DMEA- 3582- IdmE796 - Walter Duncan Mining Co.

Consents to Lien signed by:

address

1 Quentin S. Bullock - Box 322, Bryan, Texas

2 { G. O. Paterson, Lyle Francis, R.F. Jenkins } Moab, Utah

F.B. Jenkins — Grand Junction, Colorado

3. Frank L. Seymor — Grand Junction, Colorado

Division copy

Arthur Kemper
"Appd. Sol. Off."
Murphy
J. R. Crosby
Crombies
Martin

TERMINATION AGREEMENT

It is agreed this 20th day of August, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and J. Walter Duncan, Jr., d/b/a Walter Duncan Mining Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract Idm-8796 (Docket No. DMEA-3582), dated June 10, 1955, hereinafter called the "Contract," that:

1. Effective May 15, 1956, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute only to the fixed unit costs of work performed prior to said effective date.

3. The Operator shall preserve records as required by the contract, and hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said contract, except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By W. M. Davies
Executive Officer
DMEA Field Team, Region III

WALTER DUNCAN MINING COMPANY

By J. Walter Duncan, Jr.
J. Walter Duncan, Jr.

Divisio[illegible] Copy

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JUL - 1 1955

MF-200A
(Revised June 1954)

Docket No. DMEA- 3[illegible]32

Commodity Uranium

Contract No. Idm-E 79[illegible]

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this 10th day of June, 195 5, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] J. Walter Duncan, Jr., d/b/a Walter Duncan Mining Company, whose mailing address is P. O. Box 1463 Cortez, Colorado, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and .....

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Utah, County of San Juan, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] lease, [7] recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: Consent to Lien of Quentin S. Pollock and Consents to Lien of G. O. Patterson, Lyle Francis, R. F. Jenkins, F. B. Jenkins, and Frank L. Seymour

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

16—70618-1

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of uranium. The work to be performed is described in Exhibit "A." The Operator on or before July 15, 1955 shall commence the work, and on or before December 30, 1956 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $76,088.00 The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $57,066.00 (rounded): *Provided,* That until the Operator has rendered to the Government his final report, and any final 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 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, 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, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

WALTER DUNCAN MINING COMPANY
(Operator)

By J Walter Duncan, Jr.

THE UNITED STATES OF AMERICA

By C Mitkendorf
Administrator, Defense Minerals Exploration Administration

Appd. Sol. Off.
Murphy
Ellis
Talbot
Selfridge

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... 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.

.....

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

EXPLORATION PROJECT CONTRACT
WALTER DUNCAN MINING COMPANY
DOCKET NO. DMEA-3582

ANNEX I

The land referred to in Article 2 of the contract form consists of parts of sixteen (16) unpatented lode mining claims which are recorded in the office of the County Recorder, San Juan County, Utah, as follows:

Claim	Book No.	Page No.
Paragon No. 5	223	517
Paragon No. 7	223	517
Paragon No. 8	223	518
White Rock No. 1	247	458
White Rock No. 2	247	459
White Rock No. 3	247	460
White Rock No. 4	247	460
White Rock No. 2 East Extension	259	245
Red Rock No. 1 West Extension	259	245
Red Rock No. 1	247	441
Red Rock No. 2	247	442
Red Rock No. 3	247	443
Red Rock No. 4	247	444
Red Rock No. 5	247	445
Red Rock No. 6	247	446
Patterson Fraction	273	204

The parts of the claims which constitute the land are in Sections 34 and 35, T. 30 S., R. 25 E., S.L.M., and are shown on the map entitled "Figure 3, Claim Map Showing Location of Proposed Drill Holes on Walter Duncan Mining Co. Claims, . . . etc.," which is attached hereto and made a part hereof.

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JUL - 1 1955

EXPLORATION PROJECT CONTRACT
WALTER DUNCAN MINING COMPANY
DOCKET NO. DMEA-3582

EXHIBIT "A"

Description of the Work

The object of this project is the discovery of uranium ore in a sedimentary rock, locally known as the Chinle formation of Triassic age. To penetrate the ore-bearing horizon of this formation will require drill holes ranging from 505 to 743 feet in depth, or an average depth of 603 feet.

The work shall be performed in three stages. The Operator shall perform Stage I and so much of the work set forth under Stages II and III as is approved in writing in advance by the Government.

Stage I

Stage I consists of bulldozing access roads to and preparing 13 drill sites. The locations of the drill sites are shown on the attached map, Figure 3, and identified by an X and the letter A. /XA/

From the drill sites prepared, thirteen (13) holes shall be drilled, aggregating not to exceed 8501 feet of drilling. Each hole shall be started with a noncore bit; however, on reaching the inferred mineralized horizon, each hole shall be cored for approximately the last 40 feet, including up to 5 feet of the Cutler formation.

Stage II

Stage II consists of bulldozing access roads to and preparing ten (10) drill sites. The locations of the drill sites are shown on the attached map, Figure 3, and are identified by an X and the letter B. /XB/

From the drill sites prepared under this stage, not to exceed ten (10) holes, aggregating not to exceed 6678 feet,

shall be drilled in this stage. Each hole shall be started with a noncore bit; however, on reaching the inferred mineralized horizon, each hole shall be cored for approximately the last 40 feet, including up to 5 feet of the Cutler formation.

The locations of Stage II drill holes, as shown on map, Figure 3, are subject to such changes as are approved by the Government, based upon an evaluation of Stage I drilling results.

Stage III

Stage III consists of bulldozing access roads to and preparing seventeen (17) drill sites at locations determined after a geologic evaluation of the results of drilling under Stages I and II. The holes in this stage shall be offset holes, and shall not be drilled closer than 100 feet to any other hole.

Not in excess of seventeen (17) holes aggregating not to exceed 10,321 feet shall be drilled in this stage. Each hole shall be started with a noncore bit; however, on entering the inferred mineralized horizon, each hole shall be cored for approximately the last 40 feet, including up to 5 feet of the Cutler formation.

General

A supervising engineer or geologist shall be employed full time while work under this contract is being performed. The supervisor's work shall consist of a daily examination and logging of the drill core, hole probing with company-owned instruments, determination of drilling depths, necessary surveying, locating drill-hole sites, and all other duties necessary to the satisfactory technical progress of the work described in this contract.

No hole shall be started unless it can be completed within the maximum footage provided for a stage; and the Government will not contribute to the cost of any incompleted hole.

Certified drill and geologic logs, and certified copies of analytical returns shall be submitted with the Operator's monthly progress reports.

All drill holes under this contract shall bottom with BX minimum size core bits.

One-half of the cuttings and core shall be stored for Government use.

No hole shall be drilled closer than 100 feet to the outer boundary of the land described in Annex I of this contract.

The supervision, the extent and method of sampling and drill-hole logging, the manner of storing and splitting drill cuttings and core, the location of access roads and drill sites, and the drilling method used, shall all be subject to Government approval.

Fixed Unit Costs

Stage I

7,906 feet of noncore drilling @ $2.86/ft.	$22,611.16	
595 feet of core drilling @ $4.49/ft.	2,671.55	
16 chemical analyses for U_3O_8, V_2O_5, and $CaCO_3$ @ $5.00/each sample	80.00	
Estimated Total Cost for Stage I		$25,362.71
Government Participation @ 75%		19,022.03

Stage II

6,211 feet of noncore drilling @ $2.86/ft.	$17,763.46	
467 feet of core drilling @ $4.49/ft.	2,096.83	

13 chemical analyses for U_3O_8, V_2O_5, and $CaCO_3$ @ $5.00/each sample	65.00	
Estimated Total Cost for Stage II		$19,925.29
Government Participation @ 75%		14,943.97

Stage III

9,599 feet of noncore drilling @ $2.86/ft.	$27,453.14	
722 feet of core drilling @ $4.49/ft.	3,241.78	
21 chemical analyses for U_3O_8, V_2O_5, and $CaCO_3$ @ $5.00/each sample	105.00	
Estimated Total Cost for Stage III		$30,799.92
Government Participation @ 75%		23,099.94

S U M M A R Y

Estimated Total Cost Stage I	$25,362.71
Estimated Total Cost Stage II	19,925.29
Estimated Total Cost Stage III	30,799.92
Estimated Total Cost of Project (rounded to)	$76,088.00 1/
Government Participation @ 75% (rounded to)	$57,066.00

1/ The unit cost for drilling includes the costs of access roads, preparing drill sites, and all other costs whatsoever necessary in connection with the performance of the project work.

MF-203
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator [redacted]
Docket No. DMEA-[redacted]
Contract No. Idm-E
Contract Date

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of [redacted], State of [redacted], described as follows:1/

[redacted] 273, [redacted] 204 [redacted] of said county.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of a percentage royalty on production as may be provided for by the contract;2/ and represents and undertakes that there are no claims, liens, or encumbrances upon the undersigned's right, title, or interest in the land prior to that hereby granted to the Government other than the following:3/

[redacted]

3. Undertakes and agrees neither to commit any act nor assert any claim in conflict with the provisions of this Consent to Lien; and to give advance notice of the Government's rights under this Consent to Lien to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, or interest in the land; and

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

3/ Write "none" if that is the case. Do not leave lines blank.

4. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Consent to Lien shall extend and apply thereto.

5. Added provision: _____

_____

_____

_____

_____

_____

_____

_____

Dated this 16th day of May, 1955.

Frank L. Seymour [Seal]

_____ [Seal]

_____ [Seal]

I, _____ certify that I am the _____ _____ (Secretary, etc.) of the corporation named herein; that _____ _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____

[Corporate Seal]

DEPARTMENT OF THE INTERIOR
Bureau of Mines
Minerals Administration
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MF-203
(Revised July 1, 1954)

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 Utah, County of San Juan, described as follows:1/

CLAIM NAME	P.L. 585 Notice Posted	Notice Recorded	Book	Page
Paragon 6	11-2-54	11-4-54	223	517
Paragon 7	11-2-54	11-4-54	223	517
Paragon 8	11-2-54	11-4-54	223	518

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/ J. Walter Duncan, Jr., d/b/a Walter Duncan Mining Company
P. O. Box 1468
Cortez, Colorado

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production 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.

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.

(OVER)

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 In Paragraph Two the words "the period fixed in the contract or any amendment thereof has" are substituted for "ten years have".

Dated this 14th day of MARCH, 1955.

Quentin S. Bullock [Seal]

[Seal]

[Seal]

(Seal)

(Seal)

MF-203
(Revised July 1, 1954)

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 Utah, County of San Juan, described as follows:1/

CLAIM NAME	P.L. 585 Notice Posted	Notice Recorded	Book	Page
~~Red Rock 1 West Extention~~	~~12-7-54~~	~~12-15-54~~	~~259~~	~~245~~
Red Rock 1	12- 1-54	12-8-54	247	441
Red Rock 2	12- 1-54	12-8-54	247	442
Red Rock 3	11-24-54	12-8-54	247	443
Red Rock 4	11-24-54	12-8-54	247	444
Red Rock 5	11-24-54	12-8-54	247	445
Red Rock 6	11-24-54	12-8-54	247	446

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/ J. Walter Duncan, Jr. d/b/a Walter Duncan Mining Company

P. O. Box 1468

Cortez, Colorado

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production 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.

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.

(OVER)

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 **In Paragraph Two the words "the period fixed in the contract or any amendment thereof has" are substituted for "ten years have".**

Dated this 25 day of March, 1955.

G O Patterson [Seal]
G. O. Patterson

[Seal]
Lyle Francis

Lyle Francis [Seal]
R. F. Jenkins

R. F. Jenkins (Seal)
F. B. Jenkins

F B Jenkins (Seal)

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
APR - 4 1955

MF-203
(Revised July 1, 1954)

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 Utah, County of San Juan, described as follows:1/

CLAIM NAME	P.L. 585 Notice Posted	Notice Recorded	Book	Page
White Rock 1	11-24-54	12-8-54	247	458
White Rock 2	11-24-54	12-8-54	247	459
White Rock 3	12- 1-54	12-8-54	247	460
White Rock 4	11-24-54	12-8-54	247	460
White Rock 2 East Extension	12-10-54	12-15-54	259	245

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/ J. Walter Duncan, Jr., d/b/a Walter Duncan Mining Company
P. O. Box 1468
Cortez, Colorado

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production 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.

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.

(OVER)

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 **In Paragraph Two the words "the period fixed in the contract or any amendment thereof has" are substituted for "ten years have".**

Dated this 25 day of March, 1955.

G. O. Patterson [Seal]
G. O. PATTERSON

[Seal]

R. F. JENKINS [Seal]
R. F. Jenkins (Seal)

F. B. Jenkins (Seal)
F. B. JENKINS

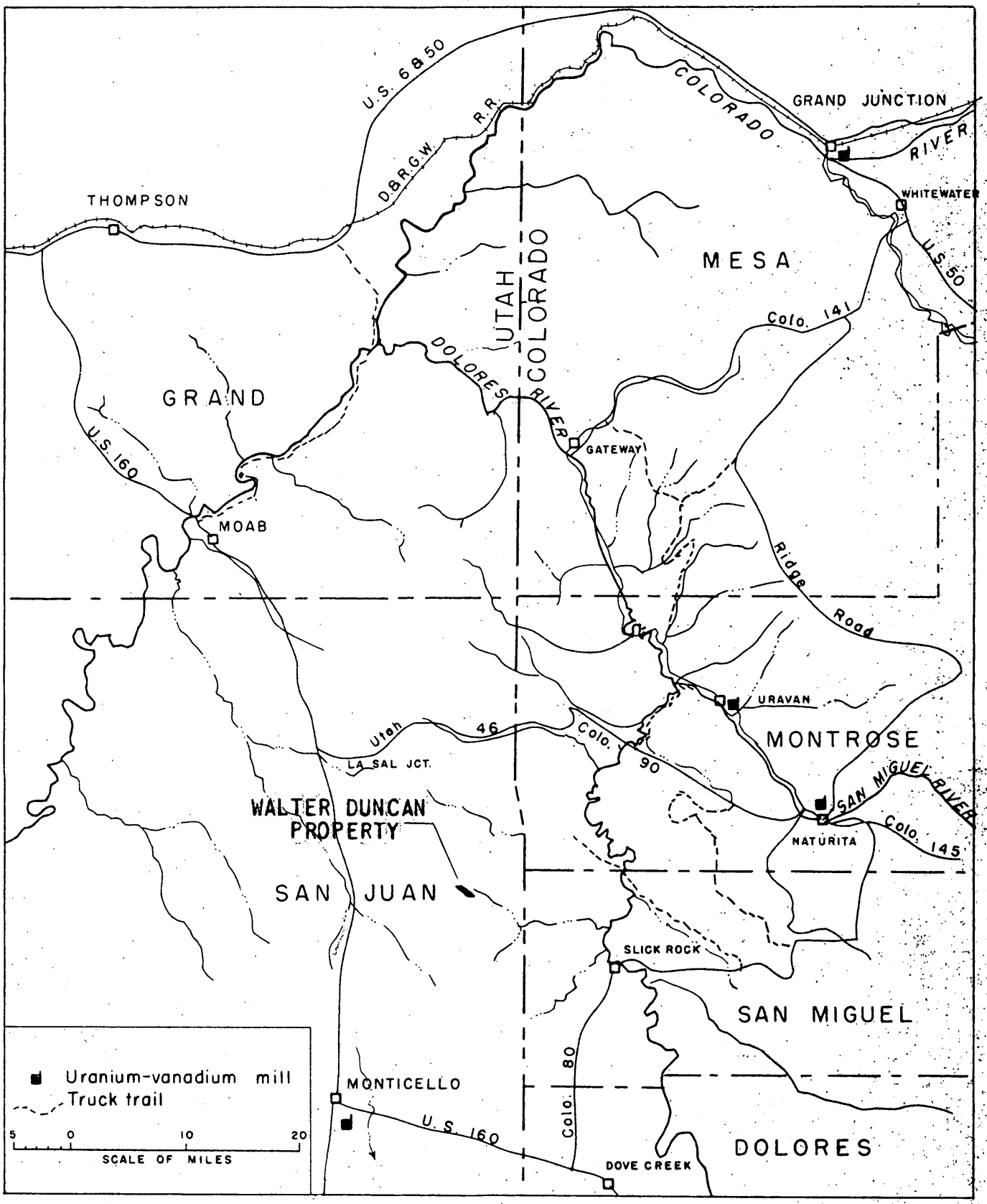
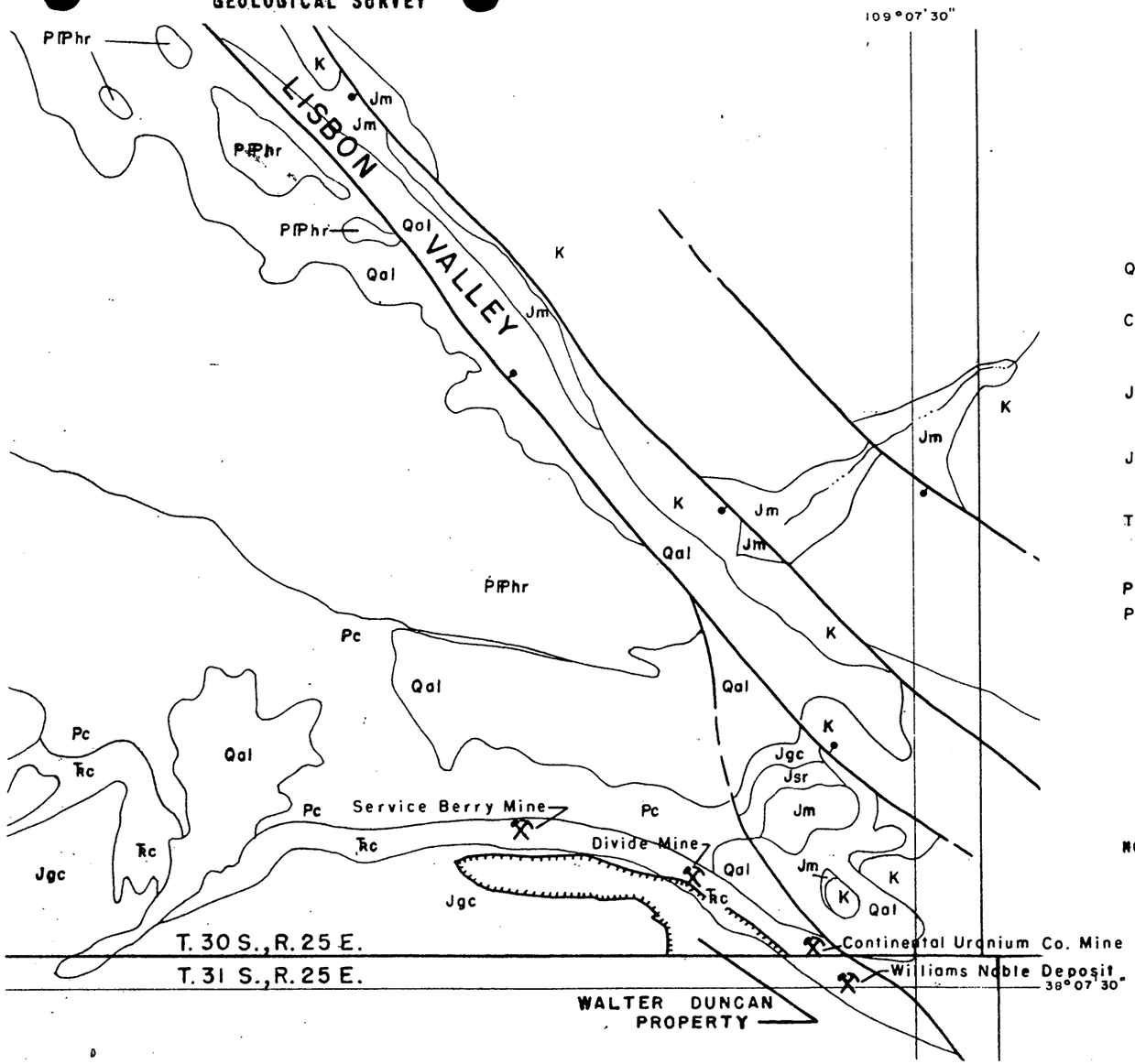


Figure 1. INDEX MAP OF PART OF THE COLORADO PLATEAU SHOWING LOCATION OF WALTER DUNCAN MINING CO. CLAIMS, LISBON VALLEY AREA SAN JUAN COUNTY, UTAH

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 3582



EXPLANATION

Quaternary	Qal	ALLUVIUM
Cretaceous	K	CRETACEOUS UNDIVIDED
Jurassic	Jm	MORRISON FORMATION
	Jsr	SAN RAFAEL GROUP
Jurassic Triassic	Jgc	GLEN CANYON GROUP
Triassic	Ꞧc	CHINLE FORMATION
Permian(?) and Pennsylvanian	Pc	CUTLER FORMATION
	PIPhr	HERMOSA FORMATION AND RICO FORMATION

FORMATIONAL CONTACT. DASHED WHERE MOST DOUBTFUL

FAULT, SHOWING DOWNTHROWN SIDE. DASHED WHERE MOST DOUBTFUL. (Not all faults are shown)

NOTE: Location of formational contacts, faults, mines and prospects and township grid is approximate

N

1 0 2 MILES

Figure 2. MAP SHOWING GEOLOGIC SETTING OF THE WALTER DUNCAN CO. MINING CLAIMS, LISBON VALLEY AREA, SAN JUAN COUNTY, UTAH

RECEIVED
JUL - 1 1955

SUPPLEMENTAL AGREEMENT

THIS AGREEMENT, Made and entered into this 23rd day of June, 1955, by and between QUENTIN S. BULLOCK of Bryan, Texas (hereinafter referred to as the "Lessor") and J. WALTER DUNCAN, JR., doing business as WALTER DUNCAN MINING COMPANY of Oklahoma City, Oklahoma (hereinafter referred to as the "Lessee"),

WITNESSETH:

WHEREAS, the parties hereto on the _____ of _____,1954, entered into an agreement leasing unto the above named Lessee 3 unpatented mining claims located in San Juan County, Utah, the names of which, together with the recordation of the original notices of location and amended notices of location pursuant to Public Law 585, are respectively as follows:

Claim Name	Notices of Location	P.L. 585 Notices
Paragon #5	Book 35, Page 107	Book 223, Page 517
Paragon #7	Book 37, Page 85	Book 223, Page 517
Paragon #8	Book 37, Page 85	Book 223, Page 518

WHEREAS, all of the above described claims were located on lands subject at the time of location of the claims to Prior Federal Oil and Gas Leases, and

WHEREAS, the Lessor above named made application to the Atomic Energy Commission under Circular 7 for a validating lease on all of said unpatented mining claims, and agreed to assign such lease unto the Lessee above named reserving, however, a royalty of 15% upon the ores mined and removed from the said lands; and

WHEREAS, the said prior agreement contained the following clause: "In the event of the passage of subsequent legislation affecting the title to the claims covered hereby or in the event that certain of such claims are found to be not subject to Federal Oil and Gas Leases, the parties agree that they will, in good faith, jointly and severally, take such actions and steps and execute such further instruments as may be necessary to effectuate and achieve the full intents and purposes of this agreement." And,

WHEREAS, subsequent to the execution of the prior lease agreement Public Law 585 was enacted by the 83rd Congress which provides a procedure for the validation of mining claims such as those contained and listed in said prior agreement, and the parties have complied with said law with respect to all of said claims, and it is the intention

and desire of the parties hereto to provide that said claims as presently validated shall be and remain subject to all of the terms and conditions of the previous lease agreement.

NOW, THEREFORE, THE PARTIES HAVE AGREED:

All of the unpatented mining claims as above described, as presently validated under the provisions of the Public Law 585 of the 83rd Congress, shall be and remain subject to all of the terms and conditions of the lease agreement between the parties above referred to, to all intents and purposes as if such claims, as presently validated, were specifically contained in said prior lease agreement.

This agreement shall be considered a part of the original lease agreement and any provisions herein contained shall supersede any povisions of said prior lease agreement in conflict therewith, but all other terms and conditions of said previous lease agreement shall remain in full force and effect. This agreement shall be binding upon the parties hereto, their legal representatives, heirs and assigns.

IN WITNESS WHEREOF, the parties hereto have executed the foregoing supplemental agreement the day and year first above indicated.

RECEIVED
JUL - 1 1955

SUPPLEMENTAL AGREEMENT

THIS AGREEMENT, Made and entered into this 21st day of June, 1955, by and between G. O. PATTERSON, of Moab, Utah, FLOYD B. JENKINS, of Grand Junction, Colorado, LYLE FRANCIS, of Moab, Utah, RUPERT JENKINS, of Moab, Utah, and FRANK L. SEYMOUR, of Grand Junction, Colorado, (hereinafter referred to as the "Lessors") and J. WALTER DUNCAN, JR., doing business as WALTER DUNCAN MINING COMPANY, of Oklahoma City, Oklahoma, (hereinafter referred to as the "Lessee"),

W I T N E S S E T H:

WHEREAS, The parties hereto on the 22nd day of April, 1954, entered into an agreement leasing unto the above named Lessee 19 unpatented mining claims located in San Juan County, Utah, the names of which, together with the recordation of the original notices of location and amended notices of location pursuant to Public Law 585, together with the record owners of said claims are respectively as follows:

Claim Name	Original Notices of Location		P.L. 585 Amended Notices of Location		Record Owners
	Book	Page	Book	Page	
Red Rock #1	23	26	247	441	G. O. Patterson,
Red Rock #2	23	27	247	442	R. F. Jenkins,
Red Rock #3	23	27	247	443	F. B. Jenkins, and
Red Rock #4	23	28	247	444	Lyle Francis
Red Rock #5	23	28	247	445	
Red Rock #7	23	29	247	447	
Black King #10	23	82	247	455	
Black King #11	23	82	247	456	
Sunney Brook	23	22	247	454	
White Rock #1	55	493	247	457	G. O. Patterson,
White Rock #2	55	493	247	458	F. B. Jenkins, and
White Rock #3	55	494	247	459	R. F. Jenkins
White Rock #4	55	494	247	460	
Four Roses	21	443	247	461	
Hot Spot #1	51	390	247	449	G. O. Patterson,
Hot Spot #2	51	391	247	450	F. B. Jenkins,
Hot Spot #3	51	391	247	451	R. F. Jenkins, and
Hot Spot #4	51	392	247	452	Frank Seymour
Hot Spot #5	51	392	247	453	

WHEREAS, All of the above described claims were located on lands subject at the time of location of the claims to prior Federal Oil and Gas Leases, and

WHEREAS, The Lessors above named made application to the Atomic Energy Commission under Circular 7, then in effect, for a validating lease on all of

said unpatented mining claims, and agreed to assign such lease unto the Lessee above named reserving, however, a royalty of 15% upon the ores mined and removed from the said lands; and

WHEREAS, The said prior agreement contained the following clause: "In the event of the passage of subsequent legislation affecting the title to the claims covered hereby or in the event that certain of such claims are found to be not subject to Federal Oil and Gas Leases, the parties agree that they will, in good faith, jointly and severally, take such actions and steps and execute such further instruments as may be necessary to effectuate and achieve the full intents and purposes of this agreement." And,

WHEREAS, Subsequent to the execution of the prior lease agreement Public Law 585 was enacted by the 83rd Congress which provides a procedure for the validation of mining claims such as those contained and listed in said prior agreement, and the parties have complied with said law with respect to all of said claims, and it is the intention and desire of the parties hereto to provide that said claims as presently validated shall be and remain subject to all of the terms and conditions of the previous lease agreement.

NOW, THEREFORE, THE PARTIES HAVE AGREED:

1. All of the unpatented mining claims as above described, as presently validated under the provisions of the Public Law 585 of the 83rd Congress, shall be and remain subject to all of the terms and conditions of the lease agreement between the parties above referred to, to all intents and purposes as if such claims, as presently validated, were specifically contained in said prior lease agreement.

2. The parties have agreed that the following described claims, one of which was inadvertently omitted from the original lease agreement and the others of which were located subsequent to the execution of said prior lease agreement for the purpose of covering fractional tracts of land shall be added to and considered a part of the claims covered by the above referenced lease agreement dated April 22, 1954, to-wit:

Claim Name	Original Notices of Location Book	Page	P.L. 585 Amended Notices of Location Book	Page	Record Owners
Red Rock #6	23	29	247	446	G. O. Patterson, R. F. Jenkins, F. B. Jenkins, and Lyle Francis
Red Rock #1 West Ext.	259	245	Not required		
White Rock #2 East Ext.	259	245	Not required		G. O. Patterson, R. F. Jenkins, and F. B. Jenkins.

It is agreed between the parties that the above described claims shall be subject to all of the terms and conditions set forth in said lease agreement with the exception that there is no necessity for the acquiring of validating lease under Circular 7.

3. It is agreed between the parties that the work requirement required to be performed in said prior lease agreement within one (1) year of the approval of assignment of validating lease shall be performed within one (1) year of January 1, 1955, provided, however, that work completed prior to such date by the Lessee shall apply upon the work requirement specified in said prior lease agreement.

This agreement shall be considered a part of the original lease agreement and any provisions herein contained shall supersede any provisions of said prior lease agreement in conflict therewith, but all other terms and conditions of said previous lease agreement shall remain in full force and effect. This agreement shall be binding upon the parties hereto, their legal representatives, heirs and assigns.

IN WITNESS WHEREOF, The parties hereto have executed the foregoing supplemental agreement the day and year first above indicated.

Robert Jenkins (SEAL)
Frank L. Seymour (SEAL)
Felayne B. Jenkins (SEAL)
Lyle Francis (SEAL)
G. O. Patterson (SEAL)
"Lessors"

J. Walter Duncan, Jr. (SEAL)
"Lessee"

STATE OF Colorado)
) ss
COUNTY OF Mesa)

The foregoing instrument was acknowledged before me this 23rd day of June, 1955, by Rupert Jenkins, Frank L. Seymour and Floyd B. Jenkins

WITNESS My hand and official seal.

My commission expires:

Maurice R. Hall
Notary Public

STATE OF)
) ss.
COUNTY OF)

The foregoing instrument was acknowledged before me this day of , 1955, by

WITNESS My hand and official seal.

My commission expires:

Notary Public

STATE OF)
) ss.
COUNTY OF)

The foregoing instrument was acknowledged before me this day of , 1955, by

WITNESS My hand and official seal.

My commission expires:

Notary Public

☒ Audited

☐ Certified No.

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of Dec. 28-1956
Incl. Voucher for Feb. 1956

☐ Actual Cost

☒ Agreed Unit Costs

Name Walter Duncan Mining Company

Docket No. 3582

State Utah

Commodity Uranium

Idm-E No. 796

San Juan County

OPERATION	AUTHORIZED Units Feet	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Non-Core	23716	$67,827.76	11763	33642.18	33,642.18
Core	1784	8,010.16	727	3264.23	3264.23
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Analyses U_3O_8, V_2O_5, $CaCO_3$		250.00		None	
Totals		76,088.00 (rounded)		36,906.41	

Prepared by F. M. Murphy

71626

Project Summary Report

By: F. H. Murphy Date: January 7, 1957

1. Docket No. D LA-3582 (Uranium)
   Contract No. Idm-2796
   Operator: Walter Duncan Mining Company
   P. O. Box 1468
   Cortez, Colorado

   Operator's Property Rights:

   Lessee of 16 claims - Paragon (3), White Rock (5), Red Rock (7), and Patterson Fraction (1), situated in secs. 34 and 35, T. 30 S., R. 25 E., SLBM, San Juan County, Utah.

