- " " 10' (10) 4.5' 4.5'
31- " " 10' (10) 7'-2' 7'
32- " " 20' (15) 8'-6' 8'
33- " " 20' (15) 8'-6' 8'
34- " " 20' (15) 17'-12' T 4' 17'
5A- " " 20' (10) 7'-6' 7'
6A- " " 10' (7) 7'-4' 7'
14a- " " N 9

Lakota Lode #16

1- Pit 14' (N)
2- Drill 20' (T) 11'
3- " 20' (N) 8' (7) 4'-3' 8'
4- " 20'
5- Dozer Pit 3' (T)
6- " " 4' (10)
7- " " (N)

Lakota Lode #17

1- Pit — — — —
2- Drill 20' (T) 10'-7' (7) 3'-0'
3- " 20' (T) 5'-4' 6
4- " 20' (7) 4'-0' 4
5- " 10' Mud
6- " 10' (N) 3'
7- " 20' (N) 12'
8- " 20' (N)
9- " 20' —
10- " 10' (N)
11- Pit 10' (15)
12- " (N) 7.5'

22	23
27	26

Sec. Cor.
T6S. R1E. B.H.B.M.

Exhibit "B"

PLANE TABLE SURVEY

CLAIMS ON PASS CREEK MESA
LAKOTA PROSPECTING CO.
HOT SPRINGS S. DAK.

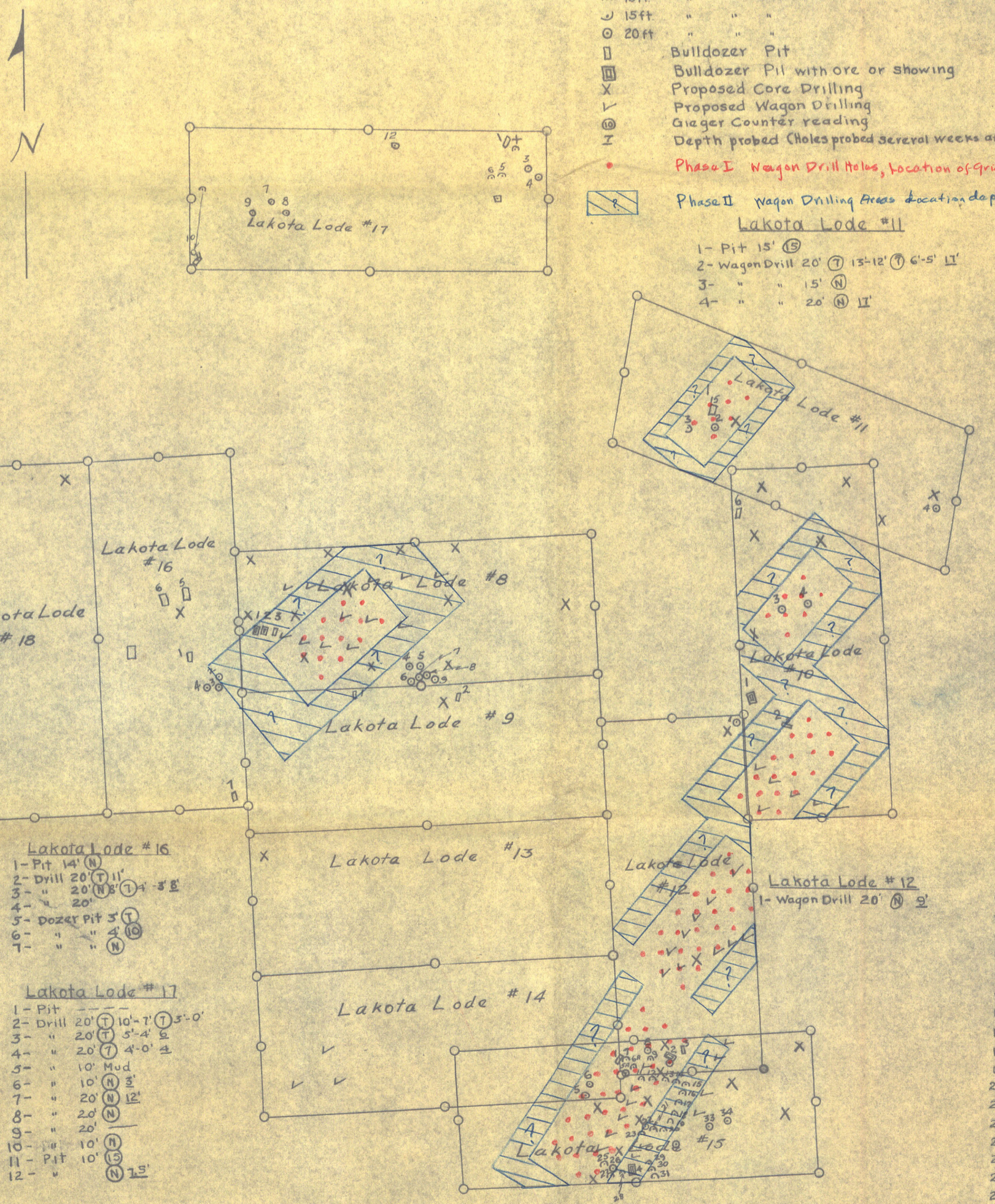
Scale 1" = 300'