2. Contract: dated June 10, 1955
   terminated by mutual agreement on August 20, 1956

   Work Authorized:

	UNITS			
	Stage I (13 holes)	Stage II (10 holes)	Stage III (17 holes)	COST
Non-core drilling @ $2.86/ft.	7,906	6,211	9,599	$67,827.76
Core drilling @ $4.49/ft.	595	467	722	8,010.16
Analaysis V_2O_5, U_3O_8, $CaCO_3$ @ $5/sample	16	13	21	250.00

Total Estimated Cost (rounded) $76,088.00
Government Participation @ 75% (rounded) $57,066.00

Work Completed:

Stage I-13 holes, Stage II - 7 holes, Stage III not authorized.

February 1956 - MF-104:

Non-core drilling, 11,763 ft. @ $2.86/ft.	$33,642.18
Core drilling, 727 ft. @ $4.49/ft.	3,264.23
Total Cost submitted by Operator	$36,906.41

3. Audit Report of Review - August 27, 1956

Total cost as billed by Contractor	$36,906.41
Exceptions	-
Total Accepted Cost	$36,906.41
Government Participation @ 75%	$27,679.82

4. Certification: None

5. Comments: The object of the project was to explore the basal (Moss Back?) member of the Chinle formation.

The exploratory work was approved as the property lies in a major uranium producing area, the Lisbon Valley anticline. Prior to DMA drilling the Continental Uranium Company discovered a 75000-100,000 ton ore body within 1,000 feet of the western boundary of the project area. Also mineralized outcrops near the northern boundary of the project area suggested a possible continuation of the ore-bearing host rock of the continental deposit.

The Stage I holes were located to intersect any channels or lenses trending in an east-west direction.

Stage II consisted of 7 holes to test an area of thick basal Chinle sandstone in the eastern portion of the project area.

The core shows that the Chinle sandstone in the project area is well washed and flushed by ground water. Structure contours at the base of the Chinle show no particular scouring or channeling. This relatively uniform contact between the Chinle and Cutler suggests that the basal Chinle in the project area was probably in a broad shallow basin rather than in a sharply dilineated channel that would be favorable for ore deposition.

Exploratory drilling under the contract started in July, 1955 and completed in February, 1956. No uranium ore was found.

The work was carried out in a satisfactory manner.

The Operator's Final Narrative Report was received in Washington May 17, 1956.

The Field Team report has not been received to date, but the Operator's report is complete enough.

Final payment to the Operator was approved August 28, 1956.

/s/ F. M. Murphy

F. M. Murphy, Mining Engineer
Rare & Miscellaneous Metals Div.

FMMurphy/izm 1-7-57
cc to: Docket (original)
Code 700
Mr. Murphy
Admr.'s Reading File
~~Operating Committee~~

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

224 New Customhouse
Denver 2, Colorado

February 6, 1957

EXTRA COPY DMEA RECEIVED FEB 18 1957		
DATE	INITIALS	CODE
		120
2-18	C	220
		700

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA-3582 (Uranium), Contract No. Idm-E796
Walter Duncan Mining Company (Red Rock, White Rock, and Paragon Claims), San Juan County, Utah
FINAL REPORT

Enclosed are the original and three copies of a joint final engineering and geologic report dated January, 1957, by J. William Hasler, Geologist, Geological Survey, and Carl Belser, Mining Engineer, Bureau of Mines, and transmittal thereof dated January 18, 1957 from John F. Shaw and E. N. Harshman.

The original and one copy of the Operator's final report were forwarded to the Washington Office by memorandum of May 14, 1956.

The contract was terminated before completion of all the work provided for, by a Termination Agreement dated August 20, 1956, which was made effective May 15, 1956.

The exploration work completed consisted of 20 drill holes aggregating 11,763 feet of plug drilling and 727 feet of core drilling at a total accepted cost of $36,906.41, toward which the Government contributed 75 percent, or an amount of $27,679.82.

Final payment to the Operator was processed August 28, 1956 in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, DMEA, dated August 27, 1956.

The exploration work did not result in the discovery or development of a significant quantity of uranium ore. The Operator was

Reviewed by
DMEA OPERATING COMMITTEE
2-15-57
(date)

advised by letter of January 10, 1957 from the Acting Administrator, DMEA, that the Government retained no claim or lien against the property for the payment of royalty on production.

DMEA Field Team, Region III

Original signed by
W. M. TRAVER
W. M. Traver

Original signed by
E. N. HARSHMAN
E. N. Harshman

Enclosures

JWT:bh

cc-Allen E. Jones, AEC
E. R. Gordon, AEC) w/copy of
Harshman) joint final
Shaw (2)) engineering and
Hasler) geologic report
Final Report File, Region III - w/copy of Operator's final report and joint final engin. & geo. report

Townsend
Corres. File E-796
Chron.

DMEA
DEPARTMENT OF THE INTERIOR
JAN 22 1957
REGION III
DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado

REGION III

January 18, 1957

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Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: Docket DMEA 3582 (Uranium) Contract Idm-E796, Walter Duncan Mining Company (Red Rock, White Rock, Paragon Claims) San Juan County, Utah

Enclosed are 10 copies of Final Engineering and Geological Report on subject project by J. William Hasler and Carl Belser.

The Walter Duncan Mining Company had applied for DMEA aid in exploring for uranium on approximately 100 acres of mineral land in San Juan County, Utah. The possible ore-bearing bed, underlying the ground, is the Moss Back member of the Triassic Chinle formation, which could be prospected by drilling holes from the surface, ranging from 482 to 745 feet deep. Prospecting in nearby ground had resulted in significant ore discoveries which encouraged the belief that similar finds would be made on the subject land.

A contract providing for a 3-stage drilling program was entered into on June 10, 1955. The program, as planned, comprised 25,500 feet of drilling at a total cost of $76,088.00

Drilling commenced June 29, 1955, was recessed in October, resumed February 13, 1956, and stopped before March 1, 1956.

Thirteen holes of Stage I and 7 holes of Stage II drilling were completed. The cost of the work was $36,906.41, of which the government paid 75 percent or $27,679.81.

No ore discovery was made and the contract was terminated on May 15, 1956, at the request of the operator.

Reviewed by
DMEA OPERATING COMMITTEE
2-15-57
(date)

E N Harshman for
John F. Shaw, Supervising Mining Engineer
E. N. Harshman, Member Field Team
E N Harshman

JFS:jg
Enclosures
cc: 9
DMEA 3582
Comm.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS MCKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
FINAL REPORT
REGION III

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		220

DMEA 3582

CONTRACT Idm-E796

RED ROCK, WHITE ROCK AND PARAGON CLAIMS

WALTER DUNCAN MINING COMPANY

SAN JUAN COUNTY, UTAH

Uranium

Final Engineering and Geological Report

by

J. William Hasler
Geological Survey

Carl Belser
Bureau of Mines

January 1957

Reviewed by
DMEA OPERATING COMMITTEE

2-15-57
(date)

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DATE	INITIALS	CODE

DMEA 3582

RED ROCK, WHITE ROCK, AND PARAGON CLAIMS
WALTER DUNCAN MINING COMPANY
SAN JUAN COUNTY, UTAH

INTRODUCTION AND SUMMARY

Walter Duncan Mining Company, P. O. Box 1468, Cortez, Colorado, submitted an application to the Defense Minerals Exploration Administration for aid in an exploration project on the Red Rock, White Rock, and Paragon claims in San Juan County, Utah(Fig. 1). The applicant, in DMEA 3582, requested aid in completing 25,500 feet (45 holes) of plug-bit and core drilling at an estimated cost of $92,200.00

A field examination was made on January 25, 1955. The claims, covering about 100 acres, are in a solid block about 7,900 feet long, and from 500- to 1,000-feet wide. The claims are on a mesa south of, and overlooking Lisbon Valley, 44 miles by road, northeast of Monticello, Utah.

The property is on the southwest or upthrown side of the Lisbon Valley fault and the basal 50 to 100 feet of the Wingate sandstone is exposed on the claims. This is underlain by the Chinle formation of the upper Triassic age which is exposed a few hundred feet to the north. The Chinle is about 400 feet thick and rests unconformably on the underlying Cutler formation of Permian age.

The known ore deposits of the area are contained in an ill-defined basal member of the Chinle formation that is probably equivalent to the Moss Back member of the Chinle to the west. This member has been exposed by rim workings north and northeast of the claims, and in a large number of drill holes have outlined at least two substantial ore bodies. One of these ore bodies lies just east of the claims, and Continental Uranium, Inc., is estimated to have produced 1,000 tons of ore a month from this deposit during the past two years. A second ore body, immediately north of the claims, is being developed by the Apache Mining Corporation.

A contract, calling for a three-stage drilling program, consisting of 25,500 feet of plug-bit and core drilling at an estimated cost of $76,088.00, was signed on June 10, 1955. Drilling commenced on June 29, 1955 and was recessed in late October. Work was resumed on February 13, 1956, and terminated in the same month. All 13 Stage I holes were completed, and an amended Stage II program consisting of 7 holes, five of which were relocated, was completed. No ore was penetrated in any of the holes. The Walter Duncan Mining Company has asked that the contract be terminated.

The total cost of the project was $36,906.41, of which the Government participation was 75 percent, or $27,679.81.

No discovery was made under the contract and no ore has been shipped.

RECOMMENDATIONS

Although the original contract was not completed, the area nearest to the known ore bodies has been adequately drilled with negative results. Holes drilled by other operators just outside of the northwest, west, and south boundaries of the property are barren. It is recommended that no discovery be certified and additional exploration, with Government assistance, is not recommended.

LOCATION AND ACCESSIBILITY

The Red Rock, White Rock and Paragon claims comprise a solid block of land, some 7900 feet in length and from 500- to 1,00-feet wide, in s. 34 and 35, T. 30 S., R. 25 E., Salt Lake meridian, San Juan County, Utah. (figs. 1 and 2). The average altitude is about 7,200 feet. The claims occupy a dip-slope surface 300 to 400 feet southwest of an escarpment over-looking Lisbon Valley. Erosion has formed only a shallow drainage pattern on most of the claim area.

The climate of the region is hot in summer and moderately severe in winter with a low total precipitation, but subject to severe storms of short duration at any season, however year around operations are feasible both underground and on the surface.

The property is accessible over a 22 mile long access road connected with U. S. Highway 160 at a point 22 miles north of Monticello and 35 miles south of Moab, Utah. Uranium buying stations are located in both of these towns where labor and materials can also be obtained.

Water for mine use can be obtained within a distance of 5 miles, and water for domestic use can be obtained from nearby La Sal, Moab, or Monticello.

OWNERSHIP AND EXTENT

The property consists of parts or fractions of 16 unpatented claims of which a long solid block containing about 100 acres appears to be free of conflicts. The 16 claims are recorded in the office of the County Recorder of San Juan County, Utah, as follows:

Claim	Book	Page
Paragon No. 5	223	517
Paragon No. 7	223	517
Paragon No. 8	223	518
White Rock No. 1	247	458
White Rock No. 2	247	459
White Rock No. 3	247	460
White Rock No. 4	247	460
White Rock No. 2 East Extension	259	245
Red Rock No. 1 West Extension	259	245
Red Rock No. 1	247	441
Red Rock No. 2	247	442
Red Rock No. 3	247	443
Red Rock No. 4	247	444
Red Rock No. 5	247	445
Red Rock No. 6	247	446
Patterson Fraction	273	204

The three Paragon claims were leased to the Walter Duncan Mining Company by Quentin S. Bullock. The remaining 13 claims were leased to the Walter Duncan Mining Company by G. O. Patterson, Lyle Francis, Rupert Jenkins, Floyd E. Jenkins, and Frank L. Seymour.

The lease agreements require payments of 15 percent royalty from any production obtained from the claims, and of doing annual assessment work. The lease agreement appears to be in good order.

HISTORY AND PRODUCTION

The Chinle outcrops on the southwest side of Dry Valley were prospected following the introduction of the Government uranium-ore buying program in 1948, and some mining was done on the Divide and Service Berry claims. Activity was limited until exploratory drilling by the Continental Uranium, Inc., discovered a substantial ore body at depth. In 1954, about 1,000 tons of ore a month, averaging 0.49 percent U_3O_8 and 0.64 percent V_2O_5, was being produced from this ore body. Most of the claims were located in 1953. During 1955, the Apache Mining Corporation blocked out an ore body north of the Duncan Property and started an incline early in 1956.

The Red Rock, White Rock, and paragon claims were located in 1953 and 1954, and were later leased to the Walter Duncan Mining Company. A DMEA drilling program was started in July 1955, and terminated upon the request of the contractor in March 1956.

Production from adjacent properties from 1948 to November 1954, inclusive, follows:

Mine	Dry Tons	U_3O_8 percent	V_2O_5 percent	U_3O_8 pounds	V_2O_5 pounds
Service Berry	395.42	0.25	0.60	2,002.04	4,740.12
Divide	112.77	0.23	0.77	524.62	1,747.29
Continental	5,515.35	0.49	0.64	54,050.43	70,596.84

There has been no production from the Duncan property.

GEOLOGY

The Walter Duncan Mining Companies Red Rock group of claims in San Juan County, Utah, lie near the southeast end of Lisbon Valley, a collapsed salt anticline that has been cut longitudinally by a northwest striking fault known locally as the Lisbon Valley Fault. The Red Rock claims lie on the southwest or upthrown side of this fault. Triassic and Jurassic rocks are exposed on the subject claims and also underlie them (Fig. 3).

Only the basal 50 to 200 feet of the Wingate formation consisting of sandstone of upper Triassic age is exposed on the property, although both younger and older rocks are exposed on nearby claims. The Wingate formation is a massive cross-bedded, fine grained, orange collored sandstone.

The Chinle formation of Upper Triassic age underlies the Wingate formation is the chief ore-bearing formation in the Lisbon Valley area. The Chinle formation is exposed a few hundred feet northeast of the claims and is about 400 feet thick and rests unconformably on the Cutler formation of Permian age. The Chinle consists of red and green mudstone and red and gray sandstone, siltstone, and conglomeratic sandstone. Uranium deposits are found in the lowermost sandstone unit of the Chinle formation, the Moss Back member. The Moss Back is a gray to greenish-gray and sandstone, sandy siltstone and conglomeratic sandstone with green mudstone. The Moss Back ranges from a knife edge to more than 30 feet thick along the outcrop near the subject claims, and believed to thicken southwesterly away from the Lisbon Valley salt anticline.

The Cutler formation of Permian age, which underlies the Chinle formation, consists largely of red, purple, and brown mudstone and red, purple and white arkosic sandstone and conglomerate. The Chinle-Cutler contact can generally be recognized in drill core by the first appearance of the above mentioned lithologic characteristics immediately below the contrasting green mudstone and gray sandstone of the Moss Back member.

Structure

The Red Rock claims lie on the southwest flank of the Lisbon Valley anticline about one-half mile southwest of the Lisbon Valley fault. The Lisbon Valley anticline is believed to be underlain by a thickened roll of salt in the Paradox member of the Hermosa formation of Pennsylvanian age. The anticline probably existed as a structural and topographic high since the late Paleozoic,as all Mesozoic formations appear to thin near the axis of the structure. The beds on the property strike about N. 85° W., and dip about 10° southwest. The northwesterly trending Lisbon Valley fault is a normal fault and has a stratigraphic throw of more than 4,000 feet. The southwest side of the fault is upthrown. Northeast of the Walter Duncan company's claim, the Lisbon Valley fault splits into a number of smaller faults. No faults are known to exist on the company claims although the Wingate sandstone shows a well-developed set of vertical joints that trend N. 75° W., about parallel with the trend of the structural contours of the claim area.

ORE DEPOSITS

The basal part of the Chinle formation, which the applicant explored under Contract Idm-E796, is not known to contain mineralized material on the subject claims. Significant ore deposits known to exist on nearby properties suggested that the Red Rocks claims merited at least a limited amount of exploration. These neighboring deposits include the original producing properties in the Chinle formation in the Lisbon Valley area, the recently developed Continental school section 36 mine and the recently discovered Williams-Noble deposit. The Walter Duncan claims were necessarily appraised or evaluated on the basis of neighboring properties, which are briefly described below.

The workings on the Divide claims were mined as early as 1943. The ore was found in sandstone that had been impregnated with gray vanadium minerals and a yellow uranium mineral, probably carnotite. Here the Moss Back member of the Chinle is only about 10 feet thick and is cross-bedded, brownish-gray in color, and conglomeratic. Total production is small, probably less than 200 tons having an average grade of about 0.20 percent U_3O_8. The Divide property is presently idle and has no significant reserves.

The Service Berry mine was developed in 1948. The workings consist of several small open cuts and three adits with small side

stopes and rooms. The ore is similar to that of the Divide claims, except that vanadium minerals appear less abundant, making the rocks more difficult to outline insofar as ore is concerned. Here, the Moss Back member is about 15 feet to 20 feet thick, and total production did not exceed 500 tons, with an average grade of about 0.20 percent U_3O_8. The Service Berry mine is now idle, and there are no significant reserves.

The School Section 36 deposit was discovered by drilling, in 1953 and an incline was sunk and present workings are in excess of 2,000 feet. The ore differs somewhat from the ore found in the Divide and Service Berry mines, in that it is unoxidized and contains the minerals uraninite, montroseite, corvusite, pyrite, and galena as replacement, of calcite or as impregnations in the sandstone. Carbonaceous debris and hematite are also present in the ore. The Moss Back is 30 feet or more thick and consists of conglomerate, coarse- to fine-grained silty sandstone and claystone. The school section 36 mine has produced approximately 30,000 tons of ore averaging 0.38 percent U_3O_8 and 0.65 percent V_2O_5. The ore in the section 36 mine averages about 4 feet thick, has been outlined by diamond drilling for a width of about 300 feet and a length of more than 1,000 feet. Although the ore is somewhat discontinuous, it shows a well-developed elongation trending almost due west.

The Williams-Noble deposit was discovered by drilling during 1954. Assay data is incomplete, but estimates based on AEC gamma-ray logs indicate reserves amounting to 12,200 tons on the Silvey claims that will average 0.21 percent U_3O_8 or more. However, the depth to the ore is approximately 600 feet which probably would make the ore grade material unprofitable to mine.

The field examination indicated that the Red Rock group of claims merited at least a minimum amount of exploration as there were numerous uranium deposits in the immediate vicinity of the claims, and because the claims were probably underlain by a thicker lower Chinle which is usually more favorable for ore deposits than the thinner Chinle found on the Divide or Service Berry properties. The outcrops and drilling suggest that the ore-bearing lower Chinle thickens away from the axis of the Lisbon Valley anticline. Further, the school section 36 deposit suggests that the thicker lower Chinle is more favorable for large deposits. The projected trend of the School section 36 ore body also suggests that the southern part of the Walter Duncan claims provide the more favorable area for finding ore.

The claims appeared more favorable because of their similarity to the areas where the larger deposits in Lisbon Valley, such as the Mi Vida, were found. All of the promising ore bodies have

occurred at depth in the Lisbon Valley area, and as this portion of the valley had been explored but very little at the time of the examination, it was deemed advisable to explore the subject claims for possible buried ore bodies.

ORE RESERVES

There are no known ore reserves on the property.

THE PROJECT

Geologic Justification

The applicant originally proposed a drilling program in two phases, consisting of 42 holes amounting to 25,000 feet of plug-bit drilling and core drilling, to cost an estimated $92,200.00. In a field conference with the examining team it was pointed out that the applicant's proposal was actually a three phase program, because the applicant's first phase was divided into two parts, the second of which was based on drilling results of the first. A revised program embodying three stages was finally agreed upon by all parties.

This program was justified because, where exposed, the basal Chinle formation appeared favorable for ore deposition, and because Continental Uranium Inc. operating just to the northeast,

was producing 1,000 tons of ore a month. Also, the Divide and Service Berry mines, to the north and northwest, had been small producers.

Original Program and Modifications

The original program recommended consisted of three stages. The first stage contained 13 holes (8,501 feet of drilling) in 5 north-south fences spaced about 2,000 feet apart. Stage II consisted of 10 holes (6,678 feet of drilling) in 4 north-south fences spaced midway between the Stage I fences. Stage III had a maximum of 17 holes (10,321 feet of drilling). The locations of Stage III holes would be determined by the results of the previous drilling. The total estimated cost was $76,088.00.

A contract, Idm-E796, was signed on June 10, 1955. Drilling commenced on June 29, was recessed for two weeks on July 20, and was recessed a second time in late October. Work was resumed on February 13, 1956, and terminated the same month. Stage II drilling was reduced from 10 to 7 holes on September 19, 1956, following a request of the operator.

Description of Work Completed

Thirteen Stage I holes, totaling 7,881 feet of drilling, and 2 Stage II holes, totaling 1,325 feet, were completed in accordance with the contract.

As Stage I drilling, and drilling on nearby claims, indicated that the best chance to find ore would be near the east end of the claims, five relocated Stage II holes (3,284 feet) were drilled in this area. No ore was penetrated by any of the drill holes and the contractor requested that the contract be terminated. The results of individual holes are shown in Annex I.

SUMMARY OF FACTUAL DATA

The contract called for a maximum of 25,500 feet of drilling to be done in three stages at the following stipulated costs.

Stage I	
7,906 feet of non-core drilling at $2.86/ft.	$22,611.16
595 feet of core drilling at $4.49/ft.	2,671.55
16 chemical analyses at $5.00 each	80.00
Estimated total cost of Stage I	25,362.71
Stage II	
6,211 feet of non-core drilling at $2.86/ft.	17,763.46
467 feet of core drilling at $4.49/ft.	2,096.83
13 chemical analyses at $5.00 each	65.00
Estimated total cost for State II	19,925.29
Stage III	
9,599 feet of non-core drilling at $2.86/ft.	25,362.71
722 feet of core drilling at $4.49/ft.	3,241.78
21 chemical analyses at $5.00 each	105.00
Estimated total cost for State III	30,799.92
Total estimated cost of project (rounded)	76,088.00
Government participation 75 percent, or	57,066.00

Actual Costs

Because of the unfavorable results the contract was terminated after 20 holes had been completed. Actual contract costs follow:

Stage I	
7,388 feet of non-core drilling at $2.86/ft.	$21,129.68
493 feet of core drilling at $4.49/ft.	2,213.57
Total cost of Stage I drilling	$23,343.25
Stage II	
4,375 feet of non-core drilling at $2.86/ft.	12,512.50
234 feet of core drilling at $4.49/ft.	1,050.66
Total cost of Stage II drilling	$13,563.16
Total cost of Project	**$36,906.41**
Government participation 75 percent or	$27,679.81

No chemical analyses were made during the contract and there was no production during the life of the contract.

Equipment consisted of one Mayhew 1,000 drill and one bulldozer furnished by the Walter Duncan Mining Co. The company also furnished an engineer-geologist, counter, and probe. Holes were also probed by the Geological Survey gamma ray unit.

DISCUSSION OF CONCLUSIONS

With the exception of three months when the work was recessed, there were no marked delays in the performance of contract work. The work progressed smoothly and core recovery was good.

The east end of the claim block, nearest to known ore deposits, was adequately explored. The examining team believes that there are no known targets worthy of additional exploration at present, as none of the holes penetrated ore-grade material. Therefore it is not believed that a discovery should be certified.

ANNEX I

Stage I Holes Drilled under the Contract

Hole No.	Footage Plug-bit	Footage Cored	Footage Total	Cutler Contact	Feet Host Sand	Uranium Mineralization
A-1	657	40	697	684'	10'	Barren
A-2	679	40	719	712'	0'	Barren
A-3	563	40	603	589'	2'	575.3'-577.2'-.025% eU_3O_8
A-4	640	40	680	669'	0'	644.7-645.7'-slightly radioactive
A-5	605	40	645	627'	0'	611.4'-615.6'-.099% eU_3O_8
A-6	547	40	587	583'	0'	Barren
A-7	500	38	538	534'	0'	Barren
A-8	500	20	520	516'	11'	482'-483'-.005% eU_3O_8 492'-499'-slight 500.2-501'-.045% eU_3O_8
A-9	530	40	570	568'	0'	Barren
A-10	705	39	744	735'	6'	Barren
A-11	442	40	482	471'	0'	266.5'-270.0'-.006% eU_3O_8
A-12	473	36	509	497'	0'	Barren
A-13	547	40	672	579'	0'	Barren

Stage II holes drilled under the contract

B-14	632	40	672	669'	11'	Barren
B-15	608	32	640	621'	16'	600.2'-601.2'-.005% eU_3O_8 603.7'-604.4'-.01% eU_3O_8 608.1'-609'-.029% eU_3O_8
B-16	649	36	685	669'	18'	Barren
B-17	582	30	612	608'	0'	638.7'-649.1'-spotted slight eU_3O_8 651.2'-654.6'-.01% eU_3O_8
B-18	632	36	668	665'	0'	Barren
B-19	700	20	720	706'	18'	Barren
B-20	572	40	612	600'	12'	Barren

ANNEX 2

Resume of Diamond Drilling, Walter Duncan Mining Company,
Red Rock and Paragon claims, San Juan County, Utah

DMEA docket 3582 (Uranium) contract Idm-E 796

Hole No.	Thickness of Moss Back	From To	Total Depth	Ore	Mineralized	Barren	Classified
1	10.9'	672' - 682.9'	697'	-	slight	--	Fav.
2	28.0'	679' - 707'	719'	-	--	Barren	Unfav.
3	13.0'	576' - 589'	603'	-	0.05e at 576-577.7'		Fav.
4A	5	665' - 670'	678'	-	slight " 644.7-645.7		Unfav.
5	20'	625' - 645'	645'	-	slight " 610 - 612		Unfav.
6	23.5'	557.5'-581'	587'	-	-	Barren	Unfav.
7	34'	500' - 534'	540'	-	-	Barren	Unfav.
8	11'	502' - 513'	520'	-	0.02 - 0.10 e(498-499)		S.F.
9	7.5'	560.5'-568'	570'	-	-	Barren	Unfav.
10	37.5'	706.5'-744	745'	-	-	Barren	S.F.
11	16.5'	460 - 476.5'	482'	-	-	Barren	Unfav.
12	14'	485.5'-499.5'	509'	-	-	Barren	Unfav.
13	10'	569' - 579'	587'	-	-	Barren	Unfav.
14	11'	652' - 663'	672'	-	-	Barren	S.F.
15	16'	605' - 621'	646'	-	0.01-0.04e at 606-607		Fav.
16	18'	651' - 669'	685'	-	slight at 558.5		Fav.

ANNEX 2
(continued)

Hole No.	Thickness of Moss Back	From To	Total Depth	Ore	Mineralized	Barren	Classi-fied
17	0.5'	584' - 584.5'	612'	-	-	Barren	Unfav.
18	1.5'	660.5'- 662'	668'	-	-	Barren	Unfav.
19	18'	690' - 708'	720'	-	-	Barren	S.F.
20	12'	584' - 596'	612'	-	-	Barren	S.F.
	307.9	Total ---	12,497'				

Average 15.3

ANNEX 3

USGS Gamma-Ray Log Interpretations, DMEA 3582

Walter Duncan Mining Company

Hole No.	Anomaly Detected	Thickness	Grade % eU_3O_8	Barren
1	--	--	--	Barren
2	--	--	--	--
3	576'-589'	--	1.0' 0.05 @ 576'-577.7' 0.032 @ 577'	
4	--	--	--	Barren
5	--	--	--	--
6	--	--	--	--
7	--	--	--	--
8	502'-513'	--	0.8' 0.045 @ 500'	
9	--	--	--	Barren
10	--	--	--	Barren
11	--	--	--	Barren
12	--	--	--	Barren
13	--	--	--	Barren
14	--	--	--	Barren
15	--	--	--	Barren
16	--	--	--	Barren
17	--	--	--	Barren
18	--	--	--	Barren
19	--	--	--	Barren
20	--	--	--	Barren

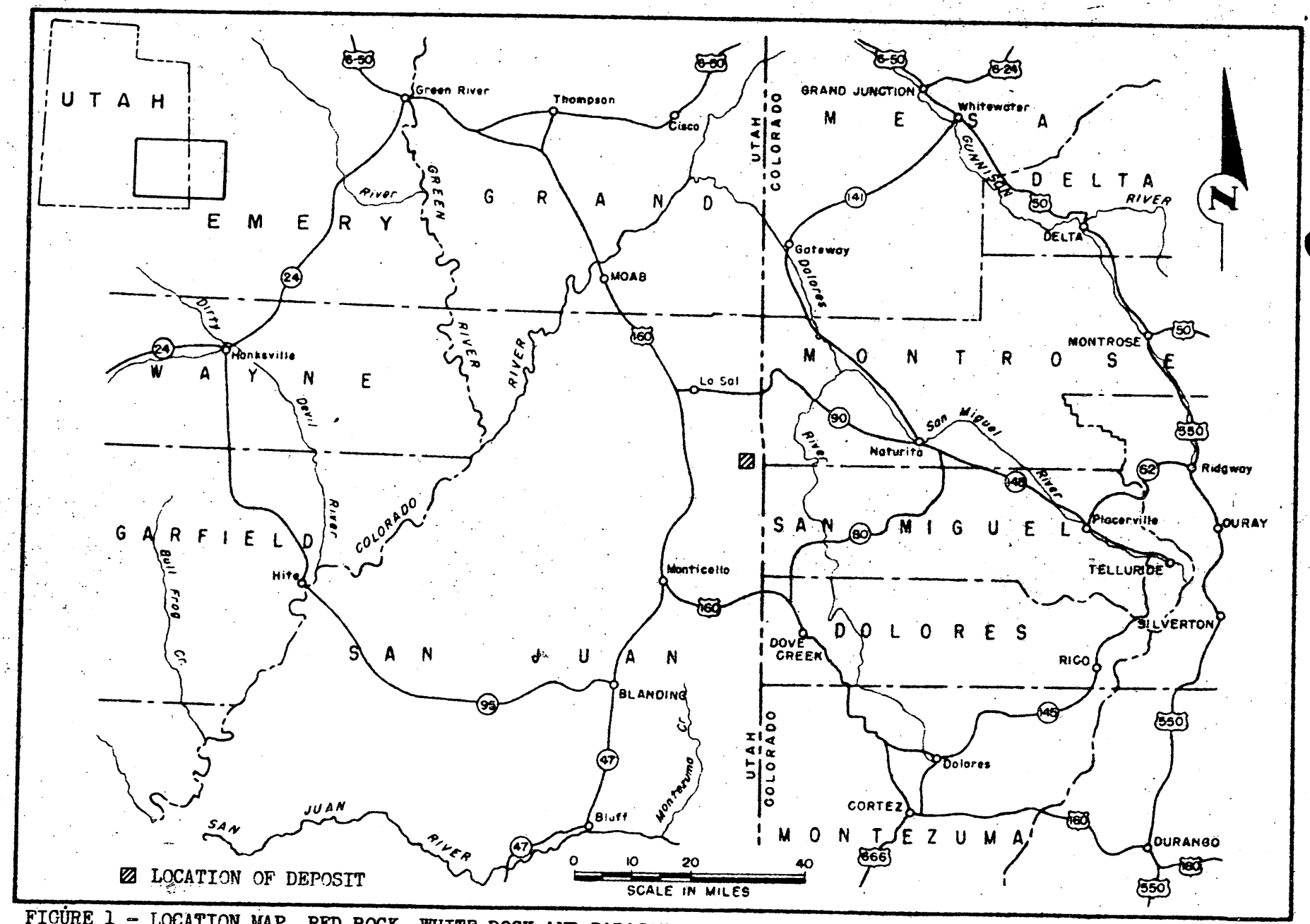


FIGURE 1 - LOCATION MAP, RED ROCK, WHITE ROCK AND PARAGON CLAIMS, WALTER DUNCAN MINING COMPANY, SAN JUAN COUNTY, UTAH. DMRA 3582

RECEIVED
FEB 11 1957
D.M.E.A.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET NO. 3582

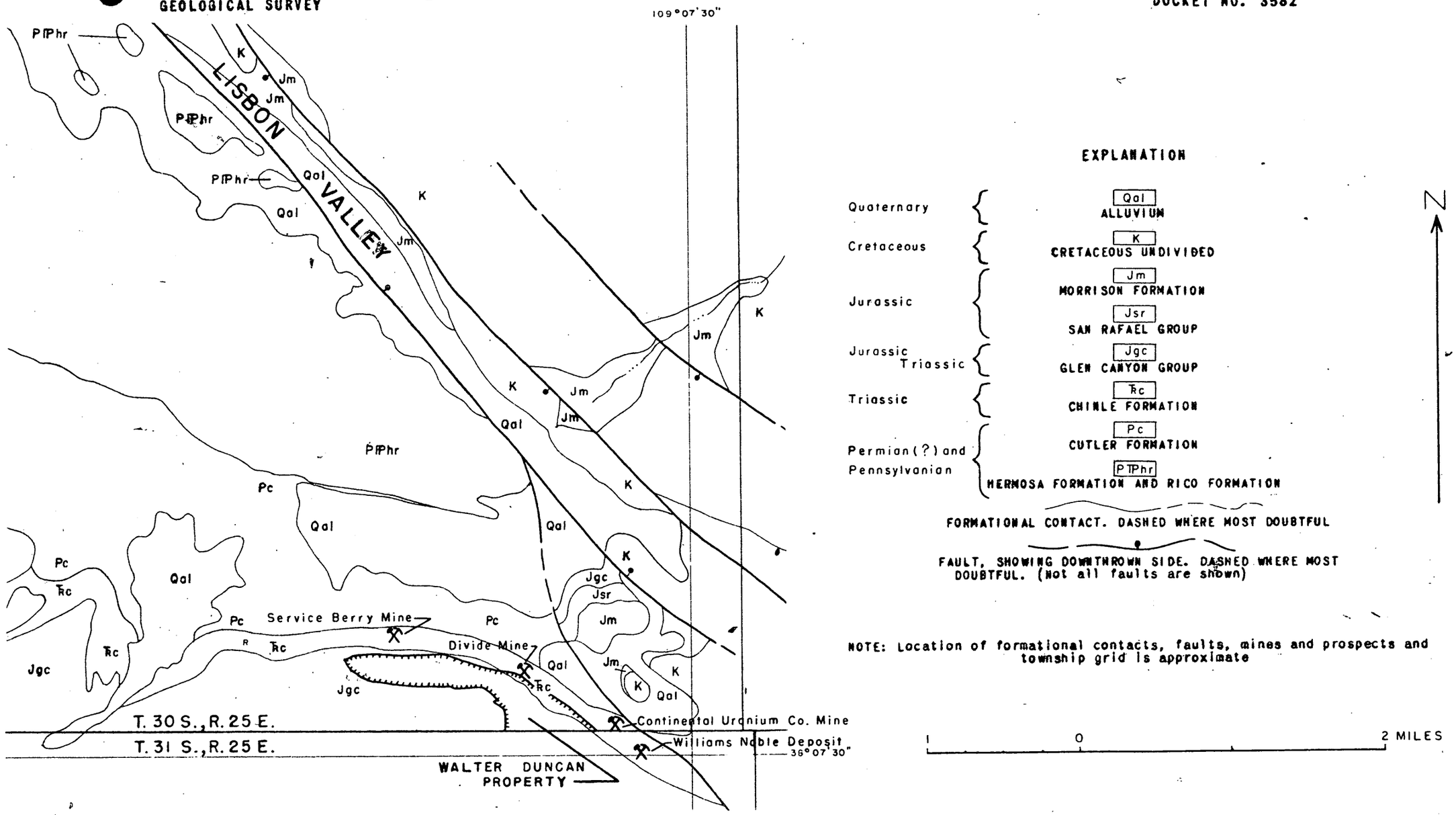


Figure 3. MAP SHOWING GEOLOGIC SETTING OF THE WALTER DUNCAN CO. MINING CLAIMS, LISBON VALLEY AREA, SAN JUAN COUNTY, UTAH

700

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

FEB 5 1957

Mr. J. Walter Duncan, Jr.
Walter Duncan Mining Company
P. O. Box 1468
Cortez, Colorado

Re: Docket No. D.M.A-3582 (Uranium)
Contract No. Lum-1796
Red Rock Claims, et al.
San Juan County, Utah

Dear Mr. Duncan:

In connection with the Acting Administrator's letter to you of January 10, 1957, regarding the subject project contract, enclosed is correspondence forwarded on the same date to Mr. R. F. Jenkins, Moab, Utah, who signed Owner's Consents to Lien. This mail was returned by the Post Office for the reasons checked on the envelope.

Since our file does not contain the full address for Mr. R. F. Jenkins, we will appreciate your forwarding these letters to him.

Sincerely yours,

S. O. Mittendorf

Administrator

FMurphy/lzm 2-4-57
cc to: Code 700
Mr. Murphy
Admr.'s Reading File
DMEA Field Team, Reg. 3(2)

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

JAN 13 1957

Mr. J. Walter Duncan, Jr.
Walter Duncan Mining Company
P. O. Box 1468
Cortez, Colorado

Re: Docket No. DMEA-3582 (Uranium)
Contract No. Idm-2796
Red Rock Claims, et al.
San Juan County, Utah

Dear Mr. Duncan:

In connection with the Acting Administrator's letter to you of January 10, 1957, regarding the subject project contract, enclosed is correspondence forwarded on the same date to Mr. F. B. Jenkins, Grand Junction, Colorado, who signed an Owner's Consent to Lien. This mail was returned by the Post Office for the reasons checked on the envelope.

Since our file does not contain the full address for Mr. Jenkins, we will appreciate your forwarding these letters to him.

Sincerely yours,

R. O. [illegible]

Administrator

Enclosures

FMMurphy/gla/kam 1-17-57
cc to: Code 700
Mr. Murphy
Admr.'s Reading File
DMEA Field Team, Reg. 3 (2)

JAN 8 1958

Mr. J. Walter Duncan, Jr.
Walter Duncan Mining Company
P. O. Box 1168
Cortez, Colorado

Re: Docket No. DMA-3582 (Uranium)
Contract No. Idn-8796
Red Rock Claims, et al.
San Juan County, Utah

Dear Mr. Duncan:

Reference is made to your terminated exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the period indicated.

Your interest in the DMA exploration program and participation therein are fully appreciated.

Sincerely yours,

Frank H. Johnson

ACTING Administrator

FMMurphy/gla
1-8-58
cc to: Admr.'s Reading File
Code 700
Mr. Murphy
DMA Field Team, Region III (2)
Contract Adm. & Audit Division
G. O. Patterson, Moab, Utah
R. F. Jenkins, " "
Lyle Francis, " "
F. B. Jenkins, Grand Junction, Colorado
Quentin S. Bullock, P. O. Box 322, Bryan, Texas
Frank L. Seymour, 317 Main Street, Grand Junction, Colorado

JAN

Mr. C. O. Patterson
Moab, Utah

Re: Docket No. DMEA-3582 (Uranium)
Contract No. Idm-3796
J. Walter Duncan, Jr., d/b/a
Walter Duncan Mining Company
Red Rock Claims, et al.
San Juan County, Utah

Dear Mr. Patterson:

Reference is made to the undated Owner's Consents to Lien which you executed in connection with the DMEA contract for an exploration project on property located in San Juan County, Utah.

For your information, there is enclosed a copy of our letter of this date to Mr. J. Walter Duncan, Jr., Walter Duncan Mining Company, P. O. Box 1468, Cortez, Colorado, advising that the Government retains no claim or lien against the property described in the contract or on any future production therefrom.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

Enclosure

Similar letters to: R. F. Jenkins, Moab, Utah
F. B. Jenkins, Grand Junction, Colorado

FMMurphy/gla
1-7-57
cc to: Admr.'s Reading File
Code 700
Mr. Murphy
DMEA Field Team, Region III (2)
Contract Adm.& Audit Division

JAN [illegible]

Mr. Quentin F. Bullock
P. O. Box 322
Bryan, Texas

Re: Docket No. [illegible]A-3582 (Uranium)
Contract No. [illegible]-5796
J. Walter Duncan, Jr., d/b/a
Walter Duncan Mining Company
Red Rock Claims, et al.
San Juan County, Utah

Dear Mr. Bullock:

Reference is made to the Owner's Consent to Lien which you executed on March 14, 1955, in connection with the DMTA contract for an exploration project on property located in San Juan County, Utah.

For your information, there is enclosed a copy of our letter of this date to Mr. J. Walter Duncan, Jr., Walter Duncan Mining Company, P. O. Box 1468, Cortez, Colorado, advising that the Government retains no claim or lien against the property described in the contract or on any future production therefrom.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

Enclosure

FMMurphy/gla
1-7-57
cc to: Admr.'s Reading File
Code 700
Mr. Murphy
DMTA Field Team, Region III (2)
Contract Adm. & Audit Division

JAN 1[illegible] 1957

Mr. Frank L. Seymour
317 Main Street
Grand Junction, Colorado

In: Docket No. [illegible]-3[illegible]2 (Premium)
Contract No. [illegible]-796
J. Walter Duncan, Jr., d/b/a
Walter Duncan Mining Company
Red Rock Claims, et al.
San Juan County, Utah

Dear Mr. Seymour:

Reference is made to the consent to lien which you executed on May 1[illegible], 1955, in connection with the DMEA contract for an exploration project on property located in San Juan County, Utah.

For your information, there is enclosed a copy of our letter of this date to Mr. J. Walter Duncan, Jr., Walter Duncan Mining Company, [illegible] P. O. Box 1[illegible], Cortez, Colorado, advising that the Government retains no claim or lien against the property described in the contract or on any future production therefrom.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

Enclosure

FEJhurply/gla
1-7-57
cc to: Adm.'s Reading File
Code 700
Mr. Murply
DMEA Field Team, Region III (2)
Contract Adm.'s Audit Division

JAN 10 1957

Mr. Lyle Francis
Moab, Utah

Re: Docket No. DMA-3582 (Uranium)
Contract No. [illegible]-[illegible]796
J. Walter Duncan, Jr., d/b/a
Walter Duncan Mining Company
Red Rock Claims, et al.
San Juan County, Utah

Dear Mr. Francis:

Reference is made to the undated Owner's Consent to Lien which you executed in connection with the DMA contract for an exploration project on property located in San Juan County, Utah.

For your information, there is enclosed a copy of our letter of this date to Mr. J. Walter Duncan, Jr., Walter Duncan Mining Company, P. O. Box 1163, Cortez, Colorado, advising that the Government retains no claim or lien against the property described in the contract or on any future production therefrom.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

Enclosure

FMurphy/gla
1-8-57
cc to: Admr.'s Reading File
Code 700
Mr. Murphy
DMA Field Team, Region III (2)
Contract Adm. & Audit Division

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

RECEIVED
SEP 12 1956

224 New Customhouse
Denver 2, Colorado

September 7, 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium) Contract Idm-E796, Walter Duncan Mining Company (White Rock and Paragon claims) San Juan County, Utah - FINAL PAYMENT

Enclosed are two copies of a memorandum to T. A. Christensen, dated August 28, 1956, relative to final payment under the terms of the subject contract.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
SEP 12 1956

224 New Customhouse
Denver 2, Colorado

August 28, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium) Contract Idm-E796, Walter Duncan Mining Company (White Rock and Paragon claims) San Juan County, Utah - FINAL PAYMENT

Reference is made to our memorandum of April 18, 1956, whereby we transmitted the final Form MF-104, Operator's Monthly Report and Voucher, for the month of February, 1956 and requested that you withhold the amount of $250.00 pending resolution of matters relative to closing the account.

The Operator's final report has been received; therefore, we recommend that final payment to the Operator be made on the following basis, which is in conformance with the Report of Review of contract expenditures by the Contract Administration and Audit Division, dated August 27, 1956, which was released to this office August 27, 1956.

Basis for Final Payment

Total Accepted Cost- - - - - - - - - - - - - - - - - - - -	$36,906.41
Government Participation at 75 Percent- - - - - - -	27,679.82
Total Prior Payments- - - - - - - - - - - - - - - - - - -	27,429.82
Balance due the Operator	$ 250.00

$250.00
9/4/56 DMA 57-27

W. M. TRAVER

W. M. Traver

JDC:jy
cc: Corresp. E796
MF-104 File E796
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

8/30/56

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

J. Walter Duncan
d/b/a Walter Duncan Mining Company
P. O. Box 1468
Cortez, Colorado

pertaining to Exploration Project Contract No. Idm-K796, Docket No. DMEA-3582, for the period July, 1955 to February, 1956, covering a project for the exploration of Uranium on property known as Red Rock Claims, et al., located in San Juan County, Utah.

My review included an examination of the Monthly Reports (Form MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Executive Officer, DMEA Field Team, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the following reason:

> All of the costs incurred were under a contract provision for payment by the Government on the basis of fixed unit costs of units of work actually performed.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by Contractor		$36,906.41
Exceptions:		
By DMEA Finance Officer	$0.00	
Herewith	0.00	0.00
Total Accepted Cost		$36,906.41

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Twenty-seven thousand, six hundred seventy-nine and 82/100ths Dollars

** $27,679.82 **

is considered valid and proper, provided that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

August 27, 1956

T. H. Brading, Auditor.

Audit Report
of Review

8/22/56

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

224 New Customhouse
Denver 2, Colorado

August 20, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium), Contract Idm-R796, Walter Duncan Mining Company, San Juan County, Colorado

Enclosed are the Government's, Division, and Docket copies of the "TERMINATION AGREEMENT" which was forwarded by your letter of August 2, 1956, for signature by the Operator and this office.

Copies of the Termination Agreement have been distributed to the Operator, the Finance Office, Region III, and others concerned.

W. M. Traver

W. M. Traver

Enclosures

RECEIVED
AUG 22 1956

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

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

AUG - 2 1956

Re: Docket No. DMEA-3587 (Uranium)
Contract No. Idm-8796
J. Walter Duncan, Jr., d/b/a
Walter Duncan Mining Company
Red Rock Claims, et al.
San Juan County, Utah

Dear Mr. Traver:

This is in response to your memorandum, dated July 2, 1956, in which you request our advice as to whether or not termination of the captioned contract by mutual agreement is necessary.

It is noted that all 13 holes allowed under Stage I of the contract and 7 of the 10 holes allowed under Stage II were completed, also, none of the 17 holes under Stage III were drilled. No uranium ore was discovered in the holes completed.

By inference your letter of April 16, to Mr. Charles F. Butler, manager of the Walter Duncan Mining Company, implies that the Government concludes that further drilling is not necessary and the project would be wound up on receipt of an adequate final report from the Operator. Copies of the Operator's Final Report were transmitted to this office with your memorandum of May 14, 1956. However, a formal termination of the contract by mutual agreement will be necessary. Therefore, we are enclosing copies of the agreement for execution.

The Administrator's final letter to the Operator will be prepared as soon as this office receives and reviews the Final Field Team Report, executed termination agreement, and the Final Audit relating to the subject contract.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee

APPROVED:

/s/ Robert W. Geeham

Member, Geological Survey

[illegible]

Member, Bureau of Mines

FMMurphy/ism (7-12-56) 7-19-56

cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm.3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

7-6-56

RECEIVED
JUL 5 - 1956

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

224 New Customhouse
Denver 2, Colorado

VIA AIR MAIL

July 2, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium), Contract Idm-E796, Walter Duncan Mining Company, San Juan County, Utah

It has been brought to our attention that, even though we initiated action toward that goal, the subject contract has not been officially terminated. In that respect, you are referred to our memorandum of April 12, 1956 to John F. Shaw and E. N. Marshman, two copies of which were forwarded to you at the time of writing, wherein we requested the field's recommendation relative to terminating the contract.

Subsequent to our request to the field for their recommendations, and disregarding the necessity to terminate the contract by mutual agreement, we indicated in correspondence to the Operator that his final report was in order.

In conjunction with the matter, we are enclosing the original and three copies of a memorandum from Carl Belser, Mining Engineer, Bureau of Mines, dated June 26, 1956, and transmittal thereof from John F. Shaw, Supervising Mining Engineer, dated June 27, 1956, relative to terminating the contract.

We will appreciate your reviewing the matter and advising us as soon as possible as to whether or not termination of the contract by mutual agreement is necessary.

The original and one copy of the Operator's final report were forwarded to you by memorandum of May 14, 1956.

W. M. Traver

W. M. Traver

Enclosures

RECEIVED
JUL 5 - 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
June 27, 1956

DMEA
Date Rec'd
JUN 28 1956
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
Supervising Mining Engineer

Subject: Docket DMEA 3582 (Uranium) Contract Idm-2796, Walter Duncan Mining Company (Red Rock, White Rock and Paragon claims) San Juan County, Utah

Enclosed are the original and 9 copies of a memorandum by Carl Belser recommending that Contract Idm-2796 be terminated.

JOHN F. SHAW

John F. Shaw
Supervising Mining Engineer

Enc.
JFS/mw
Idm-2796
Chron

RECEIVED
JUL 5 - 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
June 26, 1956

DMEA
Date Rec'd
JUN 28 1956
BUREAU OF MINES
Denver, Colorado

Memorandum

To: John F. Shaw, Supervising Mining Engineer

From: Carl Belser

Subject: Docket 3582 (Uranium) Contract Idm-5796, Walter Duncan Mining Company, (Red Rock, White Rock and Paragon claims) San Juan County, Utah -- Request for termination

The October 10, 1955 memorandum of J. W. Mealer and M. H. Salisbury concludes that Stage II drilling should be terminated with a seven hole program and written consent was granted on October 21, 1955.

No ore was penetrated in any of the Stage I or Stage II holes.

The operator wrote a final report included with his progress reports for February. In his first paragraph of this report he states "No significant mineralization has than far been found and we propose that the project be terminated."

A memorandum dated April 18, 1956 from W. M. Traver to T. A. Christensen -- quote "All authorized work under the contract has been completed."

Final payment of $850.00 was withheld pending the receipt of a separate final report. A copy of this final report is not in this office.

It is recommended the contract Idm-5796 be terminated.

Carl Belser

Carl Belser
Mining Engineer

CB/mw
Idm-5796
Chron

RECEIVED
JUL 5 - 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
June 27, 1956

DMEA
Date Rec'd
JUN 28 1956
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
Supervising Mining Engineer

Subject: Docket DMEA 3582 (Uranium) Contract Idm-2796, Walter Duncan Mining Company (Red Rock, White Rock and Paragon claims) San Juan County, Utah

Enclosed are the original and 9 copies of a memorandum by Carl Belser recommending that Contract Idm-2796 be terminated.

JOHN F. SHAW

John F. Shaw
Supervising Mining Engineer

Enc.
JFS/mr
Idm-2796
Chron

RECEIVED
JUL 5 - 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
June 26, 1956

DMEA
Data Rec'd.
JUN 28 1956
BUREAU OF MINES
Denver, Colorado

Memorandum

To: John F. Shaw, Supervising Mining Engineer

From: Carl Belser

Subject: Docket 3582 (Uranium) Contract Ida-2796, Walter Duncan Mining Company, (Red Rock, White Rock and Paragon claims) San Juan County, Utah -- Request for termination

The October 10, 1955 memorandum of J. W. Hasler and M. N. Salsbury concludes that Stage II drilling should be terminated with a seven hole program and written consent was granted on October 22, 1955.

No ore was penetrated in any of the Stage I or Stage II holes.

The operator wrote a final report included with his progress reports for February. In his first paragraph of this report he states "No significant mineralization has thus far been found and we propose that the project be terminated."

A memorandum dated April 18, 1956 from W. M. Traver to T. A. Christensen -- quote "All authorized work under the contract has been completed."

Final payment of $850.00 was withheld pending the receipt of a separate final report. A copy of this final report is not in this office.

It is recommended the contract Ida-2796 be terminated.

Carl Belser

Carl Belser
Mining Engineer

CB/mr
Ida-2796
Chron

RECEIVED
JUL 5 - 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
June 27, 1956

DMEA
Date Rec'd.
JUN 28 1956
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
Supervising Mining Engineer

Subject: Docket DMEA 3582 (Uranium) Contract Idm-8796, Walter Duncan Mining Company (Red Rock, White Rock and Paragon claims) San Juan County, Utah

Enclosed are the original and 9 copies of a memorandum by Carl Balser recommending that Contract Idm-8796 be terminated.

JOHN F. SHAW

John F. Shaw
Supervising Mining Engineer

Enc.
JFS/mr
Idm-8796
Chron

RECEIVED

JUL 5 - 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
June 26, 1956

DMEA
Date Rec'd.

JUN 28 1956

BUREAU OF MINES
Denver, Colorado

Memorandum

To: John F. Shaw, Supervising Mining Engineer

From: Carl Belzer

Subject: Docket 3582 (Uranium) Contract 14m-2796, Walter Duncan Mining Company, (Red Rock, White Rock and Paragon claims) San Juan County, Utah -- Request for termination

The October 10, 1955 memorandum of J. W. Kesler and M. H. Salsbury concludes that Stage II drilling should be terminated with a seven hole program and written consent was granted on October 21, 1955.

No ore was penetrated in any of the Stage I or Stage II holes.

The operator wrote a final report included with his progress reports for February. In his first paragraph of this report he states "No significant mineralization has thus far been found and we propose that the project be terminated."

A memorandum dated April 18, 1956 from W. M. Traver to T. A. Christensen -- quote "All authorized work under the contract has been completed."

Final payment of $850.00 was withheld pending the receipt of a separate final report. A copy of this final report is not in this office.

It is recommended the contract 14m-2796 be terminated.

Carl Belzer

Carl Belzer
Mining Engineer

CB/mr
14m-2796
Chron

5-17-56

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

RECEIVED
MAY 17 1956

224 New Customhouse
Denver 2, Colorado

May 14, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium), Contract Idm-E796, Walter Duncan Mining Company (White Rock and Perryton Claims), San Juan County, Utah.

Enclosed are the original and one copy of the Operator's final report pertaining to work completed under the subject contract, which was received in this office May 14, 1956.

The Field Team final report will be forwarded as soon as the engineering and geologic sections are made available to this office.

E. N. Harshman

E. N. Harshman

Enclosures

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

RECEIVED
DMEA MAY 17 1956
Date Rec'd.
MAY 14 1956
BUREAU OF MINES
Denver, Colorado

FINAL NARRATIVE REPORT

DMEA 3582

INTRODUCTION:

Application for aid in an Exploration Project pursuant to DMEA Order 1 was approved and granted on June 10, 1955 as Contract No. Idm-E 796, Docket No. DMEA-3582. This contract was between the United States of America acting through the Department of the Interior, Defense Minerals Exploration Administration and J. Walter Duncan, Jr., dba Walter Duncan Mining Company.

Exploratory drilling operations under this contract were commenced in July, 1955 and completed in February, 1956. No discovery resulted from this work.

PURPOSE AND PLAN:

Plate 1 shows the location of the project in relation to regional geology and to the main ore deposits in the Lisbon Valley area. This area has proven itself as a major uranium producing district, and several large ore bodies have been found in basal Chinle sandstones on the Southwest flank of the Lisbon Valley anticline.

Exploratory work in the project area was proposed because of its location within the Lisbon Valley district and because of its proximity to known ore bodies and favorable outcrops. Recent drilling by the Continental Uranium Company had resulted in the discovery of a 75,000 to 100,000 ton ore body in the Southwest corner of Section 36, T 30 S, R 25 E and within 1000 feet of the Western boundary of the project area.

Mineralized outcrops from a knife edge to thirty feet in thickness near the Northern boundary of the project area were considered favorable criteria. The East-West trend of the Continental ore body plus the aforementioned mineralized outcrops suggested a possible continuation of the ore bearing host rock sandstone of the Continental Mine to these outcrops. The purpose of the drilling project was to trace out these sandstone lenses and to determine whether ore in commercial quantities was present.

The initial project plan divided the exploratory drilling in three stages. Stage 1 consisted of building access roads to and preparing 13 drill sites and drilling 13 holes not to exceed an aggregate of 8501 feet. The holes were plug bit drilled to the ore horizon, and cored for the last 40 feet. Stage 1 holes are numbered 1 through 13 on the enclosed drill map, and were located so as to intersect any sandstone channels or lenses treading in an East-West direction.

Operator's final report

Stages 2 and 3 consisted of further drill site preperations and exploratory drilling. Seven holes were drilled in Stage 2 to test and evaluate an area of thick basal Chinle sandstone in the Eastern portion of the project area. Because of the negative results of this work, Stage 3 was not authorized and the project was terminated.

GEOLOGICAL EVALUATION OF RESULTS:

Logs of all holes drilled in Stage 1 and 2 are submitted as part of this final report. Thicknesses of the basal Chinle sandstone plus structure contours of the Chinle-Cutler contact are shown on the drill map accompanying the report.

As shown by the logs and drill map, several of the drill holes encountered favorable sections of carbonaceous, pyritic, medium to course grained, gray sandstones ranging from one to twenty feet in thickness. However, the original theory of an East-West trending sandstone lense that would connect the host rock of the Continental Mine with the outcrop of the Service Berry mine was shown to be erroneous by the results of the drilling.

The sandstone cores from all the DMEA drilling appeared well washed and leached. Although feldspar was noted in some of the cores, most of the interstitial material in the sands was of a clayey or argillaceous nature, and was probably decomposed feldspar. The inference here is that the basal Chinle sand lenses were washed and flushed by ground water in this particular area.

Structure contours on the base of the Chinle show no particular scouring or channeling, either within the limits of the DMEA project or within the areas of known ore North and East of the project boundary. This relatively uniform contact between the Chinle and the Cutler suggests that the depositionof the basal Chinle in this area was probably in a broad shallow basin rather than in a sharply delineated channel.

Post basal Chinle erosion probably accounts for the lenslike nature of the sandstone and the unconformable contact between the basal sand and the overlying mud stones.

The writer is unable to offer any particular suggestions for future drilling in this area except to recommend tracing out the basal Chinle sandstone lenses if future drilling were contemplated. Section 2, T 31 S, R 25 E, to the South of the DMEA project appears to be favorably situated for the extension of the lenses, but drill depths are all in excess of 700 feet.

ENGINEERING EVALUATION OF RESULTS:

Drilling conditions on this project were difficult, but no particular problems other than the usual problems associated with deep drilling were encountered. A Mayhew 1000 rotary was employed for this job.

The normal drilling procedure was to drill with air as far as possible and then to use water to complete the hole. Circulation was lost several times in the Wingate and Chinle formation and several holes were abandoned and redrilled on offset locations because of this problem. Core recovery was about 90%.

ESTIMATE OF ORE RESERVES:

No ore was encountered as a result of the DMEA drilling.

COMPLETE ASSAY DATA:

Although several slightly mineralized holes were encountered, no chemical samples were taken. However, all holes were probed by either the Duncan Babbel unit or the USGS Baraby unit. The drilling map shows those holes that showed from .01 to .05% U_3O_8 as a result of the radiometric probing.

SUMMARY OF WORK PERFORMED:

Bulldozing - Access roads and drill sites were constructed for the 20 DMEA holes of Stages 1 and 2. Actual costs of surveying and constructing these roads and drill sites is estimated at $1000.00.

Drilling - Stages 1 and 2 required 11,763 feet of plug bit drilling and 727 feet of coring. Actual costs of this drilling, based on a charge of $2.25 per foot from the Walter Duncan Drilling Company to the Walter Duncan Mining Company, were $28,102.50. The drill rig was operated on a two shift basis for about five months. Based on an average operating cost of $5,500 per month for a two shift full time operation, actual drilling costs for this project were quite close to DMEA unit cost calculations.

Other Work - One full time geologist was employed on the project during the drilling of Stages 1 and 2. This man supervised the taking of cuttings and core samples, logged and probed drill holes, surveyed drill sites and did all other duties necessary to the satisfactory technical progress of the work described in the contract. In addition to these duties, the geologist collected and compiled data from drilling operations on properties adjoining the DMEA project and

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

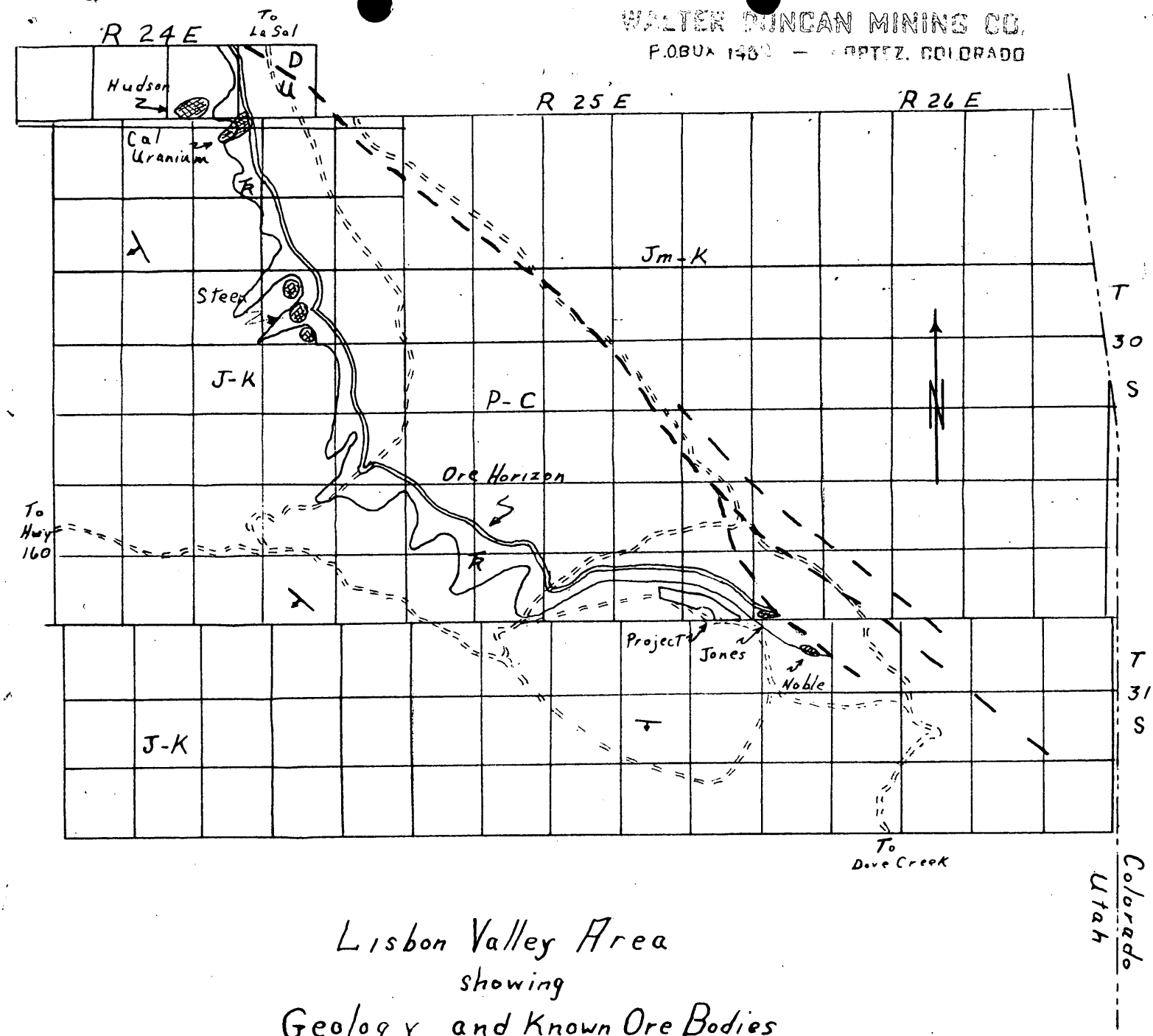
incorporated this data into the overall geologic picture for the project.