UROVA CO. (Application)
OMAHA, NEB.

DMEA 3054

Legend

- 5 ft. Wagon Drill Holes
- 10 ft. " " "
- 15 ft " " "
- 20 ft " " "
- Bulldozer Pit
- Bulldozer Pit with ore or showing
- X Proposed Core Drilling
- Proposed Wagon Drilling
- (10) Gieger Counter reading
- I Depth probed (Holes probed several weeks after drilling)
- Phase I Wagon Drill Holes, Location of Grids subject to revision
- Phase II Wagon Drilling Areas Location dependent upon Phase I Results



Lakota Lode #11

1- Pit 15' (15)
2- Wagon Drill 20' (T) 13'-12' (T) 6'-5' 11'
3- " " 15' (N)
4- " " 20' (N) 11'

Lakota Lode #8

1- Dozer Pit 15'x3' ore show (20)
2- " " 12'x12'x8' ore show (25)
3- " "
4- wagon Drill 20' (10) 8' to 6' 10'
5- " " 20' (N)
6- " " 20' (T) 7' to 6 (8) 4'-3' 11'
7- " " 20' (5) 11' to 9 (T) 7'-6' (4) 4' to 3' 18'
8- " " 20' (5) 8' (5) 3'
9- " " 20' (T) 9' (T) 3' 12'

Lakota Lode #9

1- Pit (6) 7'
2- " (10) 10'

Lakota Lode #10

1- Pit 6' ore show
2- " 5'
3- wagon Drill 20' (10) 4'-0' 10'
4- " " 20' (8) 8'-7' (5) 5'-3' 8'
5- Pit 6' (15)

Lakota Lode #15

1- Pit 2' (15) 3'
2- " 2' (15) ore show
3- " 4' (15)
4- " 3' ore show
5- Wagon Drill (17) 8'-3' 8' (Note: 5A below)
6- " " (10) 7'-5' 7' (" 16A ")
7- " " 10' (15) 7'-5' 7'
8- " " 20'
9- " " 10' (10) 9.5'-3' 9.5'
10- " " 20' (10) 4'-2' 20 2'-0'
11- " " 10' (10) 8'-4' 8'
12- " " 10' (15) 2'-0' 2'
13- " " 10' (15) 8'-5' (7) 5'-0'
14- " " 10' (10) 9'-6' (T) 6'-0' (Note: 14A below)
15- " " 10' (N) 7'
16- " " 10' (7) 7'-4'
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18- " " 10' (10) 7'-5' (5) 5'-0' 7'
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25- " " 10' (15) 7'-0'
26- " " 20' (20) 7.5' (15) 7'-0' 7.5'
27- " " 10' (5) 7.5'-3.5' 7.5'
28- " " 10' (15) 7'-5' (10) 3'-0' 7'
29- " " 10' (7) 13'-6' (20) 6'-0' 16'
30- " " 10' (10) 4.5' 4.5'
31- " " 10' (10) 7'-2' 7'
32- " " 20' (15) 8'-6' 8'
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34- " " 20' (13) 17'-12' T 4' 17'
5A- " " 20' (10) 7'-6' 7'
6A- " " 10' (7) 7'-4' 7'
14A- " " N 9'

Lakota Lode #16

1- Pit 14' (N)
2- Drill 20' (T) 11'
3- " 20' (N) 8' (7) 4'-3' 8'
4- " 20'
5- Dozer Pit 5' (T)
6- " " 4' (10)
7- " " (N)

Lakota Lode #17

1- Pit — — — —
2- Drill 20' (T) 10'-7' (T) 5'-0'
3- " 20' (T) 5'-4' 6
4- " 20' (7) 4'-0' 4
5- " 10' Mud
6- " 10' (N) 3'
7- " 20' (N) 12'
8- " 20' (N)
9- " 20' —
10- " 10' (N)
11- Pit 10' (15)
12- " (N) 7.5'

22	23
27	26

Sec. Cor.
T6S. R1E. B.H.B.M.