UNIT COSTS:

Total costs of the project as calculated from the fixed unit cost figures of the contract were $36,906.41. Core drilling totaled 727 feet and at a unit cost of $4.49 per foot totaled $3264.23. Plug bit drilling totaled 11,763 feet, and at a unit cost of $2.86 per foot totaled $33,642.18. The unit costs for drilling included the cost of access roads, preparing drill sites, and all other costs whatsoever necessary in connection with the performance of the project work.

Charles R Butler

WALTER DUNCAN MINING CO.
P.O.BOX 1480 — CORTEZ, COLORADO



Lisbon Valley Area
showing
Geology and Known Ore Bodies
1" = 2 miles

C - Pennsylvanian
P - Permian
Ꞧ - Triassic Chinle fm
J-K Jurassic + Cretaceous
— — Fault
Ore body

PLATE I

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

RECEIVED
MAY 17 1956

Project Lisbon Valley
Drill Hole No. DMCA #1
Collar Elev.
Total Depth 697
Location

Date July 1, 1955
Ore
Line X
Bar.

By - W. T. Davis

From	To	Rock	Color	Texture	Remarks
0	32	SS	Red		Moyenta
32	294	SS	Red-Buff		Wingate
294	657	sh, ss, mudstone	Red-green		Chinle.
657	672	SS	gray-green		Chinle
672	682	SS	light gray	sparce	Medium grained sugar SS with cong. lenses. This is ore sand of Moss back member of lower Chinle.
682	682.9	siltstone	lightgray	medium	Chinle. Slight mineralization 682 - 682.4
682.9	697	mudstone siltstone	dark red and gray		Cutler ?

Note - Mineralized core will be assayed.

Summary of Lot. Oil: Thick 10' SS Color

Sh. Under Oil S.S.

Core zone - 657 to 697
Recovery - 95%

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project: Lisbon Valley
Drill Hole No.: DMA 62
Collar Elev.:
Total Depth: 719
Location:

Date Ore.: July 12, 1955
Min.:
Bar.:

Hole probed by Duncan 7/12/55

From	To	Rock	Color	Carbon	Remarks
0	69	SS	Red		Mayenta
69	922	SS	Red-buff		Wingate
922	540	SH	Red		Chinle
540	679	SH	Gray-green	Traces	Chinle Micaceous
679	696	Siltst	Gray Gray-green		Some into blue mudstone.
696	700	Siltst	Splits		
700	707	Mudst	Green		Conglomeritic
707	713	SS	White	None	Fine grained, Clear
713	714	Mudst	Green		Cutler? Micaceous
714	719	Mudst	Red		Cutler

Summary of Lot. C.B.S. _____ Thick 6' SS Color White

Sh. _____ Under C.B.S.

Core zone - 679 to 719
Recovery 95%.

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DHRA #3
Collar Elev.
Total Depth 603
Location

Date 7/15/55
Ore.
Min. X
Bar.
Probed 7/15/55 by Duncan and also USGS.

From	To	Rock	Color	Carbon	Remarks
0	205	SS	Red-buff		Wingate
205	370	SS-mudst	Red		Chinle
370	563	Mudst	gray-green	traces	Chinle (Mooseback)
563	583	Mudst	Green		See note below
					Chinle mineralized approx. 0.05% o U3O8 576 to 577.7'
583	586	Mudst	green		
586	589	mudst	gray-green	medium	conglomeritic
586	589	mudst			
589	590	siltst	green		micaceous _ Cutler?
590	603	siltst	Red		micaceous - Cutler

Summary of Lot. O.B.S. _____ Thick less than 10% Color _____

Sh. _____ Under O.B.S.

Had 50% recovery in first 20' core. Lost mineralized section.

WALTER BUNTAN MINING COMPANY

DRILL HOLE LOG

Project Ficken Valley
Drill Hole No. DHM 4A
Collar Elev.
Total Depth 678
Location

Date Aug. 26, 1955
Ore.
Min.
Bar.
Probed by USGS

From	To	Rock	Color	Carbon	Remarks
0	40	ss	tan		Bayonta
40	280	ss	tan		Kingate
280	438	ms, ss	red		Chinle
438	640	ms	green		Chinle
640	657	ss	green		Slight min. 644.7 - 645.7
657	660	mds cong	green	sparce	abundant pyrite
660	661	mds, slts	gn & gr	sparce	
661	661.5	mds cong	gn & gr		large mds inclusions
661.5	665	slts	gn & gr		mds inclusions
665	670	ss	red		Cutler, gn mds splits
Core zone 640 - 678					

Summary of Lot. OBS _____ Thick 0 BS Color _____

Sh. _____ Under O.S.B.S.

Unfavorable

WALTER BUTLER MINING COMPANY

DRILL HOLE LOG

Project: Lisbon Valley
Drill Hole No.: BMBA 5
Collar Elev.:
Total Depth: 645
Location:

Date Org.: August 15, 1955
Min.:
Bar.: X

From	To	Rock	Color	Carbon	Remarks
0	248	SS	lt br		Ingate
248		SS, ms	red		Shinle
	605	ms	gn		Shinle
605	622	ms	gn	sp	slight min. 610 - 612
622	625.5	ms cong	wh & gn	ab	pyrite & lc, gn ms galls
625.5	626.7	SS	wh	sp	fine gm
626.7	645	SS, ms	red		gn layers - Cutler
Core zone 605 - 645					

Summary of Int. OBS 0 Thick 0 SS Color

Sh. Under C.B.S.S.

Unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMBA - 6
Collar Elev.
Total Depth 587
Location

Date Aug. 17, 1955
Ore.
Min.
Bar. X

From	To	Rock	Color	Carbon	Remarks
0	197	SS	lt bn		Wingate
197	460	ms	red		Chinle
460	547	ms	gn		Chinle
547	549	ms cong	gn	med	
549	551	var.ms,ss	gn, gr	med	
551	557.5	ms	gn, gr		splits
557.5	558.5	ms cong.	gn, gr	med	limy
558.5	569	ms cong	gn, gr	med	interbedded, limy
569	577	ms cong	gn, gr	med	limy
577	580.5	ms	gn	med	
580.5	581	ss	wh		fine grained
581	587	ms, ss	red		Cutler
Core zone 547 - 587					

Summary of Lot. CBSS Thick 0 SS Color

Sh. Red Under C.B.S.S.
Unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

RECEIVED
MAY 17 1956

Project Lisbon Valley
Drill Hole No. DDDA # 7
Collar Elev.
Total Depth 540
Location

Date August 17, 1955
Ore.
Min.
Bar. X
Probed by USGS

From	To	Rock	Color	Carbon	Remarks
0	152	ss	tan		Wingate
152	350	ms	red	Chinle	
350	500	ms	gn		Chinle
500	520	ms	lt gn	med	(mcs)
520	534	ss	ltgn		(mcs)
534	540	ss, ms	red		(mcs) Cutler
Core zone - 500 - 540					
Note: No core recovered from 534 to 540, but cuttings were saved.					

Summary of Lot. OBS _____ Thick 0 SS Color _____

Sh. _____ Under O.B.S.

unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project
Drill Hole No. Lisbon Valley
Collar Elev. [illegible] 8
Total Depth
Location 520

Date
Ore. Aug. 29, 1955
Min.
Bar. x

Probed by USGS

From	To	Rock	Color	Carbon	Remarks
0	140	ss	tan		Kingate
140	360	ms	red	Chinle	
360	500	ms	gn		Chinle
500	502	silts	gr, gn	med	gn ms galls
502	502.5	silts	gr, gn	med	large flakes carbon
502.5	508	ms,ss cong	gr, gn	med	gr size and carbon increasing in lower section
508	508.2	carbon	black	all	abundant pyrite
508.2	513	ms,ss,cong	gr,gn	med	med to large grn size. more cong at base
513	515	ms	gn		Clay
515	520	ms,ss	chec red	med	Cutler
498	499	Cabbie probe shows .02e U_3O_8 to .10e U_3O_8			
Core zone 500 - 520					

Summary of Lot. OBSS ms,ss Thick 11' SS Color
Sh. cong. Under O.B.S.S.

Semi-favorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 9
Collar Elev.
Total Depth 570
Location

Date Sept 1, 1955
Ore.
Min.
Bar. X
Probed by Duncan

From	To	Rock	Color	Carbon	Remarks
0	186	ss	tan		Wingate
186	425	ms	red		Chinle
425	530	ms	gn		Chinle
530	545	ms	gn		
545	552	ms	gr-gn		(mcs) gn ms galls
552	556	ms	gr-gn	sp	(mcs)
556	560.5	slts	gn		(mcs)
560.5	565	ss-ms	wh-gr	med to ab	limy, some feldspar
					some pyrite
565	565.5	ss	wh-gr	m2 sp	XI limy, gn grn, feldspar
565.5	567	ms	gn		
567	568	slts	gr-gn		Some feldspar
568	570	ms	choc. bn		(mcs) Cutler
Core zone 530 - 570					

Summary of Lot. OBS _____ Thick 0 SS Color _____

SH. _____ Under O.B.S.

Unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DHSA 10
Collar Elev.
Total Depth 745
Location

Date Ore. Sept 12, 1955
Min.
Bar. X

Probed by USGS to 725.5
Probed by Duncan to bottom

From	To	Rock	Color	Carbon	Remarks
0	348	ss	tan		Wingate
348	552	ms	red		Chinle
552	705	ms	gn		Chinle
705	706.5	ms cong	gn	ab	Some pyrite
706.5	708	slts	gn	med	Carbon parting at 708
708	709	ms cong	gn	med	
709	728.8	ss,slts	gr-gn	med	(mcs) fine grn
728.8	733.5	ms cong	gn	med	gn ms galls
533.5	735				no core recovery
735	744	ss	wh	none	fine to course grn. Some feldsp. pebbles. Quartzitic in places
744	754	ms-slts	chec brn		Cutler
Core zone 705 - 744					
Hole plugged from 744 to 754 to confirm Chinle - Cutler contact.					

Summary of Lot. OBSS ss Thick 0 SS Color

Sh. Under O.B.S.S.

Semi-favorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

RECEIVED
MAY 17 1956

Project Lisbon Valley
Drill Hole No. DMEA 11
Collar Elev.
Total Depth 482
Location

Date Sept 16, 1955
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon	Remarks
0	92	ss	tan		Wingate
92	315	ms	red		Chinle
315	430	ms	gn		Chinle
430	431	ms cong	gn, gr	ab	ab. pyrite, ms galls
431	442	ms	gn		(mcs)
442	443	ss	wh	sp	(mcs) gn to med grn
443	448	ms	gn		(mcs)
448	451	ms cong	gn-gr	med	some large ms galls
451	453	ms	gn	med	
453	458	ss	wh, gn	ab.	(mcs) Limy, fn grn
458	459	ss	wh,gn	ab.	(mcs) trashy, gr ms galls
459	460	ms	gn	ab.	(mcs)
460	461	ms cong	gn	ab.	(mcs) limy, mud galls
461	462	ss	wh	med	
462	467.5	ss	wh,gn	med	(mcs) clean med-fn grn
467.5	470	ms cong	gn,gr	ab.	pyrite, limy
470	471	slts	gn	ab.	pyrite
471	476.5	slts	wh		(mcs) Cutler?
476.5	482	ms	choc. brn		(mcs) Cutler
Core zone 430-482					

Summary of Lot. OBSS Thick 0 SS Color

Sh. Under O.B.S.S.

XX Unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 12
Collar Elev.
Total Depth 509
Location

Date Sept 20, 1955
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon	Remarks
0	105	ss	tan		Wingate
105	370	ms	red		Chinle
370	473	ms	gn		Chinle
473	485.5	ms	gn	med	(mcs)
485.5	495.5	ss,ms,cong	gr-gn	med	limy, large ms galls
495.5	497	ms cong	gr-gn	med	limy, pyrite
497	499.5	ms	red,purple		Cutler?
499.5	509	ms	choc.brn ~~XXXXX~~		(mcs) Cutler-grn ms
					inclusions
Core zone 473 - 509					

Summary of Lot. OBSS _____ Thick 0 SS Color _____

Sh. _____ Under O.B.S.S.

Unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 13
Collar Elev.
Total Depth 587
Location

Date Sept 21, 1955
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon	Remarks
0	198	ss	tan		Wingate
198	440	ms	red		Chinle
440	547	ms	gn		Chinle
547	569	ms	gn	sp-med	(mcs) Carbon increasing at base.
569	577	ms cong	gr-gn	med-ab	(mcs) Limy pyritic. some feldsp. pebbles in lower section, Carbon trash zone 572.5
577	579	ss	gr	med	vf grn limy, mud galls (mcs)carbon trash zone 578.5
579	580	ms	gn		(mcs) Cutler?
580	587	ms	choc.brn		(mcs) Cutler
Core zone	547-587				

Summary of Lot. OBSS Thick 0 SS Color

Sh. Under O.B.S.S.

Unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 14
Collar Elev.
Total Depth 672
Location

Date Sept. 30, 1955
Ore.
Min.
Bar. X
Probed by USGS ~~ZNX~~ & Duncan

From	To	Rock	Color	Carbon	Remarks
0	15	ss	red		Kayenta
15	275	ss	tan		Wingate
275	545	ms	red		Chinle
545	632	ms	gn		Chinle
632	652	ms	gn	ab	
652	663	ss	wh-gr	ab	(msc) pyritic, med to course grn feldspar pebbles, trashy zones. Friable
663	664	slts	gr	sp	(mcs) pyritic
664	668	ms	gr-gn	~~s~~sp	(mcs)
668	669	ss	wh		limy, feldspar in lower sec.
669	670	ms	red,gn		(mcs) Cutler?
670	672	ms	bhio.brn		(mcs) gn ms inclusions Cutler
Core zone 632 - 672					

Summary of Lot. O.B.S. ss Thick 11' SS Color

Sh. Under O.B.S.

Semi-favorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project: Lisbon Valley
Drill Hole No.: DMEA 15
Collar Elev.: 7073
Total Depth: 646
Location:

Date: Oct 3, 1955
Ore.:
Min.: X
Bar.:

Probed by USGS & Duncan

From	To	Rock	Color	Carbon	Remarks
0	236	ss	tan		Wingate
236	475	ms	red		Chinle
475	592	ms	gn		Chinle
592	593	ms cong	gn	sparce	(mes) ms galls
593	605	ms	gn	sp. to ab	(mes)
605	605.5	cong	wh	med	friable, limy
605.5	621	ss	wh	med to ab.	med. grn, friable, limonitic carbon trash zones.
621	624	ms	gn		(mes) Cutler?
624	640	ms	choc. bn		Cutler

Core zone - 592 to 624

Hole plugged to 640 to confirm Cutler contact and to facilitate probing.

606 to 607 shows slight radioactivity .01e to .04e U308

Summary of Lot. OBS ss Thick 16' SS Color ~~ss~~ wh

Sh. green favorable Under O.B.S.

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 16
Collar Elev. 7071.1
Total Depth 685
Location

Date Oct. 15, 1955
Ore.
Min. X
Bar.

Probed by USGS & Duncan

From	To	Rock	Color	Carbon	Remarks
0	285	ss	tan		Wingate
285	530	ms	red	XXXXX	Chinle
530	649	ms	gr-gn		Chinle
649	651	ms-ss	gr-gn	sparce	(mcs) Limy, ms galls
651	652	ss cong	gr-wh		limy
652	654	ss	gr-wh	ab.	pyritic, fine to med. grn. carbon trash zones
654	654.5	ms	gn	ab.	(mcs)
654.5	656.5	ss	wh	sp	med to course grn, cong.
656.5	658.5	ss	wh	sp to med	fine to med grn.
658.5	659	ss	wh	ab	med to course grn. "½" highly radioactive carbon in trash zone at 558.5
659	669	ss	wh	sp to med	med to course grn, friable
669	671.5	slts	gn	sp	(mcs) Cutler?
671.5	685	ms	choc.br		(mcs) Cutler
Core zone 649 to 685					

Summary of Lot. O.B.S. ss Thick 18 S.S. Color wh

Sh. Under O.B.S.S.

favorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 17
Collar Elev.
Total Depth 612
Location

Date Oct. 18, 1955
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon	Remarks
0	227	ss	tan		Wingate
227	530	ms	red		Chinle
530	582	ms	gr-gn		Chinle
582	584	slts	gr-gn	med	
584	584.5	ms cong	gn	med	large ms galls
584.5	605	ms	gn	sparce	
605	607.5	slts	gr	sparce	very hard, limy
607.5	612	ms	choc. br		(mcs) Cutler
Core zone - 528 to 612					

Summary of Lot. O.B.B. _____ Thick 0 B.B. Color _____

Sh. _____ Under O.B.B.B.

Unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 18
Collar Elev.
Total Depth 668
Location

Date Oct 7, 1955
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon	Remarks
0	275	ss	tan		Wingate
275	435	ms	red		Chinle
435	632	ms	gr-gn	s	Chinle
632	641.5	slts	gn-gr	med to ab	(mcs)
641.5	655	ms	gr-gn	sp	(mcs)
655	656	ss	sh-gr		med to fine grn, limy
656	658.5	ss	wh-gr		hard & med to fine grn, limy, some small ms gaits
658.5	660.5	slts	gr-gn	med to ab	(mcs)
660.5	662	ss	wh		med grn, some lim. stain
662	664.5	slts	gr-gn	med	some pyrite
664.5	665	ss	wh	limy, limonite, course grn	
665	668	ms	choc. brn		(mcs) Cutler
Core Zone 632 to 668					

Summary of Lot. OBSS ss Thick 1.5 SS Color wh

Sh. Under C.B.S.S.

Unfavorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 19
Collar Elev.
Total Depth 720
Location

Date Feb. 21, 1956
Ore.
Min.
Bar. X
Probed by Duncan & USGS

From	To	Rock	Color	Carbon	Remarks
0	60	ss	red		Kayenta
60	320	ss	tan		Wingate
320	600	ss,ms,sltst	red		Chinle - variegated
600	680	sltst, ms	green	grn	Chinle
680	k 690	ms	green		
690	700	ss	wh	traces	med to course grained, well washed and leached.
700	708	ss	wh	traces	"
708	720	ms,sltst	gr,choc.brn		Cutler
Core zone 680 to 720					
Note - second core dropped out of core barrel and had to drilled out with plug bit.					

Summary of Lot. OBS ss Thick 18' SS Color wh

Sh. Under O.B.S.S.

semi-favorable

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 20
Collar Elev.
Total Depth 612
Location

Date Feb. 29, 1956
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon	Remarks
0	205	ss	brown		Wingate
205	490	ss,sltst	red		chinle
490	572	ms	green		Chinle
572	584	ms	green,blue		
584	596	ss	white	nil	med to course grained, no carbon or pyrite, ss appeared washed and leached.
596	612	ms,sltst	red,green		Variagated in upper section Chocolate brown in lower. Cutler.
Core zone 572 to 612					

Summary of Lot. OBSS Thick 12' SS Color wh

Sh. Under O.B.S.S.

semi favorable....

RECEIVED
MAY 1 1 1966

5-8-56 izm

Murphy 5/8/56
Docket

Recd. 5-7-56

224 New Customhouse
Denver 2, Colorado

May 3, 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations-
DMEA-3767, Contract Idm-E877, Uranium Prospector's Company, Ltd. (Jack Rabbit group) Emery County, Utah
DMEA-3555, Contract Idm-E791, W. A. Greer (Operating agreement with Four Corners Exploration Company) (Bachelor claims) San Miguel and Montrose Counties, Colorado
DMEA-3582, Contract Idm-E796, Walter Duncan Mining Company (Red Rock et al. claims) San Juan County, Utah
DMEA-3613, Contract Idm-E86o, Chatu Uranium Mining Company, Inc. (Seven Mile property) Grand County, Utah
DMEA-3655, Contract Idm-E899, Bowles-Heflin Mining Company (J. V. Eaverson lease) San Miguel County, Colorado
DMEA-3896, Contract Idm-E910, Hecla Mining Company (Hot Rock et al. claims) San Juan County, Utah

Enclosed are four copies each of gamma-ray log interpretations for holes drilled on the subject properties.

W. M. Traver

Enclosures

C
O
P
Y

Walter Duncan Mining Co.
Lisbon Valley Area - San Juan County
Moab, Utah

GAMMA-RAY LOG INTERPRETATION DMEA Docket No. 3582

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-19 (Log #1)	712.0	None	0.0-694.5	Barren						
(Log #2)	720.0	None	657.4-705.6	690.3 - 691.8	1.5	300			<0.010	
DMEA-20	Not Known	None	5.0-567.4	Barren						

* From top to bottom depths

Walter Duncan Mining Co.
Lisbon Valley Area - San Juan County
Moab, Utah

GAMMA-RAY LOG INTERPRETATION DMEA Docket No. 3582

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-19 (Log #1)	712.0	None	0.0-694.5	Barren						
(Log #2)	720.0	None	657.4-705.6	690.3 - 691.8	1.5	300			<0.010	
DMEA-20	Not Known	None	5.0-567.4	Barren						

* From top to bottom depths

4-26-56

RECEIVED
APR 26 1956

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

Walter Duncan Mining Company
P. O. Box 1468,
Cortez, Colorado

FINAL DISTRIBUTION
APR 24 1956
MADE

Date: April 19, 1956
Payee's Reference: February 1956

DMEA-358 v

Gentlemen:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ 3,907.32

Difference $

Amount Approved $ 3,907.32

The reason for the difference was due to:

Reinstate $500.00 which was withheld from the October 1955 voucher.

Withheld - $250.00 pending resolution of matters relative to closing the account.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

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

224 New Customhouse
Denver 2, Colorado

April 18, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582 (Uranium) Contract Idm-E796, Walter Duncan Mining Company (White Rock and Paragon Claims) San Juan County, Utah - Operator's Monthly Progress Report for the month of February, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore, we recommend that payment be made on the following basis.

Reinstate the amount of $500.00 which was withheld from the October, 1955 Monthly Report and Voucher pending resumption of work under the contract.

Withhold an amount of $250.00 from this report pending resolution of matters relative to closing the account. All authorized work under the contract has been completed.

RECEIVED
APR 2 3 1956

Reconciliation with Amount Reported by the Operator on Form MF-104 for the Month of February, 1956

Amount Reported on Form MF-104		$3,907.32
Government Participation at 75 percent		$2,930.49
Amounts to be Reinstated and Withheld		
Amount to be Reinstated	$500.00	
Amount to be Withheld	250.00	
Net amount (to be Reinstated)		250.00
Net payment to the Operator, contingent on your verification of arithmetical accuracy within the report, and subject to subsequent review by the Contract Administration and Audit Division, DMEA		$3,180.49

Remarks

Date of Report----------March 15, 1956
Date Received in Field Office---------- March 19, 1956
Date Received in Region Office---------- April 11, 1956

W. M. TRAVER

W. M. Traver

Enclosures

JDC:jy
cc: MF-104 File E796
Sec. Op. Comm. (2)
J. F. Shaw (2)
J. W. Townsend w/copy engr's. report
J. D. Cooper
Chron.

DMEA
Date Rec'd.

APR 11 1956

REGION III

BUREAU OF MINES
Denver, Colorado

Building 20
Denver Federal Center
Denver 2, Colorado
April 11, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: Carl Belser

Subject: DMEA 3582, Contract Idm-2796 (Uranium) Red Rock, White Rock, and Paragon claims, Walter Duncan Mining Company, Secs. 34 and 35, T. 30 S., R. 25 E., Salt Lake Meridian, San Juan County, Utah - Progress report for February 1956

Drilling progress was inspected on March 7, 1956. There was no one at the property and the ground was covered with mud and snow. Considerable time was spent trying to locate the core from holes 19 and 20. The following Stage II holes were completed in February 1956:

Hole	Footage plug-bit	Footage Cored	Footage Total	Cutler Contact	Remarks
19	700	20	720	706	18-foot zone
20	572	40	612	600?	12-foot zone

Recapitulation

No. of holes	Footage plug-bit	Footage cored	Total Footage	
2	1,272	60	1,332	(Stage II holes drilled in Feb.)
5	3,103	174	3,277	(Stage II holes drilled previously
(7)	4,375	234	4,609	(Total Stage II holes)
13	7,388	493	7,881	(Total Stage I holes)
	11,763	727	12,490	(Total all holes)

The cost of 60 feet of core drilling at $4.49 a foot is $269.40, and the cost of 1,272 feet of core drilling at $2.86 a foot is $3,637.92, or a total of $3,907.32.

Payment of 75 percent of the amount claimed, or $2,930.49 is recommended.

The contractor's final report appears adequate for the return of the $250.00 withheld in October, 1955. No ore was encountered in any of the holes drilled. Total cost of the contract was $36,906.41, of which Government participation was 75 percent, or $27,679.81.

Carl Belzer

Carl Belzer
Mining Engineer

CB/mr

cc: 6
Idn-2796
Chron.

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
APR 26 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1956 Docket No. DMEA 3582 Contract No. Idm-E796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P. O. Box 1468 Cortez, Colorado
Contract Amount, $ 76,088.00 Government Participation: 75 % Amount, $ 57,066.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling plug	3637.92	30004.26	33642.18			
~~Drilling~~ core drill	269.40	2994.83	3264.23			
Crosscutting						
Drifting						
Sampling	0	0	0			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	3907.32	32999.09	36906.41	3,907.32	32,999.09	36,906.41

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 3-15-56 *Payee Walter Duncan Mining Company
Per Charles R Butler Title Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:
$ 3180.49
Signature [illegible]
(Authorized Certifying Officer)
Date 4/19/56 Vou. No. DMA 56-99
(See other side)

Note: Withheld 250.00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-4716 in accordance with the terms of the contract.

Signature [illegible] (2,930.49) Title Mining Engineer Date 3/20/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date APR 18 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
APR 26 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 1956 Docket No. DMEA 3582 Contract No. Idm-E796

Operator's Name Walter Duncan Mining Company Minerals Uranium

Address P. O. Box 1468, Cortez Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	feet	269.40	60	3264.23	727	4.49	1784	8010.16
Churn ~~Surplus bit~~	"	3637.92	1272	33542.18	11763	2.86	23716	67827.76
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Sampling	sample	0	0	0	0	5.00	50	250.00
TOTAL DISTRIBUTED COSTS		3907.32						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								76,088.00

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

REMARKS: Final Report

Date 3-15-56 Operator Walter Duncan Mining Co.

Per Charles R Butler Title Manager

NOTE.—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.

(Instructions on reverse)

(For Government use only) Carl Bolen

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

RECEIVED
APR 2 1956

FINAL NARRATIVE REPORT
DMEA 3582

February, 1956

Stage 2 of the DMEA project was completed in february with the drilling of holes DMEA No's 19 and 20. Although a favorable basal Chinle sandstone lense ranging from one to twenty feet thick has been delineated by this drilling, no significant mineralization has thus far been found and we propose that the project be terminated.

Drill logs for the February holes are attached as part of this report. DMEA No. 19 (see map) was drilled within the area of known basal Chinle sandstone and showed 18' of medium to course grained sand. However, the sandstone contained no pyrites and only traces of carbon. DMEA No. 20 was drilled to the west of the known basal Chinle sandstone, but surprisingly showed 12' of medium to course grained sand. This sand contained no pyrites and only traces of carbon.

The sandstone in both drill holes was typical of most of the sandstone encountered by the DMEA drilling in that it appeared well washed and leached. Although feldspar was noted in some of the cores, most of the interstitial material in the sands was of a clayey or argilaceous nature and was probably decomposed feldspar. The inference here is that the basal Chinle sand lenses were washed and flushed by ground water in this particular area.

Structure contours on the base of the Chinle show no particular scouring or channeling either within the limits of the DMEA project or within the areas of known ore North and East of the project boundary. This relatively uniform contact between the Chinle and the Cutler suggests that the deposition of the basal Chinle sand in this area was probably in a broad shallow basin rather than in a sharply delineated channel.

Post basal Chinle erosion probably accounts for the lenslike nature of the sandstone and the uncomformable contact between the basal sand and the overlying mud stones.

The writer is unable to offer any particular suggestions for future exploration in an area such as this except to say that he would recommend tracing out the basal Chinle sand stone lenses if future drilling were contemplated. Section 2, to the South of the DMEA project appears to be favorably situated for the extension of the lenses, but drill depths are all in excess of 700 feet.

Stages 1 and 2 of this contract required 11,763 feet of plug bit drilling and 727 feet of coring. Although several slightly mineralized zones were encountered, no chemical samples were taken. However, all holes

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

were probed by either the Duncan Babbel unit or the USGS Barnaby unit.

In conclusion, the writer would like to express his appreciation to William Hassler and George Carlyle and other members of the USGS and Bureau of Mines field teams for the expeditious and cooperative manner in which they assisted in the project. He would also like to express his appreciation to the members of the DMEA unit in Denver for their assistance and cooperation.

Charles R Butler

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

RECEIVED
APR 2 6 1956

Project Lisbon Valley
Drill Hole No. DHEA # 10
Collar Elev.
Total Depth 720
Location

Date Feb. 21, 1956
Ore.
Min.
Bar. X
Probed by Duncan and LOGS

From	To	Rock	Color	Carbon	Remarks
0	60	ss	red		Navajo
60	320	SS	tan		Wingate
320	600	SS,MS,sltst	red		Chinle - variegated
600	680	sltst, MS	green		Chinle
680	690	MS	green		
690	700	SS	white	traces	med to course grained, well
					washed and leached
700	703	SS	white	traces	"
703	720	MS, sltst	gr, chocbrn		Cutler
Core zone		680 to 720			
Note - second core dropped out of core barrel and had to be drilled out					
with plug bit.					

Summary of Log. OBSS SS Thick 10' SS Color white

Sh. Under O.B.S.S.

semi-favorable

CRB

WALTER DUNCAN MINING COMPANY

DRILL HOLE LOG

Project Lisbon
Drill Hole No. DMA # 20
Collar Elev.
Total Depth
Location

Date February 29, 1956
Ore.
Min.
Bar. X
Probed by Duncan and Wood

From	To	Rock	Color	Carbon	Remarks
0	205	SS	brown		Wingate
205	490	SS, sltst	red		Chinle
490	572	MS	green		Chinle
572	584	MS	green, blue		
584	596	SS	white	nil	med to course grained, no carbon or pyrite, SS appeared washed and leached.
596	612	MS, sltst	red, green		Variegated in upper section Chocolate brown in lower. Cutler.
	Core zone 572 to 612				

Summary of Log. OBSS _____ Thick 12' SS Color white

Sh. _____ Under O.B.S.S.

semi-favorable

CRB

4-18-56

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

RECEIVED
APR 20 1956

224 New Customhouse
Denver 2, Colorado

April 16, 1956

Mr. Charles F. Butler, Manager
Walter Duncan Mining Company
P. O. Box 1468
Cortez, Colorado

Re: Docket DMEA 3582 (Uranium),
Contract Idm-2796,
Walter Duncan Mining Company,
San Juan County, Utah

Dear Mr. Butler:

Reference is made to your narrative report accompanying form MF-104, Operator's Monthly Report and Voucher, for the month of February, 1956.

The narrative report is headed, "Final Narrative Report, DMEA 3582." However, the report is not considered as adequate to satisfy the requirements under Article 6(c) of the contract form pertaining to your rendering of a final engineering and geologic report relative to the work performed under the contract.

The narrative report in itself would be considered adequate under the circumstances had it been supported by geologic logs and other pertinent data pertaining to all the work completed under the contract.

A final report rendered by the Operator under a DMEA contract must be complete in itself without making it necessary for a reviewer to refer to data attached to prior accounting reports. Therefore, please submit your final engineering and geologic report in quintuplicate as separate from the narrative report accompanying the last accounting report. The narrative portion of your final report should contain a summary of the number of holes completed, the total footage completed, the total cost of performing the work, and the resulting unit cost. Each copy of the report should be complete with logs, maps, and all other pertinent data.

The sum of $230.00 will be withheld from reimbursement to you in processing the MF-104 report for February, 1956, pending

receipt in this office of an adequate final engineering and geologic report, and release to this office of a report of review of contract expenditures by the Contract Administration and Audit Division.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, NRMA
Field Team, Region III

JWT:prl
cc: Chairman, Oper. Comm. (2)
Marshman
Shaw (2)
Hasler
Townsend
Corres. file
Chron.

4-10-56

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

RECEIVED
APR 1 3 1956

224 New Customhouse
Denver 2, Colorado

April 12, 1956

Memorandum

To: John F. Shaw

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium), Contract Idm-8796, Walter Duncan Mining Company, San Juan County, Utah - Progress Report for February, 1956.

In the engineer's report relative to the subject progress report, he states that the Contractor's final report appears adequate for the return of $250.00 withheld in October, 1955. In that respect, the Operator's report which he labels, "Final Narrative Report," is not considered as adequate under the circumstances.

In this case, and in all similar instances, whenever more than one form MF-104, "Operator's Monthly Report and Voucher," is involved, the Operator's narrative report accompanying his last accounting report will not be considered as adequate as a final report unless the narrative report contains a summary of all prior work, summarizing drill logs, a summary of the results of all the work performed, and any other pertinent data which will provide a reviewer with a complete analysis of the project work without his having to refer to information contained in prior reports.

Please contact the Operator and advise him of the foregoing. We will continue to withhold an amount of $250.00 until a more adequate final report is received from the Operator.

W. M. TRAVER

W. M. Traver

JWT:prl
cc: Chairman, Oper. Comm. (2)
Harshman
Hasler
Townsend
Corres. file
Chron.

4-16-56

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

RECEIVED
APR 1 3 1956

224 New Customhouse
Denver 2, Colorado

April 12, 1956

Memorandum

To: John F. Shaw - w/copy of Operator's report.
E. N. Harshman " " "

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium), Contract Idm-8796, Walter Duncan Mining Company, San Juan County, Utah

There follows an excerpt from the Operator's narrative report accompanying form MF-104 for the month of February, 1956:

> "Stage II of the DMEA project was completed in February with the drilling of holes DMEA Nos. 19 and 20. Although a favorable basal Chinle sandstone lense, ranging from 1 to 20 feet thick has been delineated by this drilling, no significant mineralization has thus far been found and we propose that the project be terminated."

Inasmuch as only a portion of the work scheduled for Stage II and none of the work scheduled under Stage III has been completed, it will be necessary that you forward to this office a joint engineering and geologic report containing your recommendations relative to terminating the contract in its present status.

You should advise the Operator that he is not to consider the contract as terminated until he receives official notice from the Government to that effect.

W. M. TRAVER

W. M. Traver

JWT:prl
cc: Chairman, Oper. Comm. (2)) w/copy of Operator's report
Hasler
Townsend
Corres. file
Chron.

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

RECEIVED
MAR 19 1956
Div. of Mineral Technology
BUREAU OF MINES
Denver Metallurgical Station

FINAL NARRATIVE REPORT
DMEA 3582

February, 1956

Stage 2 of the DMEA project was completed in February with the drilling of holes DMEA No's 19 and 20. Although a favorable basal Chinle sandstone lense ranging from one to twenty feet thick has been delineated by this drilling, no significant mineralization has thus far been found and we propose that the project be terminated.

Drill logs for the February holes are attached as part of this report. DMEA No. 19 (see map) was drilled within the area of known basal Chinle sandstone and showed 18' of medium to course grained sand. However, the sandstone contained no pyrites and only traces of carbon. DMEA No. 20 was drilled to the west of the known basal Chinle sandstone, but surprisingly showed 12' of medium to course grained sand. This sand contained no pyrites and only traces of carbon.

The sandstone in both drill holes was typical of most of the sandstone encountered by the DMEA drilling in that it appeared well washed and leached. Although feldspar was noted in some of the cores, most of the interstitial material in the sands was of a clayey or argilaceous nature and was probably decomposed feldspar. The inference here is that the basal Chinle sand lenses were washed and flushed by ground water in this particular area.

Structure contours on the base of the Chinle show no particular scouring or channeling either within the limits of the DMEA project or within the areas of known ore North and East of the project boundary. This relatively uniform contact between the Chinle and the Cutler suggests that the deposition of the basal Chinle sand in this area was probably in a broad shallow basin rather than in a sharply delineated channel.

Post basal Chinle erosion probably accounts for the lenslike nature of the sandstone and the uncomformable contact between the basal sand and the overlying mud stones.

The writer is unable to offer any particular suggestions for future exploration in an area such as this except to say that he would recommend tracing out the basal Chinle sand stone lenses if future drilling were contemplated. Section 2, to the South of the DMEA project appears to be favorably situated for the extension of the lenses, but drill depths are all in excess of 700 feet.

Stages 1 and 2 of this contract required 11,763 feet of plug bit drilling and 727 feet of coring. Although several slightly mineralized zones were encountered, no chemical samples were taken. However, all holes

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

were probed by either the Duncan Babbel unit or the USGS Bareaby unit.

In conclusion, the writer would like to express his appreciation to William Hassler and George Carlyle and other members of the USGS and Bureau of Mines field teams for the expeditious and cooperative manner in which they assisted in the project. He would also like to express his appreciation to the members of the DMEA unit in Denver for their assistance and cooperation.

Charles R Butler

3/26/56

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

RECEIVED
MAR 26 1956

224 New Customhouse
Denver 2, Colorado

March 21, 1956

Mr. Charles R. Butler, Manager
Walter Duncan Mining Company
P. O. Box 1468
Cortez, Colorado

Re: Docket DMEA 3582 (Uranium)
Contract Idm-E796

Dear Mr. Butler:

Thank you for your letter of March 15, 1956, advising that all Stage II work under Contract Idm-E796 was completed as of February 29, 1956, and requesting instructions relative to the disposal of the cuttings and cores from the drill holes.

A Government engineer or geologist will pick up the cuttings and cores from the drill holes at the first opportunity. Therefore, the material must be stored for protection until that time.

Very truly yours,

W. M. TRAVER

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

JWT:prl
cc: Chairman, Oper. Comm. (2)
Harsiman
Shaw (2)
Hasler
Townsend
Corres. file
Chron.

} w/copy of Butler's letter

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

MAR 19 1956
BUREAU OF MINES
Denver, Colorado

March 15, 1956

Mr. W.M. Traver
224 New Customhouse
Denver, Colorado

Re: Docket DMEA 3582 (Uranium)
Contract Idm-E 796

Dear Mr. Traver,

We completed Stage 2 of our DMEA contract in Lisbon Valley on February 29, 1956. The results of Stage 2 were discouaging, and we do not intend to request further DMEA assistance for this project. A final report showing the results of February drilling plus a summary of the entire project wi will be submitted shortly.

In accordance with previous instructions, we have saved cuttings and cores from all our drill holes. What are your wishes in regards to this material?

Very truly yours,

Charles R Butler

Charles R. Butler, Manager
Walter Duncan Mining Company

cc: Wm Hassler

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

DEC 19 1955

224 New Customhouse
Denver 2, Colorado

December 16, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582, (Uranium) Contract Idm-E796, Walter Duncan Mining Company, Paragon, White Rock, Red Rock groups and Patterson Fraction, San Juan County, Utah

Enclosed are two copies of the Operator's Monthly Progress Report, Form MF-104 and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data pertaining to work under the subject contract for the period October, 1955.

E. N. Harshman

E. N. Harshman

Enclosures

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION IV

RECEIVED
DEC 19 1955

Administrative Audit Difference Statement

Date: Dec. 12, 1955
Payee's
Reference: October 1955

Vasco Queen Mining Company
P.O. Box 1453
Cortez, Colorado

Gentlemen:

Upon examination of the above Payee's reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$ 7,670.72
Difference	$
Amount Approved	$ 7,670.72

The reason for the difference was due to:

$ 500.00 withheld pending receipt of contract test.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N.E.Stokes
Audit Section

R-IV-B & F Form No. 4
4-15-52 D

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

RECEIVED
DEC 19 1955

224 New Customhouse
Denver 2, Colorado

November 25, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582, (Uranium) Contract Mm-E796, Walter Duncan Mining Company, Paragon, White Rock, Red Rock groups and Patterson Fraction, San Juan County, Utah. Operator's Monthly Progress Report, for the period October, 1955

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore, we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report, except for the following:

Withhold an amount of $500.00 pending resumption of contract work.

Remarks

Date of Report- - - - - - - - - - - October (November) 8, 1955
Date Received in Field Office- - - - - - - - November 17, 1955
Date Received in Region Office- - - - - - - November 21, 1955

JDC:jy
cc: MF-104 File E796
Sec. Op. Comm. (2)
Shaw (2)
Townsend w/copy engr's. report
Chron.

W. M. Traver

By J. W. Townsend

Enclosures

REGION III

Memorandum

Building 20
Denver Federal Center
Denver 2, Colorado
November 18, 1955

RECEIVED
DEC 19 1955

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: Carl Belser

Subject: DMEA 3582, Contract Idm-E796 (Uranium), Red Rock, White Rock, and Paragon claims, Walter Duncan Mining Company, Secs. 34 and 35, T. 30 S., R. 25 E., Salt Lake Meridian, San Juan County, Utah
Progress report for October 1955

Drilling progress was inspected on November 4, 1955. No one was on the property but the Geological Survey had reported that the company would return later on and complete the drilling. The following holes were drilled in October:

	Hole No.	Footage Plug-bit	Footage Cored	Footage Total	Remarks
					624-640 plug bit
	15	608	32	640	CCC 621
	16	649	36	685	CCC 669
	17	582	30	612	CCC 608
	18	632	36	668	CCC 665
October Total	4	2,471	134	2,605	
Total drilled previously	14	8,020	533	8,553	
Total through October	18	10,491	667	11,158	

The cost of 2,471 feet of plug-bit drilling at $2.86 per foot is $7,067.06 and the cost of 134 feet of core drilling at $4.49 per foot is $601.66, or a total of $7,668.72.

Payment of 75 percent of the amount claimed or $5,751.54 is justified but it is recommended that $250.00 be withheld pending resumption of work or submission of a final report.

Carl Belser

Carl Belser
Mining Engineer

CB:ph
cc 6
Idm-E796
Chron

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED
DEC 19 1955

Month of October 1955 Docket No. DMEA 3582 Contract No. Idm-~~B~~ 796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P.O. Box 1468 Cortez, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	feet	601.66	134	2994.83	667	4.49	1784	8010.16
~~Churn~~ plug bit	feet	7067.06	2471	30004.26	10491	2.86	23716	67827.76
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Sampling	sample	0	0	0	0	5.00	50	250.00
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		7668.72		32999.09				76,088

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

Date Oct. 8, 1955 Operator Walter Duncan Mining Co

Per Charles N Butler Title Manager

REMARKS:

NOTE.—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.

(Instructions on reverse)

(For Government use only) Earl Behan

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
DEC 19 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1955 Docket No. DMEA 3582 Contract No. Idm-E 796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P.O. Box 1468 Cortez, Colorado
Contract Amount, $ 76,088 Government Participation: 75 % Amount, $ 57,066

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling -plug	7067.06	22937.20	30004.26			
~~Bulldozing~~ Core drill-103	601.66	2393.17	2994.83			
Crosscutting						
Drifting						
Sampling	0	0	0			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	7668.72	25330.37	32999.09	7668.72	25330.37	32999.09

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Oct. 8, 1955 Payee Walter Duncan Mining Co.

Per Charles R Butler Title Manager

If a voucher is signed or receipted in the name of a company or corporation, the name of the person writing company or corporate name, as well as the capacity in which he signs, must appear. For example: "John company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 5251.54

Signature RCC
(Authorized Certifying Officer)

Date 12-13-55 Vou. No. DMA 56-47
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. DMA-E 796 in accordance with the terms of the contract.

Signature Carl Belau ($5,751.54) Title Mining Engineer Date 11/18/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature for W. M. Tonnar Title Executive Officer Date NOV 25 1955

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

RECEIVED
DEC 19 1955

November 15, 1955

Narrative Report
October, 1955

Four drill holes, No's DMEA 15, 16, 17 and 18 were completed during October. The locations of these holes are shown on the included map.

All of the October holes are part of Stage 2 drilling.

These holes are in the eastern portion of the project area, and were drilled to test an area which is within 500 feet of known ore and which contains a gray course grained carbonaceous "ore sand" at the base of the Chinle formation. This sand is called the "ore sand" because of its similarity to the ore bearing sandstone in the Continental Uranium Company Mine in the Southwest corner of Section 36.

Logs of the holes are included as part of this report. Hole No's 15 and 16 contained 15 feet and 18 feet respectively of favorable sandstone, but showed only slight mineralization. Both of these cores showed abundant carbonaceous material in the sandstone, but were soft, friable and argillaceous which might indicate ground water leaching.

Hole No's 17 and 18 were apparently west of the sandstone area, and showed neither favorable ore bearing "host rocks" nor mineralization.

Two Stage 2 holes remain to be drilled, and unless these holes are very favorable, the Company will recommend that the project be discontinued.

All holes were gamma ray logged by the Company and by the USGS.

Charles R Butler

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

RECEIVED
DEC 19 1955

Project Lisbon
Drill Hole No. DMEA 15
Collar Elev. 7073
Total Depth 646
Location

Date Oct. 3, 1955
Ore.
Min X
Bar.
Probed by USGS and Duncan

From	To	Rock	Color	Carbon		Remarks
0	236	ss	tan			Wingate
236	475	ms	red			Chinle
475	592	ms	gn			Chinle
592	593	ms cong.	gn	sparce	mos	ms galls
593	605	ms	gn	sp to ab.	mos	
605	605.5	cong.	wh	med		friable, limy
605.5	621	ss	wh	med. to ab.		med. grn, friable,
						limontic carbon trash zones ss
621	624	ms	gn		mos	Cutler?
624	640	ms	choc. bn			Cutler
	Core zone - 592 to 624					
	Hole plugged to 640 to confirm Cutler contact and to					
	facilitate probing.					
	606 to 607 shows slight radioactivity .01e to .04, U_3O_8					

Summary of Log. O.B.S. ss Thick 16 ss Color wh

Sh. green

Under O.B.S.S.

favorable

CPB

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA 16
Collar Elev. 7071.1
Total Depth 685
Location

Date Oct. 15, 1955
Ore.
Min x
Bar.
Probed by USGS and Duncan

From	To	Rock	Color	Carbon		Remarks
0	285	ss	tan			Wingate
285	530	ms	red			Chinle
530	649	ms	gr-gn			Chinle
649	651	ms-ss	gr-gn	sparce	mcs	limy, ms galls
651	652	ms cong.	gr-wh			limy
652	654	ss	gr-wh	ab.		pyritic, fine to med. grn
						carbon trash zones
654	654.5	ms	gn	ab.	mcs	
654.5	656.5	ss	wh	sp.		med to course grn, cong.
656.5	658.5	ss	wh	sp to med.		fine to med grn.
658.5	659	ss	wh	ab.		med to course grn
						"γ" highly radioactive
						carbon in trash zone at
						558.5
659	669	ss	wh	sp to med		med to course grn, friable
669	671.5	slts	gn	sp	mcs	Cutler?
671.5	685	ms	choc. br		mcs	Cutler
	Core zone 649 to 685					

Summary of Log. O.B.S. ss Thick 18 ss Color wh

Sh. favorable Under O.B.S.S.

CRB

WALTER DUNCAN MINING CO

DRILL HOLE LOG

Lisbon Valley
DMEA - 17

Oct. 18, 1955

612

X
Probed by USGS & Duncan

0	227	ss	tan			Wingate
227	530	ms	red			Chinle
530	582	ms	gr-gn			Chinle
582	584	slts	gr-gn	med		
584	584.5	ms cong.	gn	med		large ms galls
584.5	605	ms	gn	sparce		
605	607.5	slts	gr	sparce		very hard, limy
607.5	612	ms	choc. br		mcs	Cutler

Core Zone 582 - 612'

Thick 0

Unfavorable

CRB

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. ~~DMEA 18~~
Collar Elev.
Total Depth 668
Location

Date Oct. 7, 1955
Ore.
Min
Bar. X
~~Probed by USGS and~~ Duncan

From	To	Rock	Color	Carbon		Remarks
0	275	ss	tan			Wingate
275	435	ms	red			Chinle
435	632	ms	gr-gn			Chinle
632	641.5	slts	gn-gr	med to ab	mcs	
641.5	655	ms	gr-gn	sp	mcs	
655	656	ss	wh-gr			med to fine grn, limy,
656	658.5	ss	wh-gr			hard med to fine grn, l
						limy, some small ms galls
658.5	660.5	slts	gr-gn	med to ab	mcs	
660.5	662	ss	wh			med grn, some lim. stain
662	664.5	slts	gr-gn	med		some pyrite
664.5	665	ss	wh			limy, limonite, course grn
665	668	ms	choc. brn		mcs	Cutler
	Core zone	632 to 668				

Summary of Log. O.B.S. ss Thick 1.5 ss Color wh

Sh. unfavorable Under O.B.S.S.

CRB

12/19/55 gla

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

RECEIVED
DEC 19 1955

224 New Customhouse
Denver 2, Colorado

December 14, 1955

Mr. Charles R. Butler
Walter Duncan Mining Company
P. O. Box 1468
Cortez, Colorado

Re: Docket DMEA 3582 (Uranium)
Contract Idm-E796

Dear Mr. Butler:

In your letter to Mr. William Hasler of October 17, 1955, you advised that you are moving off the project area involved in Contract Idm-E796 and will complete the remaining holes in the Spring. You further advised that you expect to finish the remaining holes prior to the termination date of the Contract and do not think it necessary to request an extension of that date.

A suspension of operations under a DMEA contract which involves an extension of the period for completion of the project work would necessitate an amendment to the contract to authorize the recess of operations, thereby justifying the extension of the period for completion of the work.

Therefore, if there is any possibility that you will not be able to complete the work by the stipulated date, you should, to protect yourself from default under the terms of the Contract, request the Government's approval for the suspension of operations. In the event you do request the foregoing, please advise the date operations were suspended and the date on or before which you expect to resume operations.

Very truly yours,

for J. W. Townsend
E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

JWT:pri
cc: Chairman, Oper. Comm. (2)
Harshman
Shaw
Hasler
Townsend
Corres. file
Gen.

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

RECEIVED
DEC 19 1955

224 New Customhouse
Denver 2, Colorado

December 14, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium), Contract Idm-E796, Walter Duncan Mining Company, San Juan County, Utah

Enclosed for your information are two copies of a memorandum from Carl Belser, Mining Engineer, U. S. Bureau of Mines, dated December 9, 1955, wherein he advises that no work was performed during the month of November, 1955.

Also enclosed are two copies of a letter from this office to the Operator advising him that an amendment would be necessary to authorize a recess of operations.

for E. N. Harshman
Acting Executive Officer

Enclosures

RECEIVED
DEC 10 1955

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
December 9, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: Carl Belser

Subject: DMEA 3582, Contract Idm-E796 (Uranium), Red Rock, White Rock, and Paragon claims, Walter Duncan Mining Company, Secs. 34 and 35, T. 30 S., R. 25 E., Salt Lake meridian, San Juan County, Utah - Progress report for November, 1955.

Drilling progress was inspected on December 6, 1955. No one was at the property. The snow around the cabins was undisturbed, and no new cores had been added to the core storage. A caretaker, probably the owner of some of the claims, had circled the camp in a jeep earlier in the day.

Apparently no work was done in November.

Carl Belser
Carl Belser
Mining Engineer

CB/mw

cc: 6
Idm-E796
Chron.

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

Rec'd. 12-1-55

Denver Federal Center
Denver, Colorado

November 23, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations

Enclosed are four copies of gamma-ray log interpretations on the following DMEA exploration projects:

DMEA Docket

2771 - Walter Gramlich
3297 - Continental Uranium Company
3475 - Amuranium Corporation
3514 - Climax Uranium Company
3555 - Four Corners Exploration - Bachelor group
3579 - Bula Belle Uranium, Inc.
3582 - Walter Duncan Mining Co.
3632 - Colamer Corporation
3649 - Simpson Uranium Co.
3660 - Mid Continent Uranium Corp.
3675 - Great Frontier Uranium Company
3730 - Vaughey & Vaughey, Ouray Ventures
3939 - Westvaco Mineral Products

W. M. Traver

By Townsend

Enclosures

Walter Duncan Mining Co.
GAMMA-RAY LOG INTERPRETATION Red Rock Claims - Lisbon Valley
DMEA Docket No. 3582

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-5	645.0	None	5.0-632.6	611.4-613.5	2.1	260			<0.005	
				613.9-615.6	1.7	680			0.015	
DMEA-14	672.0	None	4.8-652.4	Barren						
DMEA-15	640.0	None	4.0-620.0	600.2-601.2	1.0	240			<0.005	
				603.7-604.4	0.7	320			<0.010	
				608.1-609.0	0.9	1,200			0.029	
DMEA-16	668.0	None	5.0-224.3	Barren						
DMEA-17	676.0	None	0.0-670.1	638.7-639.7	1.0	600			0.017	
				641.5-643.0	1.5	210			<0.005	
				645.4-646.4	1.0	280			<0.010	
				648.2-649.1	0.9	300			<0.010	
				651.2-654.6	3.4	360			<0.010	
DMEA-18	613.0	None	3.6-232.5	Barren						

* From top to bottom depths

Walter Duncan Mining Co.
Red Rock Claims - Lisbon Valley
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-5	645.0	None	5.0-632.6	611.4-613.5	2.1	260			<0.005	
				613.9-615.6	1.7	680			0.015	
DMEA-14	672.0	None	4.8-652.4	Barren						
DMEA-15	640.0	None	4.0-620.0	600.2-601.2	1.0	240			<0.005	
				603.7-604.4	0.7	320			<0.010	
				608.1-609.0	0.9	1,200			0.029	
DMEA-16	668.0	None	5.0-224.3	Barren						
DMEA-17	676.0	None	0.0-670.1	638.7-639.7	1.0	600			0.017	
				641.5-643.0	1.5	210			<0.005	
				645.4-646.4	1.0	280			<0.010	
				648.2-649.1	0.9	300			<0.010	
				651.2-654.6	3.4	360			<0.010	
DMEA-18	613.0	None	3.6-232.5	Barren						

* From top to bottom depths

Walter Duncan Mining Co.
Red Rock Claims - Lisbon Valley
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-5	645.0	None	5.0-632.6	611.4-613.5	2.1	260			<0.005	
				613.9-615.6	1.7	680			0.015	
DMEA-14	672.0	None	4.8-652.4	Barren						
DMEA-15	640.0	None	4.0-620.0	600.2-601.2	1.0	240			<0.005	
				603.7-604.4	0.7	320			<0.010	
				608.1-609.0	0.9	1,200			0.029	
DMEA-16	668.0	None	5.0-224.3	Barren						
DMEA-17	676.0	None	0.0-670.1	638.7-639.7	1.0	600			0.017	
				641.5-643.0	1.5	210			<0.005	
				645.4-646.4	1.0	280			<0.010	
				648.2-649.1	0.9	300			<0.010	
				651.2-654.6	3.4	360			<0.010	
DMEA-18	613.0	None	3.6-232.5	Barren						

* From top to bottom depths

11-7-55 [illegible]

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

RECEIVED
NOV - 7 1955

224 New Customhouse
Denver 2, Colorado

November 3, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582 (Uranium) Contract Idm-E796, Walter Duncan Mining Company, Paragon, White Rock and Red Rock Groups, San Juan County, Utah

Enclosed are two copies of the Operator's Monthly Progress Report, Form MF-104 and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data pertaining to work under the subject contract for the period September, 1955.

W. M. Traver

By J. W. Townsend
J. W. Townsend

Enclosures

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

RECEIVED
NOV - 7 1955

224 New Customhouse
Denver 2, Colorado

October 26, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582, (Uranium) Contract Idm-E796, Walter Duncan Mining Company, Paragon, White Rock and Red Rock Groups, San Juan County, Utah - Operator's Monthly Progress Report, for the period September, 1955

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore, we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks

Date of Report- - - - - - - - - - - - - - - - - - October 18, 1955
Date Received in Field Office- - - - - - - - - October 20, 1955
Date Received in Region Office- - - - - - - - - October 25, 1955

for W. M. Traver

Enclosures
JDC:jy
cc: MF-104 File E796
Sec. Op. Comm. (2)
Shaw (2)
Chron.

DMEA
Date Rec'd
OCT 25 1955
BUREAU OF MINES
Denver, Colorado

Building 20
Denver Federal Center
Denver 2, Colorado
October 21, 1955

REGION III

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: Carl Belser

Subject: DMEA 3582, Contract Ian-E796 (Uranium), Red Rock, White Rock, and Paragon claims, Walter Duncan Mining Company, Secs. 34 and 35, T. 30 S., R. 25 E., Salt Lake Meridian, San Juan County, Utah
Progress report for September 1955

Drilling progress was inspected on October 4, 1955. The following holes were drilled in September:

	Hole No.	Footage Plug-Bit	Footage Cored	Footage Total	Remarks
	9	530	40	570	C.C.C. 568 U.F.
	10	705	39	744	C.C.C. 735 S.F.
	11	442	40	482	C.C.C. 471 U.F.
	12	473	36	509	C.C.C. 497 U.F.
	13	547	40	587	C.C.C. 579 U.F.
	14	632	40	672	C.C.C. 669 S.F.
Total	6	3,329	235	3,564	
Total previous	8	4,691	298	4,989	
Total through Sept.	14	8,020	533	8,553	

On October 4 the applicant had drilled 620 feet on hole No. 15. The Moss Back looked good but was barren.

The cost of 3,329 feet of plug-bit drilling at $2.86 a foot is $9,520.94 and the cost of 235 feet of core drilling at $4.49 is $1,055.15, or a total of $10,576.09.

Payment of 75 percent of the amount claimed or $7,932.07 is recommended.

Carl Belser
Carl Belser
Mining Engineer

CB:ph
cc 6

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

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OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 195 5 Docket No. DMEA 3582 Contract No. Idm-E796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P.O. Box 1468, Cortez, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	feet	1055.15	235	2393.17	533	4.49	1784	8010.16
~~Core~~ plug bit	feet	9520.94	3329	22937.20	8020	2.86	23716	67827.76
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Sampling	sample	0	0	0	0	5.00	50	250.00
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		10576.09		25330.37				76088

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

Date 10/18/55 Operator Walter Duncan Mining Co.

Per Charles P. Butler Title Manager

REMARKS: Figures are adjusted to correct $0.20 error in August report. Core drilling costs were listed too low.

NOTE.—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.

(Instructions on reverse)

(For Government use only) Carl Belen

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED
NOV - 7 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1955 Docket No. DMEA 3582 Contract No. Idm-E 796
Operator's Name Walter Duncan Mining Co. Minerals Uranium
Address P.O. Box 1468 Cortez, Colorado
Contract Amount, $ 76,088 Government Participation: 75% Amount, $ 57,066

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling -plug	9520.94	13416.26	22937.20			
~~Bulldozing~~ Core drilling	1055.15	1338.02	2393.17			
Crosscutting						
Drifting						
Sampling	0	0	0			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	10576.09	14754.28	25330.37	10576.09	14754.28	25330.37

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 10/18/55 *Payee Walter Duncan Mining Co.

Per Charles R. Barber Title Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 7,932.07

Signature [illegible]
(Authorized Certifying Officer)

Date 10/31/55 Vou. No. DMA-56-40
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. DMA-1796 in accordance with the terms of the contract.

Signature [illegible] (7,932.07) Title Mining Engineer Date 10/21/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] for [illegible] Title Executive Officer Date OCT 6 1955

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

October 18, 1955

Narrative Report
September, 1955

Six drill holes, No's DMTA 9, 10, 11, 12, 13 and 14 were completed during the month of September. The locations of these holes are shown on the included map.

Stage 1 drilling was completed during September, and seven holes for Stage 2 were authorized to explore an area of known course grained "ore sand" at the eastern end of the project block. Hole 14 was a Stage 2 hole.

Drill holes No's 9, 11, 12 and 13 failed to show sandstone at the base of the Chinle. As a result of these unfavorable cores, no more drilling is anticipated in the middle and western portions of the project area.

Drill holes 10 and 14 showed 10' and 11' respectively of the course grained carbon bearing gray sandstone that is believed to be a favorable mineral host rock, but neither hole showed uranium.

The enclosed map shows the results of recent drilling by Apache and Continental. This data shows that zones of mineralization and ore are present immediately north and east of the east end of the project. The remaining Stage 2 holes will be drilled in this area.

All holes were gamma ray logged by the Company and by the USGS.

Charles R Butler

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA-9
Collar Elev.
Total Depth 570
Location

Date Sept. 1, 1955
Ore
Min
Mar X
Probed by Duncan

From	To	Rock	Color	Carbon	Structure	Remarks
0	186	ss	tan			Wingate
186	425	ms	red			Chinle
425	530	ms	gn			Chinle
530	545	ms	gn			
545	552	ms	gr-gn		mcs	gn ms galls
552	556	ms	gr-gn	sp	mcs	
556	560.5	slts	gn		mcs	
560.5	565	ss-ms	gn-gr	med to ab.		limy, some feldspar
						some pyrite
565	565.5	ss	wh-gr	sp		limy, fn grn, feldspar
565.5	567	ms	gn			
567	568	slts	gr-gn			Some feldspar
568	570	ms	choc. bn		mcs	Cutler

Core Zone 530-570

Summary of Log: Cross Thick 0 Ss Solid

Sh. Water Content

Unfavorable

CRB

[illegible] CO.

DRILL HOLE LOG

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Project: Lisbon Valley
Drill Hole No.: DMEA-10
Collar Elev.:
Total Depth: 745
Location:

Date: Sept. 12, 1955
Ore:
Min.:
Bar.: X

Probed by USGS to 725.5
Probed by Duncan to bottom

From	To	Rock	Color	Carbon		Remarks
0	348	ss	tan			Wingate
348	552	ms	red			Chinle
552	705	ms	gn			Chinle
705	706.5	ms cong	gn	ab		Some pyrite
706.5	708	slts	gn	med		Carbon parting at 708
708	709	ms cong.	gn	med		
709	728.8	ss & slts	gr-gn	med	mcs	fine grn
728.8	733.5	ms cong.	gn	med		gn ms galls
533.5	735					No core recovery
735	744	ss	wh	none		Fine to course grn
						Some feldsp. pebbles.
						Quartzitic in places
744	754	ms-slts	choc. brn			Cutler

Core Zone 705 - 744

Hole plugged from 744 to 754 to confirm Chinle-Cutler contact.