Exhibit "B"

PLANE TABLE SURVEY

CLAIMS ON PASS CREEK MESA
LAKOTA PROSPECTING Co.
HOT SPRINGS S. DAK.

Scale 1" = 300'

UROVA CO. (Application)
OMAHA, NEB.

DMEA-3054

Legend

- 5ft. Wagon Drill Holes
- 10ft. " " "
- 15ft. " " "
- 20ft " " "
- Bulldozer Pit
- Bulldozer Pit with ore or showing
- X Proposed Core Drilling
- Proposed Wagon Drilling
- Gieger Counter reading
- Depth probed (Holes probed several weeks after drilling)
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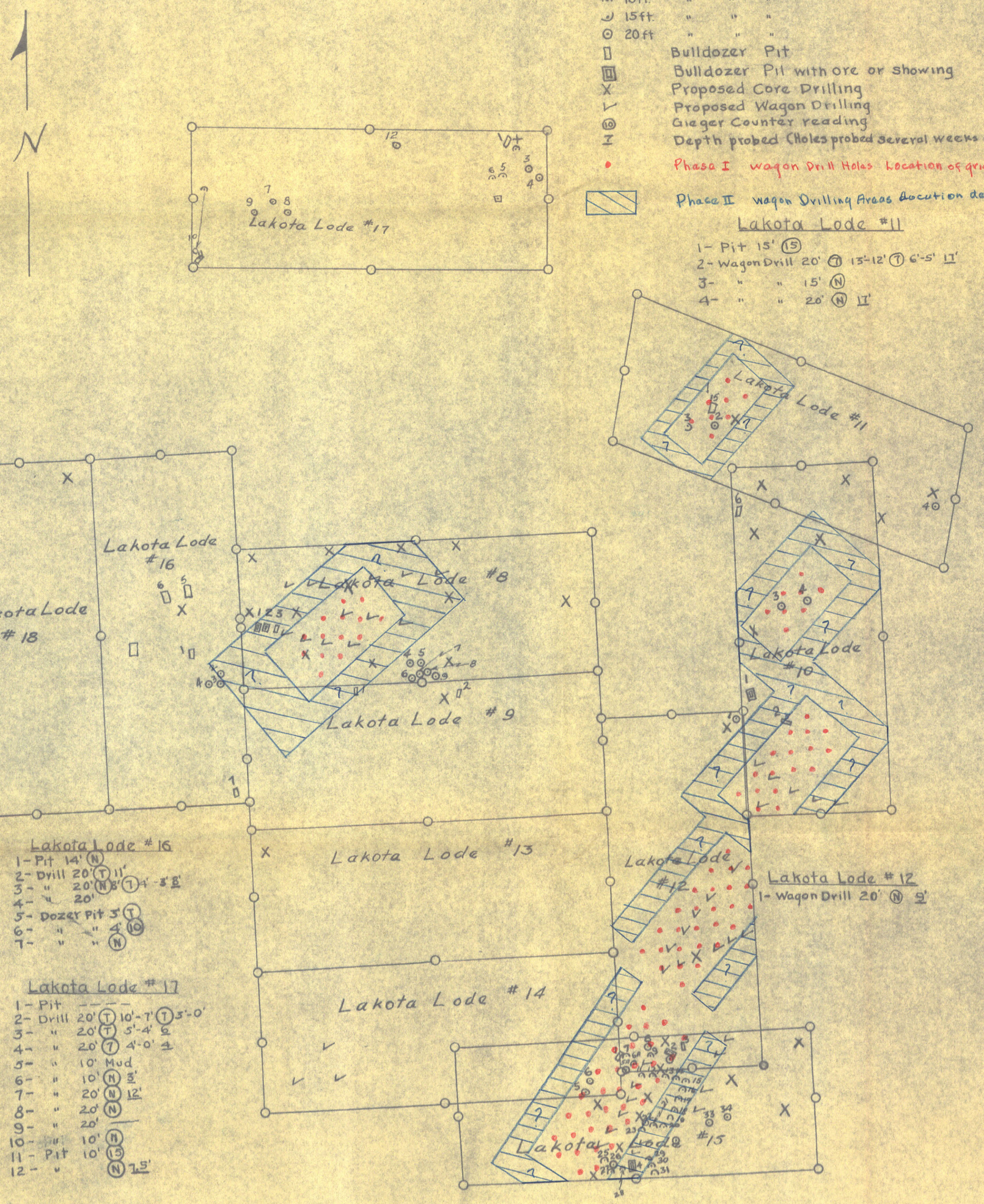

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3- " " 15' (N)
4- " " 20' (N) 11'

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15- " " 10' (N) 7'
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