Summary of Log: Oxid ss Thick 10' Ab Color

Min. Under Oxidation

Semi-favorable

CRB

[illegible]

DRILL HOLE LOG

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NOV - 7 1956

Project Lisbon Valley
Drill Hole No. DMEA-11
Collar Elev.
Total Depth 482
LOCATION

Date Sept. 16, 1955
Ore
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon		Remarks
0	92	ss	tan			Wingate
92	315	ms	red			Chinle
315	430	ms	gn			Chinle
430	431	ms cong	gn,gr	ab.		ab. pyrite, ms galls
431	442	ms	gn		mcs	
442	443	ss	wh	sp	mcs	fn to med grn
443	448	ms	gn		mcs	
448	451	ms cong	gn-gr	med		some large ms galls
451	453	ms	gn	med		
453	458	ss	wh,gn	ab.	mcs	limy, fn grn
458	459	ss	wh,gn	ab.	mcs	trashy, gr ms galls
459	460	ms	gn	ab.	mcs	
460	461	ms cong	gn	ab.	mcs	limy, mud galls
461	462	ss	wh	med		
462	467.5	ss	wh-gn	med	mcs	clean med-fn grn
467.5	470	ms cong	gn,gr	ab.		pyrite, limy
470	471	slts	gn	ab.		pyrite
471	476.5	slts	wh		mcs	Cutler?
476.5	482	ms	choc. brn		mcs	Cutler
Core Zone 430 -482						

Summary of Log. OBS _____ Shfels 0 _____ JS Color _____

Sh. _____ Under Obs. _____

Unfavorable

CRB

[illegible] MINING CO.

DRILL HOLE LOG

RECEIVED
NOV - 7 1955

Project Lisbon Valley
Drill Hole No. DMEA-12
Collar Elev.
Total Depth 509
LOCATION

Date ~~Sept. 20, 1955~~
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon		Remarks
0	105	ss	tan			Wingate
105	370	ms	red			Chinle
370	473	ms	gn			Chinle
473	485.5	ms	gn	med	mcs	
485.5	495.5	ss-ms cong.	gr-gn	med		limy, large ms galls
495.5	497	ms cong	gr-gn	med		limy, pyrite
497	499.5	ms	red, purple			Cutler?
499.5	509	ms	choc. brn		mcs	Cutler-grn ms
						inclusions
Core Zone 473 - 509						

Summary of log. OXES Thick 0 SS Color

Unfavorable Under [illegible]

CRB

MARTIN MARIETTA CORP.

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA-13
Collar Elev.
Total Depth 587
LOCATION

Date Sept. 21, 1955
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon		Remarks
0	198	ss	tan			Wingate
198	440	ms	red			Chinle
440	547	ms	gn			Chinle
547	569	ms	gn	sp-med	mcs	Carbon increasing at base
569	577	ms cong	gr-gn	med-ab	mcs	limy, pyritic
						some feldsp. pebbles in lower section, Carbon trash zone 572.5
577	579	ss	gr	med	mcs	vf grn. limy, mud galls
						carbon trash zone 578.5
579	580	ms	~~choc-brn~~ gn		mcs	Cutler?
580	587	ms	choc. brn		mcs	Cutler
Core Zone 547 - 587						

Summary of Log. OBMS _____ Thick 0 _____ SS Color _____

Sh. _____ Under O.B.M.S.

Unfavorable

CRB

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMEA-14
Collar Elev.
Total Depth 672
LOCATION

Date Sept. 30, 1955
Ore.
Min.
Bar. X
Probed by USGS & Duncan

From	To	Rock	Color	Carbon		Remarks
0	15	ss	red			Kayenta
15	275	ss	tan			Wingate
275	545	ms	red			Chinle
545	632	ms	gn			Chinle
632	652	ms	gn	ab		
652	663	ss	wh-gr	ab	mcs	pyritic, med to course
						grn feldspar pebbles,
						trashy zones. Friable
663	664	slts	gr	sp	mcs	pyritic
664	668	ms	gr-gn	sp	mcs	
668	669	ss	wh			limy, feldspar in lower sec.
669	670	ms	red,gn		mcs	Cutler?
670	672	ms	choc.brn		mcs	gn ms inclusions
						Cutler
Core Zone 632 - 672						

Summary of Log. OBSS ss Thick 11 SS Color

Sh. Under O.B.S.S.

Semi- favorable

CRB

UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVERY

rec'd. 10-31-55

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DENVER FEDERAL CENTER
DENVER, COLORADO

October 25, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations

Enclosed are four copies of gamma-ray log interpretations on the following DMEA exploration projects:

DMEA Docket

3297	Continental Uranium Co.
3514	Climax Uranium Company
3555	Four Corners Exploration Co.
3582	Walter Duncan Mining Company
3614	Western Oil Fields - Binder group
3628	Simpson Mining Company
3660	Mid-Continent Uranium

/W. M. Traver/

W. M. Traver

Enclosures

COPY

Copy to USGS

Walter Duncan Mining Company
3 Step Mesa - Red Rock Claims
Lisbon Valley
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-12	590.0	None	0.0	499.2								
DMEA-13	587.0	None	0.0	577.0								

* From top to bottom depths

Walter Duncan Mining Company
3 Step Mesa - Red Rock Claims
Lisbon Valley
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-12	590.0	None	0.0	499.2								
DMEA-13	587.0	None	0.0	577.0								

* From top to bottom depths

Walter Duncan Mining Company
3 Step Mesa - Red Rock Claims
Lisbon Valley
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-12	590.0	None	0.0	499.2								
DMEA-13	587.0	None	0.0	577.0								

* From top to bottom depths

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 10-31

REFERRED TO:

1. 700
2. ~~Mr. Ellis~~
3. ~~Mr. Mecklenburg~~
4. Contract file

FOR:

..... Action	..... Recommendation
..... Approval	..... Record
..... Comment	of .....
..... Conference	..... Referring
..... Consideration	to.....
..... Filing	..... Reply for signa-
..... Instructions	ture of .....
..... Investigation	..... Rewriting
..... Initials	..... Signature
..... Mailing	..... Suggestions
..... Previous correspondence	..... Your information

REMARKS: .....

Check (X) before the items needing attention.

Initials of sender.

GPO 16—63815-1

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

RECEIVED
OCT 27 1955

224 New Customhouse
Denver 2, Colorado

October 25, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium), Contract Idm-8796, J. Walter Duncan, Jr., d/b/a Walter Duncan Mining Company, (Red Rocks et al. claims), San Juan County, Utah

Enclosed for your records are four copies of DMEA Field Team, Region III, approval of a portion of the drilling to be performed under Stage II of the contract.

Also enclosed are four sets of data relevant to the work approval.

W. M. Traver

W. M. Traver

Enclosures

WMT:gri
cc: Christensen
Harriman
Shaw (2)
Shaler
Townsend
Assoc. file
Geores. file
Chron.

w/copy of work approval and supporting data

RECEIVED
OCT 27 1955

[illegible] Bar Construction
Denver 2, Colorado

October 21, 1955

Mr. J. Walter Duncan, Jr.
d/b/a Walter Duncan Mining Company
P. O. Box 1368
Gorham, Colorado

Attention: Mr. Charles M. Butler, Manager

Re: Project [illegible] (Duncan),
Contract [illegible]

Dear Sir:

Consistent with contract stipulations, and confirming verbal approval of September 19, 1955, you are hereby authorized to drill seven drill holes, Nos. 13 through 19, inclusive, under Stage II of the Contract at the locations shown on the attached map which is made a part of this work approval.

Nothing in this work approval shall be construed to increase the estimated total cost of the project, the amount of the Government's subscription, nor the agreed unit cost of any item of work.

Very truly yours,

W. M. Shaver
W. M. Shaver

E. M. Hawkins
E. M. Hawkins

Enclosure:
[illegible] map

DMA FIELD TEAM, REGION III

cc: Contractor
Contract, Spec. Serv. (4)
Hawkins
Hand (2)
Shaver
Amend. File
Terminal
Spec. File
Chron.

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

DMEA
Date Rec'd. RECEIVED
SEP 19 1955 OCT 28 1955

BUREAU OF MINES
Denver, Colorado

Mr. W.M. Traver
Executive Officer, DMEA
224 New Customhouse
Denver 2, Colorado

Re: DMEA 3582 (Uranium)
Contract Adm-E 991

Dear Mr. Traver,

We intend to complete our Stage 1 drilling by Sept. 23, 1955. The two holes remaining in Stage 1 are at the western end of the Project Block.

Our evaluation of results to date indicates that additional drilling should be concentrated at the eastern end of the project near known ore and favorable host rock occurrences.

The August Narrative includes a map showing all data to date in the area covering and adjoining the project. This map shows several ore and mineralized holes to the east and north of the project, and also shows the presence of favorable sandstone host rock within and to the north, east and south of the project area. The following list shows detailed data on some of the holes that would influence the spotting of additional holes.

Hole No.	Thickness Ore sand	Assay Data Interval	eU_3O_8	U_3O_8	Remarks
BI-6	6.0				
DMEA-1	10.0	682-682.4	.05		
D-C-2	11.0				
D-C-1	20.0				
DMEA-10	6.0				Sept. completion
DMEA-4A	0	644.7-645.7	-.05		
DMEA-3	0	576.0-577.7	.05		
D-10	2.5	525 -527.5	.02-.15		
D-11	7.5	585-586.5	.02-.11		
D-8	13.0	564-567.5	.03-.90	.03-.40	
D-16	16.0	6'	.20-1.00	.20-1.00	will average .50
D-13	2.0	2'	?	?	strong min.
D-18	?	2'	.20	.20	

On the basis of this data, I hereby request authorization to commence Stage 2 drilling. The proposed locations for the initial Stage 2 holes are as follows:

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

Hole No.	Coordinates East	North	Estimated Depth
DMEA-14	137780	59920	660
DMEA-15	137370	60165	635
DMEA-16	137270	59850	700
DMEA-17	136980	60400	585
DMEA-18	136930	60125	650
DMEA-19	136880	59860	715
DMEA-20	136550	60870	560

Inasmuch as the August Narrative includes a map showing all the holes discussed here and also the locations of the proposed Stage 2 holes, I have not included additional maps with this letter. I am mailing a copy of this letter plus a copy of the August Narrative to William Hasler at Grand Junction to expedite confirmation of the Stage 2 work.

Very truly yours,

Charles R Butler

Charles R. Butler, Manager
Walter Duncan Mining Company

cc: Wm Hasler

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. BOX 360
GRAND JUNCTION, COLORADO

October 10, 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: J. William Hasler and M. H. Salsbury

Subject: DMEA 3582 (Uranium), Walter Duncan Mining Company, contract Idm-E 796. Request for stage II drilling.

RECEIVED
OCT 27 1955

The applicant has completed stage I drilling on the Red Rock, White Rock, and Paragon claims in San Juan County, Utah. The results of stage I drilling are not too encouraging; however, the holes drilled on the Red Rock 4 and 6 claims and the Paragon 5, 7, and 8 claims penetrated varying thicknesses of ore-bearing sands and also showed some mineralization. The applicant discussed these results with the Grand Junction office and expressed the desire to concentrate stage II drilling on these claims on which the ore-bearing sandstone is thicker, or where mineralization has been discovered.

Ore bodies of considerable size have been discovered by the Continental Uranium Company and the Apache Uranium Company adjacent to the southeast property line of the Duncan Mining Company. The enclosed map, (fig. 1) shows a concentration of holes that lie in the southwest corner of sec. 36. These holes represent the westernmost portion of the continental ore body and represent an estimated 20,000 tons. The tonnage for the entire Continental ore body is estimated to reach from 75,000 to 100,000 tons of ore. Recent drilling by the Apache Uranium Company has discovered ore

within 300 feet [illegible] the project boundary. Diamond [illegible]rill holes D-16, D-18, and D-13, drilled by Apache discovered ore-grade material 3.1 foot thick, averaging 0.3 percent eU_3O_8.

The results of stage I drilling have been reviewed and it is concluded that stage II drilling should be concentrated in the southeastern portion of the Walter Duncan property in order to take advantage of possible occurrence of ore that may extend into the property from adjacent ground. It is recommended that 7 diamond-drill holes under stage II be drilled as shown on the accompanying map. Verbal approval was given the applicant on September 19, 1955, to drill stage II holes 14, 15, 16, 17, 18, 19, and 20, by the Regional Field Team.

Enclosed are the necessary maps for execution of the request of stage II drilling.

W. D. Haynes
For J. William Hasler,
Geologist, USGS

M. H. Salsbury
M. H. Salsbury
Engineer, USBM

JWH/mlr

Enclosures

~~Mr. Ellis~~
Mr. Murphy
Contract file

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

224 New Customhouse
Denver 2, Colorado

October 11, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations for:
DMEA 2771, Contract Idm-8577, Grenlich Exploration Company
DMEA 3297, Contract Idm-8800, Continental Uranium, Inc.
DMEA 3449, Contract Idm-8745, United States Uranium Company
DMEA 3475, Contract Idm-8760, Amuranium Corporation
DMEA 3555, Contract Idm-8791, W. A. Greer (Four Corners Exploration Company)
DMEA 3619, Contract Idm-8812, Simpson et al Mining Company
DMEA-3579, Contract Idm-8794, Eula Belle Uranium, Inc.
DMEA 3582, Contract Idm-8796, Walter Duncan Mining Company
~~DMEA 3511, Contract Idm-8823, Gilmer Uranium Company~~
DMEA 3614, Contract Idm-8795, Western Oil Fields, Inc.

1 set to USGS 10/19/55

Enclosed are four copies of gamma-ray log interpretations for holes drilled on the subject properties with transmittal memorandum by E. N. Harstman, Region III DMEA Field Team member.

W. M. Traver

By J. W. Townsend

JCsb

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

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

October 6, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: Gamma-ray log interpretation data

Enclosed are eight copies each of gamma-ray log interpretations for the following projects:

DMEA 2771 - Walter Gramlich
" 3297 - Continental Uranium Corp., Big Indian area
" 3449 - U. S. Uranium, Red Hill claim
" 3475 - Amuranium Corporation
" 3555 - Four Corners Exploration Co., Pull Canyon
" 3571 - Simpson Mining Company, Rajah claims
" 3579 - Herome Craig, Ula Bella claims
" 3582 - Walter Duncan Mining Co.
" 3514 - Climax Uranium, Beaver Mesa
" 3614 - Western Oil Fields, Pinder group

Four copies of each log interpretation should be forwarded to the Chairman of the Operating Committee for information.

/s/ E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (10)

c
o
p
y

Walter Duncan Mining Co.
Lisbon Valley Area, Utah

GAMMA-RAY LOG INTERPRETATION

DMEA Docket No. 3582

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-4	678.0	None	0.4-111.9	None						Hole Completed at 11 P.M. - caved by A.M next day
DMEA-4A	677.0	None	1.0-665.4	None						
DEMA-6	587.0	None	0.0-577.0	None						
DMEA-7	538.0	None	1.0-529.2	None						
DMEA-8	509.0	None	309.4-509.4	481.9-482.8	0.9	240			<0.005	
				491.7-493.0	1.3	240			<0.005	
				494.2-495.4	1.2	360			<0.010	
				496.9-499.3	2.4	300			0.005	
				500.2-501.0	0.8	1600			0.045	
DMEA-9	570.0	None	5.0-565.0							
DMEA-10	745.0	None	0.8-725.5							
DMEA-11	492.0	None	4.9-480.7	266.5-268.4	1.9	240			<0.005	
				268.4-270.0	0.7	340			<0.010	

* From top to bottom depths

Walter Duncan Mining Co.
Lisbon Valley Area, Utah

GAMMA-RAY LOG INTERPRETATION

DMEA Docket No. 3582

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-4	678.0	None	0.4-111.9	None						Hole Completed at 11 P.M. - caved by A.M next day
DMEA-4A	677.0	None	1.0-665.4	None						
DEMA-6	587.0	None	0.0-577.0	None						
DMEA-7	538.0	None	1.0-529.2	None						
DMEA-8	509.0	None	309.4-509.4	481.9-482.8	0.9	240			<0.005	
				491.7-493.0	1.3	240			<0.005	
				494.2-495.4	1.2	360			<0.010	
				496.9-499.3	2.4	300			0.005	
				500.2-501.0	0.8	1600			0.045	
DMEA-9	570.0	None	5.0-565.0							
DMEA-10	745.0	None	0.8-725.5							
DMEA-11	492.0	None	4.9-480.7	266.5-268.4	1.9	240			<0.005	
				268.4-270.0	0.7	340			<0.010	

* From top to bottom depths

Walter Duncan Mining Co.
Lisbon Valley Area, Utah
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-4	678.0	None	0.4-111.9	None						Hole Completed at 11 P.M. - caved by A.M next day
DMEA-4A	677.0	None	1.0-665.4	None						
DEMA-6	587.0	None	0.0-577.0	None						
DMEA-7	538.0	None	1.0-529.2	None						
DMEA-8	509.0	None	309.4-509.4	481.9-482.8	0.9	240			<0.005	
				491.7-493.0	1.3	240			<0.005	
				494.2-495.4	1.2	360			<0.010	
				496.9-499.3	2.4	300			0.005	
				500.2-501.0	0.8	1600			0.045	
DMEA-9	570.0	None	5.0-565.0							
DMEA-10	745.0	None	0.8-725.5							
DMEA-11	492.0	None	4.9-480.7	266.5-268.4	1.9	240			<0.005	
				268.4-270.0	0.7	340			<0.010	

* From top to bottom depths

~~Mr. Murphy~~
Contract file
3582

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

[illegible] New Customhouse
Denver, Colorado

August [illegible], 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations
Docket [illegible], Contract Idm-[illegible], Cumulich Exploration Company, Utah
Docket [illegible], Contract Idm-[illegible], Cameron Uranium Mines of America, Inc., Colorado
Docket [illegible], Contract Idm-[illegible], Four Corners Exploration Company, New Mexico
Docket [illegible], Contract Idm-[illegible], Flintop Mining Company, New Mexico
Docket [illegible], Contract Idm-[illegible], Big Radium Uranium Corporation, Utah
Docket [illegible], Contract Idm-[illegible], Centennial Uranium, Inc., Utah
Docket [illegible], Contract Idm-[illegible], Mid-Continent Uranium Corporation, Utah
Docket [illegible], Contract Idm-[illegible], United States Uranium Company, Colorado
Docket [illegible], Contract Idm-[illegible], Accuranium Corporation, Utah
Docket [illegible], Contract Idm-[illegible], Radium Hill Uranium, Inc., Colorado
Docket [illegible], Contract Idm-[illegible], The Golden Cycle Corporation, Colorado
Docket [illegible], Contract Idm-[illegible], Rule Rulle Uranium, Inc., Colorado
1 set to USGS Docket [illegible], Contract Idm-[illegible], Walker Duncan Mining Company, Utah
Docket [illegible], Contract Idm-[illegible], Uranium Prospectors Company, Ltd., Colorado

Enclosed are four copies of gamma-ray log interpretations for holes drilled on the subject properties, and transmitted by E. M. [illegible], Region III DMEA Field Team member.

/s/ W. M. Traver

W. M. Traver

Enclosures

Shaw (2)
Hanley
Harshman
Townsend Chron

copy

(Sw[illegible]d)

Rec'd. Aug 19, 1955

Bureau of Mines
Denver, Colorado

Received
Aug 29 1955

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

Denver Federal Center
Denver, Colorado

August 19, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: Gamma-ray log interpretations

Enclosed are 9 copies of gamma-ray log interpretations on the following DMEA exploration projects:

Project	Company
2771	Grumlich Exploration Company
3084	Commerce Uranium Company, Tennant Group
3151	Four Corners Exploration Company, Flat Top claims Nos. 4 and 5
3190	Richard Vopat, et al, Flat Top Nos. 1, 2, and 3
3266	Big Indian Uranium Corporation
3475	Amuranium Corporation
3579	Jerome Craig
3585	Golden Cycle Corporation
3650	Native Hill Uranium Company
3682	Walter Duncan Mining Company
3760	Mid-Continent Uranium Company
3849	U. S. Uranium Company
3820	Uranium Prospectors
3897	Continental Uranium Company

I have discussed with Barlar the need for more frequent transmittal of these data, and in the future log interpretations will be transmitted about once each month.

Four copies each of the enclosures should be transmitted to the Chairman of the Operating Committee for information purposes.

/s/ E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures

E. N. Harshman:sch

copy

Walter Duncan Mining Co.
Red Rock Claim, Lisbon Valley, Utah
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-1	697.0	None	9.2-213.8	None						
DMEA-3	603.0	None	6.2-590.8	575.3-576.2	0.9	600			0.018	
				576.2-577.2	1.0	1300			0.032	

* From top to bottom depths

Walter Duncan Mining Co.
Red Rock Claim, Lisbon Valley, Utah
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From*	Depth Logged To	Anomaly Detected From*	Anomaly Detected To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-1	697.0	None	9.2	213.8	None							
DMEA-3	603.0	None	6.2	570.8	575.3	576.2	0.9	600			0.018	
					576.2	577.2	1.0	1300			0.032	

* From top to bottom depths

Walter Duncan Mining Co.
Red Rock Claim, Lisbon Valley, Utah
DMEA Docket No. 3582

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
DMEA-1	697.0	None	9.2-213.8	None						
DMEA-3	603.0	None	6.2-590.8	575.3-576.2	0.9	600			0.018	
				576.2-577.2	1.0	1300			0.032	

* From top to bottom depths

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

RECEIVED
OCT 6 - 1955

October 4, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582 (Uranium), Contract Idm-K796, Walter Duncan Mining Company, White Rock, Red Rock, Paragon, and Patterson Fraction Claims, San Juan County , Utah

Enclosed are two copies of the Operator's Monthly Progress Report, Form MF-104 and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data pertaining to work under the subject contract for the period August, 1955.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
OCT 6 - 1955

224 New Customhouse
Denver 2, Colorado

September 26, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582, (Uranium) Contract Idm-E796, Walter Duncan Mining Company, White Rock, Red Rock, Paragon, and Patterson Fraction Claims, San Juan County, Utah. Operator's Monthly Progress Report, for the period August, 1955.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore, we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks

Date of Report- - - - - - - - - - - - - - - - - - September 15, 1955
Date Received in Field Office- - - - - - - - - - September 19, 1955
Date Received in Region Office- - - - - - - - - September 22, 1955

W. M. Traver

Enclosures
JDC:jy
cc: MF-104 File E796
Sec. Op. Comm. (2)
Shaw (2)
Chron.

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

Building 20
Denver Federal Center
Denver 2, Colorado
September 20, 1955

REGION III

Memorandum

RECEIVED
OCT 6 - 1955

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw JFS
Supervising Mining Engineer

From: Carl Belser

Subject: DMEA 3582, Contract Ida-2796 (Uranium), Red Rock, White Rock, and Paragon claims, Walter Duncan Mining Company, Section 34 and 35, T. 30 S., R. 25 E., Salt Lake Meridian, San Juan County, Utah - Progress report for August 1955.

Drilling progress was inspected on August 12, 1955. Ted Baer, geological engineer for the company, was in charge of operations. A Mayhew 1,000 rig is being operated on a two shift basis.

The following holes were drilled in August:

	Hole No.	Footage Plug-bit	Footage Cored	Footage Total
	#4	640	40	680
	#5	605	40	645
	#6	547	40	587
	#7	500	38	538
	#8	500	20	520
Total August	5	2,792	178	2,970
Total previous	3	1,899	120	2,019
Total through August	8	4,691	298	4,989

At the time of the inspection the following additional holes were drilled:

#9	530	40	570
#10	705	40	745

Apache #16 hole, near the southeast corner of the Walter Duncan tract is reported to run as follows (with assay values about 2/5ths. of indicated values):

Depth	eU_3O_8	Depth	eU_3O_8
348 -348.5	.16	352.5-353	2.46
348.5 -349	.11	353 -353.5	1.35
349 -349.5	.12	353.5-354	.76
349.5 -350	.14	354 -354.5	.62
350 -350.5	.25	354.5-355	.62
350.5 -351	.66	355 -355.5	.70
351 -351.5	1.23	355.5-356	.34
351.5 -352	1.98	356 -356.5	.13
352 -352.5	2.40	356.5-357	.06

Uranium mineralization in all holes drilled under the contract has been slight.

The cost of 2,792 feet of plug-bit drilling at $2.86 a foot is $7,985.12, and the cost of 178 feet of core drilling at $4.49 a foot is $799.22, or a total of $8,784.34.

Payment of 75 percent of the amount claimed, or $6,588.26 is recommended.

A mistake of $0.20 was found in the contractor's calculations.

Carl Belser
Carl Belser
Mining Engineer

CB:ph

cc 6
Idm-8796
Chron

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
OCT 6 - 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1955 Docket No. DMEA 3582 Contract No. Idm-E 796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P.O. Box 1468 Cortez, Colorado
Contract Amount, $ 76,088 Government Participation: 75 % Amount, $ 57,066

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling - Plug	7985.12	5431.14	13416.26			
~~Bulldozing~~ Core Drilling	799.02	538.80	1337.82			
Crosscutting	1 2		8.02			
Drifting						
Sampling	0	0	0			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
	3		2			
TOTALS	8784.14	5969.94	14754.08	8784.34	5969.94	14754.28

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Sept. 15, 1955 *Payee Walter Duncan Mining Co.

Per Charles R. Bates Title Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 6,588.26

Signature RRA
(Authorized Certifying Officer)

Date 9-26-55 Vou. No. DMA-56-29

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Rdm-E796 in accordance with the terms of the contract.

Signature [illegible] (6,588.26) Title Mining Engineer Date 9/20/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Lamey Title Executive Officer Date SEP 23 1955

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED
OCT 6 - 1955

Month of August 1955 Docket No. DMEA 3582 Contract No. Idm-E 796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P.O. Box 1468 Cortez, Colorado

Operation	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	feet	799.02	178	1337.82	298	4.49	1784	8010.16
~~Churn~~ Plug bit	feet	7985.12	2792	13416.26	4691	2.86	23716	67827.76
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Sampling	sample	0	0	0	0	5.00	50	250.00
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		8784.14		14754.08				76088.92

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

Date Sept. 15, 1955 Operator Walter Duncan Mining Co.

Per Charles R Butler Title Manager

Remarks:

NOTE.—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.

(Instructions on reverse)

(For Government use only) Carl Belen

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

RECEIVED
OCT 6 - 1955

Narrative Report
August, 1955

Five drill holes, No.'s DMEA 4A, 5, 6, 7 and 8, were completed during the month of August. The locations of these holes are shown on the included map.

Although three of the five holes showed slight but definite mineralization, the overall results of the August drilling were discouraging. One of the purposes of the project is to trace the limits of the medium to course grained white sandstone which is the ore host rock in the Continental Uranium Company mine directly east of the project, and none of the August holes found this sand.

Mineralization was noted in DMEA No.'s 4A, 5 and 8, but this is in green mudstone, and not considered particularly significant. However, No. 8 is considered semi-favorable on the basis of a 11' section of mudstone-sandstone conglomerate containing abundant carbon. This rock is similar to the outcrop rock at the Service Berry mine which is about 1500 feet northwest of the drill hole.

The enclosed map shows all the drilling to date on and adjoining the project area. The concentration of holes in the southwest corner of Section 36 is the western most portion of the Continental ore body, and represent a blocked out tonnage of approximately 20,000 tons. Tonnage for the entire Continetal orebody is estimated from 75,000 to 100,000 tons.

As shown on this map, recent drilling by Apache has discovered ore within 300 feet of the project boundary! This map also shows a compilation of information on ore sand thicknesses. Ore sand means the medium to course grained favorable sandstone host rock, and does not necessarily imply presence of ore.

The map also shows structure contours on the base of the Chinle formation. These contours show a flattening of the regional dip around the Apache ore hole No. D-16. It is hoped that by constantly revising these contours as additional holes are completed, other small changes in dip will be found. This may be significant in influencing the course of ground waters, and thereby possibly influencing the deposition and/or leaching of uranium.

Narrative Report

On the basis of known ore within short distances of the eastern end of the project and on the basis of favorable host rock within portions of the east end of the project, we believe that further drilling is justified in this area. After Stage 1 drilling is completed, we intend to ask for a revision of Stage 2 locations based on an evaluation of all the data available at that time.

No sampling was done during August, but all drill holes were probed, and USGS radiometric logs are available on most of the holes.

Charles R Butler

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

RECEIVED
OCT 6 - 1955

Project ~~Lisbon Valley~~
Drill Hole No. ~~DMEA-4A~~
Collar Elev.
Total Depth ~~678~~
LOCATION

Date ~~Aug. 26, 1955~~
Ore.
Min. X
Bar.

From	To	Rock	Color	Carbon		Remarks
0	40	ss	wh			Kayenta
40	280	ss	bn			Wingate
280	438	ms, ss	red			Chinle
438	640	ms	green			Chinle
640	657	ms	green		mcs	Slight min. 644.7-645.7
657	660	mds cong.	green	sparce		Abundant pyrite
660	661	mds. slts	gn & gr	sparce	mcs	
661	661.5	mds. cong.	gn & gr		mcs	Large mds inclusions
661.5	665	slts	gr & gn			mds inclusions
665	678	ss	red		mcs	Cutler, gn mds splits
Core Zone	640-678					

Summary of Log. OBSS _____ Thick 0 SS Color _____

Sh. _____ Under O.B.S.S.

Unfavorable

CRB

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Project ~~Lisbon Valley~~
Drill Hole No. ~~DMEA 5~~
Collar Elev.
Total Depth ~~645~~
LOCATION

Date
Ore. ~~Aug. 15, 1955~~
Min. X
Bar.

From	To	Rock	Color	Carbon	~~Other~~	Remarks
0	248	ss	lt br			Wingate
248		ss, ms	red			Chinle
	605	ms	gn			Chinle
605	622	ms	gn	sp		slight min. 610 - 612
622	625.5	ms cong.	wh & gn	ab.		pyrite & ls, gn ms galls
625.5	626.7	ss	wh	sp	mcs	fine grn.
626.7	645	ss, ms	red		mcs	gn layers - Cutler
Core Zone	605-645					

Summary of Log. OBSS 0 Thick 0 SS Color

Sh. Under O.B.S.S.

unfavorable

CRB

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

RECEIVED
OCT 6 - 1955

Project ~~Lisbon Valley~~
Drill Hole No. DMEA 6
Collar Elev.
Total Depth ~~587~~
LOCATION

Date ~~Aug. 17, 1955~~
Ore.
Min.
Bar. ~~X~~

From	To	Rock	Color	Carbon		Remarks
0	197	ss	lt bn			Wingate
197	460	ms	red			Chinle
460	547	ms	gn			Chinel
547	549	ms cong.	gn	med.		
549	551	var. ms, ss	gn, gr	med.		
551	557.5	ms	gn, gr			Splits
557.5	558.5	ms cong.	gn, gr	med.		limy
558.5	569	ms cong.	gn, gr	med.		interbedded, limy
569	577	ms cong.	gn, gr	med.		limy
577	580.5	ms	gn	med.	mcs	
580.5	581	ss	wh			fine grained
581	587	ms, ss	red		mcs.	Cutler
Core Zone 547 - 587						

Summary of Log. OBSS _____ Thick 0 SS Color _____

Sh. ~~red~~ Under O.B.S.S.

unfavorable

CRB

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DUMA # 7
Collar Elev.
Total Depth 540
LOCATION

Date August 17, 1955
Ore.
Min.
Bar. X

Probed by USGS

From	To	Rock	Color	Carbon		Remarks
0	152	ss	tan			Wingate
152	350	ms	red			Chinle
350	500	ms	gn			Chinle
500	520	ms	lt gn	med	mss	
520	534	ms	lt gn		mss	~~[illegible]~~
534	540	ss,ms	red		mss	Cutler
	Core Zone	500 - 540				
	Note:	No core recovered from 534 to 540,				
		but cuttings were saved				

Summary of Log. OBSS _____ Thick 0 SS Color _____

Sh. _____ Under O.B.S.S.

Unfavorable

CRB

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Project Lisbon Valley
Drill Hole No. DMM 8
Collar Elev.
Total Depth 520
LOCATION

Date Aug. 29, 1955
Ore.
Min. X
Bar.

Probed by USGS

From	To	Rock	Color	Carbon	Other	Remarks
0	140	ss	tan			Wingate
140	360	ms	red			Chinle
360	500	ms	gn			Chinle
500	502	slts	gr-gn	med		gn ms galls
502	502.5	slts	gr-gn	med		large flakes carbon
502.5	508	ms-ss cong	~~grngn~~ gr-gn	med		gr size and carbon increasing in lower section
508	508.2	carbon	black	all		Abundant pyrite
508.2	513	ms-ss cong	gr-gn	med		Med to large grn size. more cong. at base
513	515	ms	gn			limy
515	520	ms,ss	choc. red	med	mcs	Cutler
498	499	Rabble	probe	shows .02%	U_3O_8	to .10% U_3O_8
Core Zone	500-520					

Summary of Log. OBES ~~MS-ss~~ cong. Thick 11' SS Color

Sh.
Semi- favorable

Under O.B.S.S.

CRB

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

224 New Customhouse
Denver 2, Colorado

September 8, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582, (Uranium), Contract Idm-E796, Walter Duncan Mining Company, Red Rock, White Rock and Paragon claims, San Juan County, Utah.

Enclosed are two copies of the Operator's Monthly Progress Report, Form MF-104 and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data pertaining to work under the subject contract for the period July, 1955.

W. M. Traver

W. M. Traver

Enclosures

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION ~~IV~~ ~~XX~~

RECEIVED

Administrative Audit Difference Statement

Date: Sept. 1, 1955
Payee's
Reference: July, 1955

Walter Duncan Mining Co.
P. O. Box 1468
Cortez, Colo.

Gentlemen:

Upon examination of the above Payee's reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$ 6,027.14
Difference	$ 57.20
Amount Approved	$ 5,969.94

The reason for the difference was due to:

Drill logs show a total of 1099 feet drilled whereas the Form IP-104 claims 1919 feet.

Disallowed: 20 ft. none-core drilling @ 2.86 = 57.20

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

~~N.E. Stokes~~ Randel R. Cooper
~~Auditor-Section~~ Fiscal Officer

R-IV-B & F Form No. 4
4-15-52 D

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

224 New Customhouse
Denver 2, Colorado

August 24, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3532, (Uranium), Contract Idm-E796, Walter Duncan Mining Company, Red Rock, White Rock and Paragon claims, San Juan County, Utah - Operator's Monthly Progress Report, for the period July, 1955.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore, we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report, except as noted below.

Disallow charges for 20 feet of non-core drilling. The accompanying drill logs show a total of 1899 feet drilled, whereas the Form MF-104 claims 1919 feet.

Remarks:

Date of Report- - - - - - - - - - - - - - - - - -August 15, 1955
Date Received in Field Office- - - - - - - - - August 17, 1955
Date Received in Region Office- - - - - - - - August 23, 1955

W. M. TRAVER,

W. M. Traver

Enclosures

JDC:jy

cc: MF-104 File E796
Sec. Opr. Comm. (2)
Shaw (2)
Chron.

Building 20
Denver Federal Center
Denver 2, Colorado
August 22, 1955

Region III

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: Carl Belser

Subject: DMEA 3582, Contract Iâm-8796, (Uranium), Red Rock, White Rock, and Paragon claims, Walter Duncan Mining Company, secs. 34 and 35, T. 30 S., R. 25 E., Salt Lake Meridian, San Juan County, Utah -- Progress report for July, 1955.

Drilling progress was inspected on August 2, 1955, in company with L. J. Goetz. No one was at the property but R.F. Jenkins, one of the owners of the claims, was contacted, and guided the writer to the drill sites and core storage.

Jake Hammer, the driller, is said to be using a Mayhew 1,000, but had left the property with his drill about July 20 to drill some coal near Cortez and was expected back by August 4.

Three holes had been drilled at approved sites. Hole 1 was drilled on the East end of the Red Rock No.6 claim, hole 2 near the south sideline of the Paragon No. 5 claim, and hole 3 on the Paragon No. 8 claim.

Holes drilled were as follows:

Hole	Footage Plug-bit	Footage Core	Footage Total	Remarks
1	657	40	697	(682-682.4 some U_3O_8 (C-C 684'
2	679	40	719	C-C 712'
3	563	40	603	576'-577.7' U_3O_8
Total	1,899	120	2,019	

It will be noted from the logs submitted by the applicant that the plug-bit drilling amounted to 1,899 feet instead of 1,919 feet.

Contract cost for 1,899 feet of plug-bit drilling at $2.86 a foot is $5,431.14, and for 120 feet of core drilling at $4.49 a foot is $538.80, or a total of $5,969.94.

Payment of 75 percent of the work done in July or $4,477.46 is recommended.

Carl Belser
Carl Belser
Mining Engineer

CB:jw

cc: 6 ✓
E796
Chrom.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1955 Docket No. DMEA 3582 Contract No. Idm-E 796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P.O.Box 1468 , Cortez, Colorado
Contract Amount, $ 76,088 Government Participation: 75 % Amount, $ 57,066

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling -Non Core	5488.34		5488.34	5,431.14	-0-	5,431.14
~~Bulldozing~~ -Core Drilling	538.80	0	538.80	538.80	-0-	538.80
Crosscutting						
Drifting						
Sampling	0	0	0			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	6027.14		6027.14	5,969.94	-0-	5,969.94

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 8/15/55 *Payee Walter Duncan Mining Co.

Per Charles R. Butler Title Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 4,477.46

Signature Randell R. Cooper
(Authorized Certifying Officer)

Date 9/1/55 Vou. No. DMA-56-22

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Tdn-E786 in accordance with the terms of the contract.

Signature Carl Baker (4,477,46) Title Mining Engineer Date 8/18/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Weaver Title Executive Officer Date AUG 24 1955

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1955 Docket No. DMEA 3582 Contract No. Idm-E 796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P.O. Box 1468, Cortez, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	feet	538.80	120	538.80	120	4.49	1784	8010.16
~~Churn~~ plug bit	feet	5488.34	1919	5488.34	1919	2.86	23716	67827.76
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Sampling	sample	0	0	0	0	5.00	50	250.00
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		6027.14		6027.14				76,088

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

Date 8/15/55 Operator Walter Duncan Mining Co.

Per Charles R Butler Title Manager

REMARKS: As explained in Narrative, we had only 50% recovery on one 20 foot section of core.

NOTE.—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.

(Instructions on reverse)

(For Government use only) Carl Belen

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

August 9, 1955

July Narrative Report
DMEA # 3582

Three holes were completed on the project in July. The locations of these holes are shown on the included map, and logs for the holes are attached to the Narrative.

Two of the three holes showed mineralization in the sandstone near the base of the Hogsback. Radiometric readings indicate 1.7' of 0.05 U_3O_8 in DMEA #3 and 0.4' of 0.05 U_3O_8 in DMEA #1. Half of the first 20' core was lost on DMEA #3, so the type of rock containing the mineralization is unknown.

Arrangements have been completed with Continental Uranium Company and Apache Uranium Company to exchange drilling and survey data. This information together with the data from our August DMEA drilling should be sufficient to show ore and mineralization trends, contours on the base of the chinle, and lateral extent of the carbon bearing white medium grained "ore sand" in the project area. Such a map will be included in the August report.

RECEIVED

SEP 16 1955

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Date July 1, 1955
Ore.
Min. X
Bar.

Project Lucky Valley
Drill Hole No. DDH 2
Collar Elev.
Total Depth 657
Location

By - L.J. Davis

From	To	Rock	Color	Carbon	Other	Remarks
0	32	ob	red			Bayonne
32	394	ob	red-buff			Lamoso
394	657	ob & ob mineceno	red-green			Shale
657	672	ob	gray-green			Shale
672	682	ob	light gray	sparse	carbonate	medium grained sugar ob with some lenses
						Shale to ore and of hole
						last section of lower shale.
CORE 682	682.9	mineceno	light gray	medium	mineceno	Shale. Light mineralization 682-682.4
682.9	657	mineceno mineceno	dark red dark gray		mineceno	Shale?

Note - Mineralized core will be assayed.

Summary of Log. OBSS _____ Thick 10' _____ SS Color _____

Sh. _____ Under O.B.S.S.

Core zone - 657 to 657
% recovery - 95%

Certified: Charles R Burton

RECEIVED

SEP 12 1955

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Project ~~Pinion Valley~~
Drill Hole No. ~~DDH 76~~
Collar Elev.
Total Depth ~~719~~
Location

Date ~~July 12, 1955~~
Ore.
Min.
Bar. X

Hole probed by Duncan 7-12-55

From	To	Rock	Color	Carbon	Other	Remarks
0	69	ss	red			Alluvia
69	322	ss	red-buff			Chinle
322	540	sh	red			Chinle
540	679	sh	gray-green	trace		Chinle
679	696	silst	gray		disseminated	some int. blue mineral
696	700	silst	gray-green			
CORE 700	707	silst	green			conglomeritic
707	713	ss	white	none		fine gr. incl. green
713	714	silst	green			Chinle?
714	719	shale	red		disseminated	Chinle

Summary of Log. OBSS _____ Thick 6' SS Color white

Sh. _____ Under O.B.S.S.

Core zone - 679 to 719
% recovery - 95 %

Certified: Chas. R. Butler

WALTER DUNCAN MINING CO.

DRILL HOLE LOG

Date 7-13-55
Ore.
Min. X
Bar.

Project Lagon Valley
Drill Hole No. DDH 3
Collar Elev.
Total Depth 603
Location

Started 7-13-55 by Duncan
and ended 8-1-55

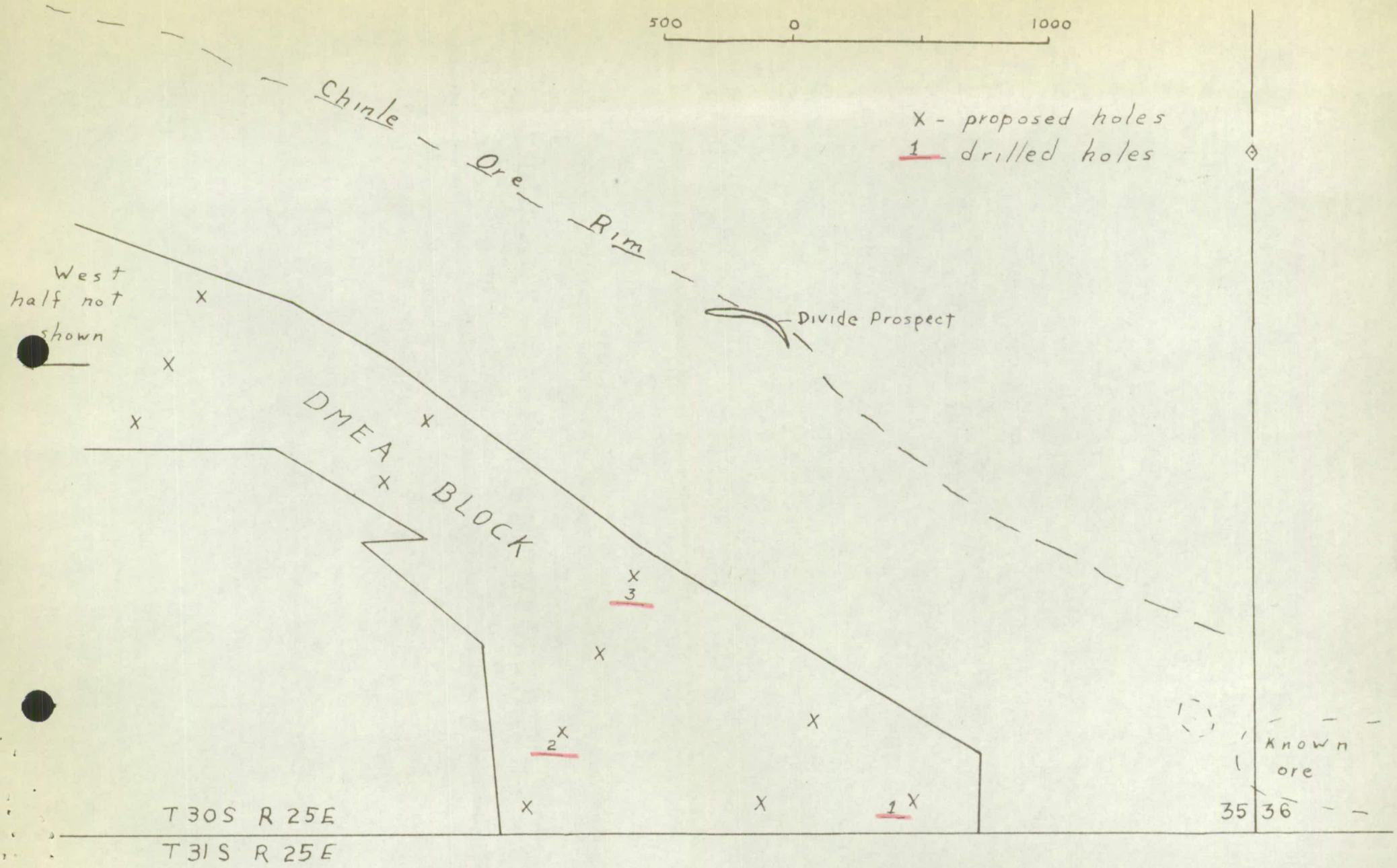
From	To	Rock	Color	Carbon		Remarks
0	263	ss	red-buff			Alluvio
263	370	ss-mdst	red			Chinle
370	563	mdst	gray-green	trace		Chinle (Moenkopi)
563	583	mdst	green			see note below
						Chinle mineralized
						Cores. 0.05% U3O8
						576 to 577.7
583	586	mdst	green			
586	589	mdst	gray-green	medium		conglomeritic
589	590	siltst	green		abundant	Kaibab?
590	603	siltst	red		abundant	Kaibab?

Summary of Log. OBSS _____ Thickness from 18 OBSS Color _____

Sh. _____ Under O.B.S.S.

Had 90% recovery in first 30' core. Lost mineralized section.

Geologist: Charles R. Butler



JULY DRILLING

WALTER DUNCAN MINING CO.
P. O. BOX 1468 - CORTEZ, COLORADO

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

RECEIVED
AUG 29 1955

224 New Customhouse
Denver 2, Colorado

August 25, 1955

Memorandum

To: John F. Shaw, Supervising Mining Engineer

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3582 (Uranium), Contract Idm-E796, Walter Duncan Mining Company, San Juan County, Utah - Monthly Report for July, 1955.

In accordance with your telephone instructions of this morning we are returning all copies of the subject report to your office for correction of two typographical errors in the examining engineer's memorandum.

W. M. TRAVER,

W. M. Traver

Enclosures

JDC:jy

cc: MF-104 File E796
Sec. Opr. Comm. (2)
Chron.

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

224 New Customhouse
Denver 2, Colorado

July 19, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3582 (Uranium), Contract Idm-E796, Walter Duncan Mining Company, San Juan County, Utah

Enclosed are two copies of the Operator's Monthly Progress Report, form MF-104 and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report and other supporting data pertaining to work under the subject contract for the month of June, 1955.

W. M. Traver

W. M. Traver

Enclosures

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

224 New Customhouse
Denver 2, Colorado

July 12, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3582 (Uranium), Contract Idm-E796, Walter Duncan Mining Company, San Juan County, Utah - Operator's Monthly Progress Report for the Month of June, 1955

Enclosed are the original and four copies of form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work under terms of the contract is in process, but no claim is made for reimbursement for the month of June, 1955.

Remarks:

Date of Report.....July 1, 1955
Date Received in Field Office.....July 5, 1955
Date Received in Region Office.....July 8, 1955

W. M. Traver

Payment Made
7/13/55
JS

Enclosures

RDB:sr

cc Sec. Op. Comm. (2)
Subject
Shaw
Chron

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
July 7, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw

Subject: Monthly Progress Report, Form MF-104 and MF-104A, June 1955, Walter Duncan Mining Company, Contract Idm-E796, DMEA 3582.

Enclosed are five copies of form MF-104, 104-A and a narrative report for the month of June submitted by Walter Duncan Mining Company.

You will note that no claim is made during the period.

John F. Shaw
Supervising Mining Engineer

Enclosures

cc 5
E796
Chron

JFS/cm

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 21 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1955 Docket No. DMEA 3582 Contract No. Idm-E796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P. O. Box 1468 Cortez, Colorado
Contract Amount, $ 76,088.00 Government Participation: 75 % Amount, $ 57,066.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) ~~Independent~~ Short Form Contracts:						
Drilling	0	0	0			
Bulldozing						
Crosscutting						
Drifting						
Sampling	0	0	0			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	0	0	0			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date July 1, 1955 *Payee Walter Duncan Mining Co.

Per _____ Title Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$_____

Signature _____
(Authorized Certifying Officer)

Date _____ Vou. No. _____
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. ..... in accordance with the terms of the contract.

Signature ..... Title ..... Date .....

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature ..... Title ..... Date .....

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1955 Docket No. DMEA 3582 Contract No. ldm-E796
Operator's Name Walter Duncan Mining Company Minerals Uranium
Address P. O. Box 1468 Cortez, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	feet	0	0	0	0	4.49	1784	8010.16
Churn	feet	0	0	0	0	2.86	23716	67827.76
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Sampling	sample	0	0	0	0	5.00	50	250.00
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		0		0				76,088

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

Date July 1, 1955 Operator Walter Duncan Mining Co.

Per _____ Title Manager

REMARKS: Project started June 29. Drilling is in progress on Hole No. DMEA-1. No completions to date.

→ NOTE.—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.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

WALTER DUNCAN MINING CO.
P. O. BOX 1468
CORTEZ, COLORADO

July 1, 1955

DMEA 3582 (Uranium)
Idm - 5796

NARRATIVE - JUNE

Actual work on the project was commenced June 29, 1955. Drilling on Hole No. DMEA -1 is in progress, but will not be completed until July. This hole is in the easternmost portion of the project area and has an estimated depth of 385'.

Bulldozing for drill sites and road repair, surveying, establishment of camp and all other jobs necessary for the performance of the project are being done.

The camp is situated in the eastern section of the project area near Hole No. DMEA -1 and may be reached by driving approximately 1500 feet due west of the SE Corner of Section 35 and then turning north about 150 feet. For the benefit of inspecting or supervisory government personnel, we intend to work from east to west on the Phase One holes. The camp will be open Monday thru Friday and the drill will operate on a two shift basis. All cores and cuttings will be stored at camp.

Respectfully submitted,

Charles R Butler

Charles R. Butler, Manager
Walter Duncan Mining Company

CRB;hm

July 5, 1955

Memorandum

To: Acting Assistant Solicitor, DMEA

From: F. M. Murphy, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Review of Supplemental Agreements
Docket No. DMEA-3582 (Uranium)
Contract No. Idm-K796
J. Walter Duncan, Jr.
d/b/a Walter Duncan Mining Co.

Referring to the above executed contract and Mr. Traver's memorandum dated June 28, 1955, I have checked the legal papers submitted by the Field Team and believe they meet our requirements. However, I believe the Supplemental Agreements should be forwarded to you for further check.

F. M. Murphy

FMMurphy:am
cc to: Docket
Code 700
Mr. Murphy

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

JUL - 8 1955

Memorandum

To: Administrator, DMEA
Attention: E. W. Ellis

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3582 (Uranium), J. Walter Duncan, Jr., Contract No. Idm-K796

In response to Mr. Murphy's memorandum dated July 5 we have reviewed two supplemental agreements concerning land dated June 21 and June 23, 1955, submitted with the Executive Officer's memorandum of June 28 to the Operating Committee, and are of the view that the Operator has now demonstrated a sufficient interest in the land for the purposes of an exploration project contract.

J. L. Hofflund
Acting Assistant Solicitor,
Defense Minerals

HCRubin:gjb 7/7/55

Copy to: DMEA Docket
Sol. Docket
E. W. Ellis (2)
J. L. Hofflund
H. C. Rubin
Chron. File

July 5, 1955

Memorandum

To: Acting Assistant Solicitor, DMEA

From: F. M. Murphy, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Review of Supplemental Agreements
Docket No. DMEA-3582 (Uranium)
Contract No. Idm-E796
J. Walter Duncan, Jr.
d/b/a Walter Duncan Mining Co.

Referring to the above executed contract and Mr. Traver's memorandum dated June 28, 1955, I have checked the legal papers submitted by the Field Team and believe they meet our requirements. However, I believe the Supplemental Agreements should be forwarded to you for further check.

F. M. Murphy

FMMurphy:am
cc to: Docket
Code 700
Mr. Murphy

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

224 New Customhouse
Denver 2, Colorado

RECEIVED
JUL - 1 1955
JUN 28 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3582 (Uranium), Contract Idm-E796, J. Walter Duncan, Jr., dba Walter Duncan Mining Company, Red Rock et al. claims, San Juan County, Utah

Enclosed are one copy each of two Supplemental Agreements which we believe will satisfy the requirement of the Legal Division concerning the applicant's property rights. On that basis we have released the contract to the operator for signature and are enclosing the Government, Division and Docket copies of the executed contract.

Copies of the contract have been given to the operator, the Finance Office, Region III, and a copy has been retained for our files.

W.M. Traver

W.M. Traver

Encls.

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

224 New Customhouse
Denver 2, Colorado

June 24, 1955

Mr. J. Walter Duncan
d/b/a Walter Duncan Mining Company
Post Office Box 1468
Cortez, Colorado

Re: Docket DMEA-3582 (Uranium)
Contract Idm-E796

Dear Mr. Duncan:

Enclosed herewith is your copy of Exploration Project Contract No. Idm-E796, Docket DMEA-3582.

Also enclosed are six copies of form MF-104, "Operator's Monthly Report and Voucher" and six copies of form MF-104A, "Operator's Unit Cost and Progress Report", At the completion of the first calendar month of operation and monthly thereafter you are required to submit five copies of the forms to Mr. J. F. Shaw, U. S. Bureau of Mines, Room 137, Building 20, Denver Federal Center, Denver 2, Colorado. The sixth form is for your records.

Please note that the monthly report requires a narrative report which should be accompanied by maps or sketches. The narrative report must be signed by the operator. The monthly report will not be processed for payment unless accompanied by a narrative report. Additional copies of forms MF-104 and MF-104A will be forwarded to you as required.

For your information and in reply to many questions that have been asked, after forms MF-104 and MF-104A are received an engineer will check progress and approve your accounts, after which it will be sent to the Regional Office, Region III, U. S. Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, for auditing and vouchering. If the report is in order, a check will be issued by the Treasury Department for the Government's portion of the costs. If you have any difficulty in completing these forms and the reports, please call on Mr. Shaw or this office for assistance.

In the matter of your claim for reimbursement of drilling costs, reimbursement to you under the terms of the contract will be on the basis of a hole or holes completed to the objective, therefore your monthly report should include only such holes that are completed.

Your attention is directed to the provision that Stage II work is contingent on the results obtained from Stage I and performance of the work under Stage II is subject to the prior approval of the Government.

When Stage I has been completed you should request approval from this office of the work you propose to perform under the next stage. Your request for the work approval must be in sextuplicate, complete with a map showing the location of the holes drilled under Stage I, the proposed location of holes to be drilled under Stage II and the results of the work performed under Stage I, including assay returns and any other pertinent data which will be of value to the Government in evaluating the work performed under Stage I. You should anticipate a suspension of operations between stages of work to enable the Government geologist and engineer to evaluate the results of the work performed and make their recommendations to this office relative to the additional work you propose.

To eliminate as much delay as possible, if that is of serious consideration, you should expedite forwarding of the results of the work completed and your request for the Government's approval of the additional work you propose.

Field representatives of the Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington office, DMEA or the DMEA Field Team, Region III which is comprised of E. N. Harshman, U. S. Geological Survey member and W. M. Traver, U. S. Bureau of Mines member.

It is a regulation that reimbursement for the cost of work accomplished prior to the date of the contract will not be allowed. It is also a requirement that you notify this office in writing the date work actually commences under the contract, with a copy of your letter to Mr. Shaw.

Very truly yours,

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

Enclosures

JWT:sr

cc Subject
Chron
Amendment File
Chairman Op. Comm. (2)
Harshman
Shaw
Hassler
Townsend

JUN 10 1955

Mr. L. M. Turner
Executive Officer
AEC Field Team, Region III
221 New Customhouse Building
Denver 2, Colorado

Re: Contract No. AEC-3502 (Uranium)
Contract No. Ut-1796
J. Walter Duncan, Jr., d/b/a
Walter Duncan Mining Company
Red Rock claims, et al.
San Juan County, Utah

Dear Mr. Turner:

Enclosed are the original and five copies of a revised proposed short-form contract between the Government and J. Walter Duncan, Jr., d/b/a Walter Duncan Mining Company. Also enclosed are two copies of a memorandum, dated June 6, 1955, to the Administrator from the Acting Assistant Solicitor, which is self-explanatory.

Copies of a proposed contract were forwarded to your office on May 10, together with copies of a memorandum from the Legal Division concerning the property rights of the Applicant. Copies of that contract, together with other data, were returned to Washington with your covering memorandum, dated May 20, 1955, because of land conflicts that could not be resolved by the Applicant.

Your memorandum also expressed some doubt as to whether the proposed contract (originally forwarded) authorized sufficient drilling footage to complete the first stage work. A review of the land withdrawn and the small fraction added under the revised contract indicated that one hole could be eliminated from the original proposed contract in both Stage I and II. In the revised proposed contract, therefore, we deleted one hole from each of the stages. However, to provide sufficient footage to complete the proposed work, the same totals for authorized drilling footage have been used and the total estimated cost of the contract remains the same.

When the recommendations mentioned by the Legal Division have been complied with, if you and the Operator find the revised proposed contract in order, please insert in Article 3 of the contract form the date work shall commence. Then have the Operator sign the original and all copies. Thereafter, kindly make the usual distribution.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

FMMurphy/gla
6-8-55

APPROVED:

J. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hostad, Rm. 3210, OSA
Code 700
Mr. Murphy

P.S. Referring to your observation in the above-mentioned memorandum, that for efficient administration, drilling contracts should only limit the number of holes authorized and should allow the actual footage required to complete each stage. To avoid auditing difficulties previously encountered, all units and unit costs are now written as maxima as has been done in this short form contract.

Recent information gained by the exploratory drilling on the property adjacent to the captioned claims might indicate that the location of the drill holes and the direction of the lines of holes, shown on the map attached to the proposed contract, should be changed to take advantage of such information (see Allied Uranium Mines, Inc., DMEA-3834). This is your authority to make such changes. However, the distances between holes and the outer boundaries of the claim group, mentioned in the contract must remain within the prescribed limits mentioned in the contract.

June 8, 1955

Memorandum

To: Chairman, Operating Committee

From: F. M. Murphy, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-3582 (Uranium)
Contract No. Ida-8796
J. Walter Duncan, Jr., d/b/a
Walter Duncan Mining Company
Red Rock claims, et al.
San Juan County, Utah
Revised proposed contract

In this revised contract, two holes mentioned in the originally proposed contract were deleted; however, the same total footage is authorized. The cost per foot for supervision was not recalculated, as the two holes eliminated (totaling 637 feet) represent only about nine days' difference in the total supervision period of 15 months.

F. M. Murphy

FMMurphy/gla
cc to: Docket
Code 700 ✓
Mr. Murphy

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

Memorandum JUN - 6 1955.

To: The Administrator, DMEA
Attention: E. W. Ellis

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3582 (Uranium), Walter J. Duncan, San Juan County, Utah

With a memorandum dated May 2 we transmitted a proposed contract for the subject project and outlined several matters concerning the land which required clarification.

On May 31 Mr. Murphy resubmitted the matter to us together with a memorandum dated May 20 from the Field Team to the Operating Committee and attachments thereto, and requested that we revise the description of the land, and the work as indicated on the "Extra Copy" of the contract.

The documents submitted with the May 20 memorandum from the Executive Officer resolve that part of point 2 of our memorandum of May 2 that deals with the Patterson Fraction claim, resolve point 3 and resolve the last paragraph in the memorandum. However, they do not resolve the questions of the leases in points 1 and 2 covering all claims other than the Patterson Fraction. In fact, with respect to the claims other than Patterson Fraction, we have again been furnished copies of lease agreements which we already have. This probably occurred because the Executive Officer's letter to the applicant loosely paraphrased the context of our memorandum concerning the leases. The point involved, and to be resolved, is that we have been furnished with copies of leases which provide for the assignment of AEC leases when issued. However, no AEC leases were issued; instead, the lessors validated the locations of their claims and therefore there should be evidence of a new lease of the lessors' interests in the claims.

Accordingly, we have revised the land description, and the work, as indicated; however, execution of the contract is subject to the conditions discussed in this memo.

s/H. C. Rubin
For J. L. Hofflund
Acting Assistant Solicitor,
Defense Minerals

Attachment

HCRubin:gjb 6/6/55

Copy to: DMEA Docket
Sol. Docket
E. W. Ellis (2)
J. L. Hofflund
H. C. Rubin
Chron. File

MAY 1 0 1955

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

Re: Docket No. DMEA-3582 (Uranium)
J. Walter Duncan, Jr.
Red Rock claims, et al.
San Juan County, Utah

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed short-form contract between the Government and J. Walter Duncan, Jr., d/b/a Walter Duncan Mining Company. Also enclosed are two copies of a memorandum, dated May 2, 1955, to the Administrator from the Acting Assistant Solicitor, which is self explanatory.

You will note that the Operator must submit the documents mentioned in the above memorandum, prior to the execution of the contract. After this request is complied with, if you and the Operator find the proposed contract in order, please insert in Article 3 of the contract, the date work shall commence. Then have the Operator sign the original and all copies, and thereafter kindly make the usual distribution.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee

Enclosures

APPROVED:
/s/ John E. Crawford
Member, Bureau of Mines
/s/ R. D. Trace
Member, Geological Survey

P.Murphy:am
5-4-55
cc to: Admr. Reading File
Operating Committee
Docket
Members. J. E. Crawford, Rm. 3641
T. H. Killingsard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Murphy

MAY 2 1955

Memorandum

To: The Administrator, DMEA
Attention: Mr. E. W. Ellis

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3582, Walter Duncan Mining Company (Uranium)

Pursuant to Mr. Murphy's memorandum dated April 15, we have prepared the attached contract.

From the documents in the docket it appears that the land referred to in Article 2 is derived by the Operator from two sources--under an agreement dated May 7, 1954, with Q. S. Bullock, and under an agreement dated April 22, 1954, with C. O. Patterson, et al, which agreement was amended December 6, 1954, to add certain claims. Both of these agreements recite that they depend upon the issuance of A.E.C. leases and, by express provision, require further assignments by the lessors of the A.E.C. leases, if and when issued to the lessors. However, it appears from notations on the Owner's-Consent-to-Lien forms, submitted subsequent to the application, that the lessors validated their mining locations under the provisions of P. L. 585.

In view of the foregoing, prior to the execution of the contract, we require:

1. A copy of a lease of the Paragon claims from Bullock to the Operator.

2. A copy of the lease of the remaining claims listed in Annex I of the contract, including the Patterson Fraction claim, from the Patterson group of lessors. The recording data concerning the Patterson Fraction claim should be inserted in the space provided in Annex I.

3. A consent to Lien covering the Patterson Fraction claim.

With respect to the Owners' Consents to Lien already submitted, the Patterson group of lessors consists of G. O. Patterson, Floyd B. Jenkins, Lyle Francis, Robert Jenkins, and Frank L. Seymour. The Owner's Consent to Lien submitted for the Red Rock group of claims omits the signature of Frank Seymour. The Owner's Consent to Lien for the White Rock group of claims omits the signatures of Lyle Francis and Frank Seymour. As the agreement dated April 22, 1954, makes no distinction as to ownership of the claims, the accuracy of the Owners' Consents to Lien should be verified prior to the execution of the contract. If the name of Frank Seymour is required as an addition to the Owners' Consents to Lien, his name also should be added to Article 2(a) of the contract form.

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Attachments

HCRubin/emd
Copy to: DMEA Docket
Solicitor's Docket
E. W. Ellis (3)
J. L. Hofflund
H. C. Rubin
chron.

April 15, 1955

Memorandum

To: Acting Assistant Solicitor, DMEA

From: Fred M. Murphy, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Proposed Contract
Docket No. DMEA-3582 (Uranium)
J. Walter Duncan, Jr.
Red Rock claims, et al.
San Juan County, Utah

Will you kindly prepare a short-form contract with the subject Applicant in accordance with the attached draft.

The documents and maps concerning property rights, etc., are hereto attached.

You will note in Annex I the claim "Patterson Fraction" is shown without book or page number, further more, it is not covered by the Owner's Consent to Lien submitted. This is probably due to an oversight, therefore, in order to expedite the processing of the proposed contract, it can be made subject to filling in this data in Annex I and adding the claim to the submitted Owner's Consent to Lien forms, at the time the Operator signs the contract.

F. M. Murphy

Attachments

FMMurphy:am
cc to: Docket
Code 700
Mr. Murphy

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

224 New Customhouse
Denver 2, Colorado

April 8, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA-3582 (Uranium), J. Walter Duncan, Jr. (Red Rock claims, et al.), San Juan County, Utah

This replies to your letter of March 23, 1955 on the subject docket concerning estimated costs for drilling.

Enclosed are the original and three copies of a memorandum on a cost revision. We believe that the estimated costs in this memorandum are fair to both the Operator and the Government, and recommend that a short form contract be prepared using these unit costs.

W. M. Traver

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

APR 7 1955
BUREAU OF MINES
Denver, Colorado

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
April 6, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw, Supervising Mining Engineer

Subject: Docket DMEA 3582 (Uranium), J. Walter Duncan, Jr., Red Rock claims, et al., San Juan County, Utah

Enclosed are the original and seven copies of a memorandum which was prepared by M. H. Salsbury in accordance with a request in a letter from the Chairman of the Operating Committee to the Executive Officer, Region III, dated March 23, 1955.

The revised costs per foot for plug-bit drilling are 38 cents higher than those recommended by the Chairman of the Operating Committee and the revised costs per foot for core drilling are 9 cents higher. The estimated direct costs of drilling as used by the engineer in the original report are those which were submitted by the applicant. These costs are considerably lower than the costs of other contracts in force on the Plateau and are considerably less than the prices quoted by an independent contractor. We believe that the estimated costs in this memorandum are fair to both the operator and the Government and recommend that a short form contract be prepared using these unit costs.

John F. Shaw

John F. Shaw

Enclosures

cc 7
DMEA 3582
DMEA Chron

JFS/cm

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
April 5, 1955

Memorandum

To: John F. Shaw, Supervising Mining Engineer

From: M. H. Salsbury

Subject: Docket DMEA 3582 (Uranium), J. Walter Duncan, Jr., Red Rock claims et al, San Juan County, Utah -- Supplemental Report on Cost Figures.

The cost estimate in the engineering report on the subject DMEA application was arrived at by using the applicant's estimated direct drilling costs which amounted to $2.63 per foot. Slight revision, including elimination of a charge for insurance on the drill rig, brought the total direct cost to $61,325.10 for 1,784 feet of core and 23,716 feet of non-core drilling or an average for both types of $2.40 per foot. This compared favorably with drilling costs for the same depth holes and proportions of core and non-core drilling, computed at the contract rates in effect at two current Geological Survey projects and considerably less than a bid made the applicant by Minerals Engineering Co.

Comparative Cost of Drilling Holes Averaging 608* Feet Deep

Minerals Engineering Co. Bid	USGS Beaver Mesa	USGS Slick Rock	Applicant's estimate	Bureau of Mines estimate
$3.09	2.70	2.44	2.63	2.40

* non-core depth 565 feet, cored depth 43 feet.

The applicant's cost figures were discussed with his manager, Charles Butler, who stated that the estimate for drilling supplies which would be subject to wear and consumption, was based on past experience with their own rig, and the costs used represented the expected consumption on that basis. That is, during the course of drilling 25,500 feet, the equivalent of 160 10-foot drill rods, 2 diamond drill bits, and so on, would be worn out, but more than this amount would actually be purchased.

The only figure available in the office for estimating diamond bit cost is one of $0.50 per foot, used in an estimate in drilling EX size hole through Dakota and Morrison sediments on another project. The applicant uses a figure of $2,000.00 for diamond bits for 1,784 feet of core drilling in a hole with an outside diameter of 4-1/4 inches or $1.12 per foot. This is probably not excessive, for this size hole, but we do not have data for comparison. The same applies to the cost of $9,000.00 for rock-bits and Hawthorne blades for 23,716 feet of non-core drilling, or $0.38 per foot.

Inasmuch, as the average unit cost per foot as calculated in the Bureau of Mines estimate, based for the most part on the applicant's figures, is less than actual comparable contract prices and also less than the Minerals Engineering Company's bid, the Bureau engineer believes that the applicant's estimate on direct drilling costs are reasonable, with the item for insurance eliminated.

Other items of expense in the applicant's estimate such as geological services and supervision for 18 months, a surveyor and helper for a total of 5 months, and excessive accounting charges were also reduced in the Bureau of Mines estimate. A further reduction can be effected by eliminating the surveyor and helper, and the allowance for contingencies, as suggested by the Washington office.

After consideration, it is believed that the suggested revision on these items is justified. The applicant employs a surveying crew, but no extra charge need be made for their services because the amount allowed for supervision probably more than covers the actual amount of supervision required. As the costs were figured on a 15-month basis or 1,700 feet per month, perhaps the allowance for contingencies is not necessary as drilling rates of up to 2,000 feet per month per rig are common when the major portion of the drilling is non-core. In the revised estimate which follows, the costs figures used originally in the engineering reports are included, except the charges for surveyor and helper, and contingencies:

Revised Cost Estimate for
DMRA 3528
J. Walter Duncan, Jr.
(not segregated as to phases)
Distribution

Item	Non-core drilling (23,716 feet) 93% Direct	Non-core drilling (23,716 feet) 93% Other	Core drilling (1,784 feet) 7% Direct	Core drilling (1,784 feet) 7% Other	Total 25,500 feet Direct	Total 25,500 feet Other
Independent contracts (bull dozing)		$2,153.88		$162.12		$2,316.00

Item	Non-core drilling (23,716 feet) 93% Direct	Other	Core drilling (1,784 feet) 7% Direct	Other	Total 25,500 feet Direct	Other
Labor	$19,747.62		1,486.38		21,234.00	
Supervision and technical services		8,523.45		641.55		9,165.00
Drilling supplies	15,751.75		4,088.25		19,840.00	
Other supplies	7,543.46	771.90	567.79	58.10	8,111.25	830.00
Operating equipment	7,319.06	418.50	550.90	31.50	7,869.96	450.00
Miscellaneous (less analyses)						
Repairs to equipment	1,873.95		141.05		2,015.00	
Accounting		1,395.00		105.00		1,500.00
Payroll taxes (8.5%)	1,678.55	724.49	126.34	54.53	1,804.89	779.02
Total	53,914.39	13,987.22	6,960.71	1,052.80	60,875.10	15,040.02

Calculated Cost Per Foot

Non-core drilling (direct)	$53,914.39 / 23,716	$2.27
Non-core drilling (other)	$13,987.22 / 23,716	.59
Total non-core drilling		$2.86
Core drilling (direct)	$6,960.71 / 1,784	$3.90
Core drilling (other)	$1,052.80 / 1,784	.59
Total core drilling		$4.49

Average cost all drilling per foot

Direct cost	$60,875.10 / 25,500	$2.39
Other cost	$15,040.02 / 25,500	$ .59
Total average cost		$2.98

Summary of Estimated Costs

Plug drilling
23,716 feet at $2.86 per foot $67,895.59

Core drilling	
1,784 feet at $4.49 per foot	$8,010.16
Chemical analysis 50 samples at $5.00 each	250.00
Total estimated cost	$76,155.75
Government participation at 75 percent	57,116.81

The revised unit cost of $4.49 per foot for core drilling is only $.09 higher than that suggested by the Washington DMEA office, but the unit cost of $2.86 per foot for non-core drilling is $0.38 higher. If it is Washington's opinion that the revised unit costs quoted are still too high to protect the Government's interest, perhaps a contract similar to the one approved for DMEA 3397, Contract Idm-8722, Ray Ryan, should be considered, unless the applicant will agree to the Washington figures.

M. N. Salsbury
Mining Engineer

cc WMTraver (orig/7 copies)
DMEA 3582
Chron

MNS/em

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

224 New Customhouse
Denver 2, Colorado

April 8, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA-3582 (Uranium), J. Walter Duncan, Jr. (Red Rock claims, et al.), San Juan County, Utah

This replies to your letter of March 23, 1955 on the subject docket concerning estimated costs for drilling.

Enclosed are the original and three copies of a memorandum on a cost revision. We believe that the estimated costs in this memorandum are fair to both the Operator and the Government, and recommend that a short form contract be prepared using these unit costs.

W. M. Traver

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

BUREAU OF MINES
Denver, Colorado

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
April 6, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw, Supervising Mining Engineer

Subject: Docket DMEA 3582 (Uranium), J. Walter Duncan, Jr., Red Rock claims, et al., San Juan County, Utah

Enclosed are the original and seven copies of a memorandum which was prepared by M. H. Salsbury in accordance with a request in a letter from the Chairman of the Operating Committee to the Executive Officer, Region III, dated March 23, 1955.

The revised costs per foot for plug-bit drilling are 38 cents higher than those recommended by the Chairman of the Operating Committee and the revised costs per foot for core drilling are 9 cents higher. The estimated direct costs of drilling as used by the engineer in the original report are those which were submitted by the applicant. These costs are considerably lower than the costs of other contracts in force on the Plateau and are considerably less than the prices quoted by an independent contractor. We believe that the estimated costs in this memorandum are fair to both the operator and the Government and recommend that a short form contract be prepared using these unit costs.

John F. Shaw
John F. Shaw

Enclosures

cc 7
DMEA 3582
DMEA Chron

JFS/cm

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
April 5, 1955

Memorandum

To: John F. Shaw, Supervising Mining Engineer

From: M. H. Salsbury

Subject: Docket DMEA 3582 (Uranium), J. Walter Duncan, Jr., Red Rock claims et al, San Juan County, Utah -- Supplemental Report on Cost Figures.

The cost estimate in the engineering report on the subject DMEA application was arrived at by using the applicant's estimated direct drilling costs which amounted to $2.63 per feet. Slight revision, including elimination of a charge for insurance on the drill rig, brought the total direct cost to $61,325.10 for 1,784 feet of core and 23,716 feet of non-core drilling or an average for both types of $2.40 per foot. This compared favorably with drilling costs for the same depth holes and proportions of core and non-core drilling, computed at the contract rates in effect at two current Geological Survey projects and considerably less than a bid made the applicant by Minerals Engineering Co.

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DMRA 3528
J. Walter Duncan, Jr.
(not segregated as to phases)
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Calculated Cost Per Foot

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Total core drilling		$4.49

Average cost all drilling per foot

Direct cost	$60,875.10 / 25,500	$2.39
Other cost	$15,040.02 / 25,500	$ .59
Total average cost		$2.98

Summary of Estimated Costs

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23,716 feet at $2.86 per foot $67,895.59

Core drilling	
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Chemical analysis 50 samples at $5.00 each	250.00
Total estimated cost	$76,155.75
Government participation at 75 percent	57,116.81

The revised unit cost of $4.49 per foot for core drilling is only $.09 higher than that suggested by the Washington DMEA office, but the unit cost of $2.86 per foot for non-core drilling is $0.38 higher. If it is Washington's opinion that the revised unit costs quoted are still too high to protect the Government's interest, perhaps a contract similar to the one approved for DMEA 3397, Contract Idm-2722, Ray Ryan, should be considered, unless the applicant will agree to the Washington figures.

M. H. Salsbury
Mining Engineer

cc WMTraver (orig/7 copies)
DMEA 3582
Chron

MHS/cm

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

APR 14 1955

224 New Customhouse
Denver 2, Colorado

April 8, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA-3582 (Uranium), J. Walter Duncan, Jr. (Red Rock claims, et al.), San Juan County, Utah

This replies to your letter of March 23, 1955 on the subject docket concerning estimated costs for drilling.

Enclosed are the original and three copies of a memorandum on a cost revision. We believe that the estimated costs in this memorandum are fair to both the Operator and the Government, and recommend that a short form contract be prepared using these unit costs.

W. M. Traver

W. M. Traver

Enclosures

DMEA
Date Rec'd.
APR 7 1955
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
April 6, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw, Supervising Mining Engineer

Subject: Docket DMEA 3582 (Uranium), J. Walter Duncan, Jr., Red Rock claims, et al., San Juan County, Utah

Enclosed are the original and seven copies of a memorandum which was prepared by M. H. Salsbury in accordance with a request in a letter from the Chairman of the Operating Committee to the Executive Officer, Region III, dated March 23, 1955.

The revised costs per foot for plug-bit drilling are 38 cents higher than those recommended by the Chairman of the Operating Committee and the revised costs per foot for core drilling are 9 cents higher. The estimated direct costs of drilling as used by the engineer in the original report are those which were submitted by the applicant. These costs are considerably lower than the costs of other contracts in force on the Plateau and are considerably less than the prices quoted by an independent contractor. We believe that the estimated costs in this memorandum are fair to both the operator and the Government and recommend that a short form contract be prepared using these unit costs.

John F. Shaw

John F. Shaw

Enclosures

cc 7
DMEA 3582
DMEA Chron

JFS/cm

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
April 5, 1955

Memorandum

To: John F. Shaw, Supervising Mining Engineer

From: M. H. Salsbury

Subject: Docket DMEA 3582 (Uranium), J. Walter Duncan, Jr., Red Rock claims et al, San Juan County, Utah — Supplemental Report on Cost Figures.

The cost estimate in the engineering report on the subject DMEA application was arrived at by using the applicant's estimated direct drilling costs which amounted to $2.63 per foot. Slight revision, including elimination of a charge for insurance on the drill rig, brought the total direct cost to $61,325.10 for 1,784 feet of core and 23,716 feet of non-core drilling or an average for both types of $2.40 per foot. This compared favorably with drilling costs for the same depth holes and proportions of core and non-core drilling, computed at the contract rates in effect at two current Geological Survey projects and considerably less than a bid made the applicant by Minerals Engineering Co.

Comparative Cost of Drilling Holes Averaging 608* Feet Deep

Minerals Engineering Co. Bid	USGS Beaver Mesa	USGS Slick Rock	Applicant's estimate	Bureau of Mines estimate
$3.09	2.70	2.44	2.63	2.40

* non-core depth 565 feet, cored depth 43 feet.

The applicant's cost figures were discussed with his manager, Charles Butler, who stated that the estimate for drilling supplies which would be subject to wear and consumption, was based on past experience with their own rig, and the costs used represented the expected consumption on that basis. That is, during the course of drilling 25,500 feet, the equivalent of 160 10-foot drill rods, 2 diamond drill bits, and so on, would be worn out, but more than this amount would actually be purchased.

The only figure available in the office for estimating diamond bit cost is one of $0.50 per foot, used in an estimate in drilling BX size hole through Dakota and Morrison sediments on another project. The applicant uses a figure of $2,000.00 for diamond bits for 1,784 feet of core drilling in a hole with an outside diameter of 4-1/4 inches or $1.12 per foot. This is probably not excessive, for this size hole, but we do not have data for comparison. The same applies to the cost of $9,000.00 for rock-bits and Hawthorne blades for 23,716 feet of non-core drilling, or $0.38 per foot.

Inasmuch, as the average unit cost per foot as calculated in the Bureau of Mines estimate, based for the most part on the applicant's figures, is less than actual comparable contract prices and also less than the Minerals Engineering Company's bid, the Bureau engineer believes that the applicant's estimate on direct drilling costs are reasonable, with the item for insurance eliminated.

Other items of expense in the applicant's estimate such as geological services and supervision for 18 months, a surveyor and helper for a total of 5 months, and excessive accounting charges were also reduced in the Bureau of Mines estimate. A further reduction can be effected by eliminating the surveyor and helper, and the allowance for contingencies, as suggested by the Washington office.

After consideration, it is believed that the suggested revision on these items is justified. The applicant employs a surveying crew, but no extra charge need be made for their services because the amount allowed for supervision probably more than covers the actual amount of supervision required. As the costs were figured on a 15-month basis or 1,700 feet per month, perhaps the allowance for contingencies is not necessary as drilling rates of up to 2,000 feet per month per rig are common when the major portion of the drilling is non-core. In the revised estimate which follows, the costs figures used originally in the engineering reports are included, except the charges for surveyor and helper, and contingencies:

Revised Cost Estimate for
DMEA 3528
J. Walter Duncan, Jr.
(not segregated as to phases)
Distribution

Item	Non-core drilling (23,716 feet) 93% Direct	Non-core drilling (23,716 feet) 93% Other	Core drilling (1,784 feet) 7% Direct	Core drilling (1,784 feet) 7% Other	Total 25,500 feet Direct	Total 25,500 feet Other
Independent contracts (bull dozing)		$2,153.88		$162.12		$2,316.00

Item	Non-core drilling (23,716 feet) 93% Direct	Other	Core drilling (1,784 feet) 7% Direct	Other	Total 25,500 feet Direct	Other
Labor	$19,747.62		14486.38		21,234.00	
Supervision and technical services		8,523.45		641.55		9,165.00
Drilling supplies	15,751.75		4,088.25		19,840.00	
Other supplies	7,543.46	771.90	567.79	58.10	8,111.25	830.00
Operating equipment	7,319.06	418.50	550.90	31.50	7,869.96	450.00
Miscellaneous (less analyses)						
Repairs to equipment	1,873.95		141.05		2,015.00	
Accounting		1,395.00		105.00		1,500.00
Payroll taxes (8.5%)	1,678.55	724.49	126.34	54.53	1,804.89	779.02
Total	53,914.39	13,987.22	6,960.71	1,052.80	60,875.10	15,040.02

Calculated Cost Per Foot

Non-core drilling (direct)	$\frac{\$53,914.39}{23,716}$	$2.27
Non-core drilling (other)	$\frac{\$13,987.22}{23,716}$	.59
Total non-core drilling		$2.86
Core drilling (direct)	$\frac{\$6,960.71}{1,784}$	$3.90
Core drilling (other)	$\frac{\$1,052.80}{1,784}$	.59
Total core drilling		$4.49

Average cost all drilling per foot

Direct cost	$\frac{\$60,875.10}{25,500}$	$2.39
Other cost	$\frac{\$15,040.02}{25,500}$	$ .59
Total average cost		$2.98

Summary of Estimated Costs

Plug drilling
23,716 feet at $2.86 per foot $67,895.59

Core drilling	
1,784 feet at $4.49 per foot	$8,010.16
Chemical analysis 50 samples at $5.00 each	250.00
Total estimated cost	$76,155.75
Government participation at 75 percent	57,116.81

The revised unit cost of $4.49 per foot for core drilling is only $.09 higher than that suggested by the Washington DMEA office, but the unit cost of $2.86 per foot for non-core drilling is $0.38 higher. If it is Washington's opinion that the revised unit costs quoted are still too high to protect the Government's interest, perhaps a contract similar to the one approved for DMEA 3397, Contract Ida-8722, Ray Ryan, should be considered, unless the applicant will agree to the Washington figures.

M. H. Salsbury
M. H. Salsbury
Mining Engineer

cc WMTraver (orig/7 copies)
DMEA 3582
Chron

MHS/cm

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

224 New Customhouse
Denver 2, Colorado

April 1, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3582 (Uranium), J. Walter Duncan, Jr. (Red Rock claims, et al.), San Juan County, Utah

Enclosed are three sets in sextuplicate of form MF-203, Owner's Consent to Lien, on the White Rock, Red Rock, and Paragon groups of claims requested in your letter of December 10, 1954.

W.M. Traver

W.M. Traver

Enclosures

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

March 24, 1955

Memorandum

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

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Field Examination, DMEA Docket 3582,
Walter Duncan Mining Co., Red Rock Claims,
San Juan County, Utah

I have reviewed the field team report of examination of the Red Rock claims, Walter Duncan Mining Company, DMEA Docket 3582. Joseph O. Hosted, Washington representative of the Atomic Energy Commission, has also reviewed the field team report, and we have discussed its contents.

Mr. Hosted and I concur with the field team that some exploration assistance should be granted the Walter Duncan Mining Company. We suggest that the Phase I drilling plan, as presented, be allowed. Should results of Phase I drilling be favorable, then consideration could be given to additional exploration work.

We are forwarding the field team report of examination to the Chief, Division of Minerals in accordance with the routing slip attached thereto.

John L. Crawford

Copy to: Division of Minerals
Branch of Rare & Precious Metals
J. O. Hosted (2)
J. L. Crawford (2)

IN REPLY REFER TO:

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

March 23, 1955

Re: DMEA-3582
Walter Duncan Mining Company
Red Rock claims et al.
San Juan County, Utah
$92,200(?) - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends a 3 stage plug and core drilling program for the subject claims. All drill holes would collar in the Wingate sandstone and would penetrate the Wingate and Chinle formations. The target bed is a sandstone unit (Moenkopi?), generally 10 to 30 feet thick, that occurs near or at the base of the Chinle.

Primary justification for the project is its proximity to the Continental and other large ore bodies, and the fact that the subject property crosses the trend of these ore bodies. In addition, small deposits are known to the northeast of the property, where the ore bearing zone crops out. Available data suggest that the ore bearing zone increases in thickness (and therefore favorability to ore) to the southwest, where it underlies the subject property.

From a geologic viewpoint the proposed exploration is justified and I recommend that a loan be granted.

I assume that Government assistance can be withdrawn at the conclusion of any stage in the drilling, if earlier results warrant.

R. D. Trace

RDTrace:hlm
G-3/23/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

Used 8045' plug
605' core.
8650'
doubled

Other Costs

772.00 - Bulldozing

30 55.00 - Supervision

300.00 Survey-helper. (no surveyor)

286.00 Taxes.

500.00 Transportation + Fuel + Butane

$ 491300 / 8650 = $0.568 / ft

7026.00 Labor.

6613.00 mat. & sup.

2450.00 fuel

2773.00 equipment — no contingency

2220.00 - Misc.

598.00 Taxes.

21082.00 → $2.277 - Plug
4.55 - Core.

3306.00

½ $17,776.00 → $1.92 - plug
3.84 - core. +
56
4.46

1.92
56
2.48
4.4

Total

17,776.00
49.13
21,689
8,650

	8075' Plug	5905'	9965'
	605	445	285
	8650.	6350	10250
	I	II	III
$12/hr. Bulldozing	672.	528	816
Supervision 5mo.	3000.	4mo 2400	6½ 3900
Help. survey	300.	300	300
	$3972.	3228	5016
50 assays @ 5	250	(30) 180	60 300

$ 0.50

standby Plug +2.25 +.50 = $2.75 ✓

Core -4.00 +.50 = $4.50 ✓ - 600'

plus. assays.

2750
20
55000

We have quoted only the questionable items with reference to Phase I, the same questions ~~as applied~~ apply to the other two phases.

8000
.20
1600.00

All other cost except analyses.

P/o 9

Core

3/14/55 gla

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

224 New Customhouse
Denver 2, Colorado

March 11, 1955

Memorandum

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

From: DMEA Field Team, Region III

Subject: Report of Examination, DMEA Docket 3502 (Uranium) J. Walter Duncan, Jr., dba Walter Duncan Mining Co., Red Rock claims et al., San Juan County, Utah

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

We concur in the recommendations of the field examiners for an exploration project at a total cost of $81,750.46.

Nine copies each of Figures 1, 2, and 3 are attached for possible use in the contract.

In accordance with your letter of December 10, 1954, Owner's Consent to Lien forms will be forwarded the applicant for signatures of the owners. We will forward the signed copies to you when we receive them.

W. M. Traver
W. M. Traver

for D R Macharen
J. W. Harshman

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DMEA
Date Rec'd
MAR 1955

TRANSMITTED

MAR 11 1955

Region III

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
March 9, 1955

RECEIVED
MAR 14 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw, Project Supervisor

Subject: Examination Report, Docket No. DMEA 3582 (Uranium), J. Walter Duncan, Jr., (Red Rock, White Rock, and Paragon claims), San Juan County, Utah.

Enclosed are the original and ten copies of a joint "Summary, Conclusions, and Recommendations" by M. H. Salsbury, mining engineer, and I. E. Mullens, geologist. Also enclosed are the original and ten copies of an engineering report by M. H. Salsbury.

The applicant requested exploration assistance consisting of 25,500 feet of diamond drilling and 45 holes at an estimated cost of $92,200.00. At the suggestion of the examining team, the applicant submitted a revised project consisting of 23,716 feet of plug-bit and 1,784 feet of core drilling at an estimated cost of $81,738.46, Government participation at 75 percent amounts to $61,303.85.

The examining team concluded that a significant amount of uranium would be disclosed as a result of the proposed exploration. It is recommended that the Government enter into a contract with the applicant on the basis of the revised application. The contract would consist of three phases of plug-bit and core drilling. The total amount of the contract would be $81,738.46, and the amount of Government participation at 75 percent would be $61,303.85.

W H King

W. H. King for
John F. Shaw

Enclosures

cc 10 ✓
DMEA 3582
Chron

JFS/cm

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3162, Red Rock, White Rock,

and Paragon Claims

J. Walter Bennett, Jr.

San Juan County, Utah

Examined

M. H. Salsbury, Mining Engineer
Bureau of Mines

T. N. Malleus, Geologist
Geological Survey

March 2, 1955

DMEA 3582

RED ROCK, WHITE ROCK, AND PARAGON CLAIMS
J. WALTER DUNCAN, JR.
SAN JUAN COUNTY, UTAH

Summary, Conclusions, and Recommendations

By M. H. Salisbury
Mining Engineer
Bureau of Mines

T. H. Mallory
Geologist
Geological Survey

DMRA 3642

RED ROCK, WHITE ROCK,
AND PARAGON CLAIMS
J. WALTER DUNCAN, JR.
SAN JUAN COUNTY, UTAH

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By M. R. Salsbury and T. E. Wallace

An application has been made to the Defense Minerals Exploration Administration for Government assistance in exploration of uranium claims in San Juan County, Utah, which are under lease to J. Walter Duncan, Jr., doing business as the Walter Duncan Mining Company, Box 1466, Durango, Colorado. Plug-bit and core drilling exploration is proposed at an estimated cost of $98,200.00, for 2,500 feet of drilling in 45 holes averaging 366 feet in depth. Government participation at 75 percent would be $69,150.00.

A field examination was made on January 25, 1955, and an additional visit was made earlier by Geological Survey personnel.

The claims are on a mesa south of and overlooking Lisbon Valley, 44 miles by road from Monticello, Utah. They consist of two groups leased from different owners. Ownership, based on locations, appears to be valid, subject to agreements effected or to be effected on several claim conflicts.

The property is on the southwest or upthrow side of the Lisbon Valley fault. The basal 50 to 200 feet of the Wingate sandstone is exposed on the claims. This is underlain by the Chinle formation of upper Triassic age which is exposed a few hundred feet north of the property. The Chinle is about 400 feet thick and rests unconformably on the Cutler formation of Permian age.

The known ore deposits of the area are contained in an ill-defined basal member of the Chinle that is probably equivalent to the Mesa Rock member of the Chinle to the west. This member has been explored by rim workings north and northwest of the property, and by drilling in two areas east of the property where two substantial ore bodies have been outlined. One of these, at the Continental Uranium Company's mine just east of the applicant's claims currently is producing an estimated 1,000 tons a month.

While the basal part of the Chinle is not known to contain ore on the applicant's property, significant ore deposits are known to exist on nearby properties, and projection of known ore trends suggests that it merits exploration.

A revised plug-bit and core drilling program in three phases has been submitted by the applicant as the result of a field conference, and the examining team recommends approval of a short-form contract calling for 23,716 feet of plug-bit and 1,784 feet of core drilling at an estimated cost of $81,738.46. Government participation at 75 percent will be $61,303.85.

A small additional acreage known at the Patterson fraction, now controlled by the applicant, should be included in the application to protect the Government's interest.

DMEA 3582

RED ROCK, WHITE ROCK, AND PARAGON CLAIMS
J. WALTER DUNCAN, JR.
SAN JUAN COUNTY, UTAH

Engineering Report

By H. L. Salsbury
Mining Engineer
Bureau of Mines

DMEA 3582

RED ROCK, WHITE ROCK,
AND PARAGON CLAIMS
J. WALTER DUNCAN, JR.
SAN JUAN COUNTY, UTAH

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ILLUSTRATIONS

Figure — Follows page

1. Location Map, J. Walter Duncan, Jr., Red Rock, White Rock, and Paragon claims, (Uranium) San Juan County, Utah..... 2
2. Map showing geologic setting of the Walter Duncan Company mining claims, Lisbon Valley area, San Juan County, Utah..... *
3. Claim Map showing location of proposed drill holes on the Walter Duncan Company mining claims, Lisbon Valley area, San Juan County, Utah..... *

* See figure with geologic report.

DMEA 3582

RED ROCK, WHITE ROCK,
AND PARAGON CLAIMS
J. WALTER DUNCAN, JR.
SAN JUAN COUNTY, UTAH

ENGINEERING REPORT

By M. M. Salsbury

INTRODUCTION

Application has been made to the Defense Minerals Exploration Administration for Government assistance in exploration of uranium claims in San Juan County, Utah, under lease to J. Walter Duncan, Jr., doing business as the Walter Duncan Mining Company, Box 1468, Cortez, Colorado. The applicant proposed a plug-bit and core drilling program at an estimated cost of $92,200.00 for 25,500 feet of drilling in 45 holes averaging 566 feet in depth. Government participation at 75 percent would be $69,150.00.

A field examination was made on January 25, 1955 by M. M. Salsbury representing the Bureau of Mines, accompanied by W. P. Williams of the Geological Survey, and Charles R. Butler, the applicant's manager. The property had been visited previously by field personnel of the Geological Survey.

ACKNOWLEDGMENTS

Data on the property was furnished by the applicant and information on the area was available from Geological Survey sources. Ivan Fisk, field geologist for the Atomic Energy Commission, was consulted by Geological Survey representatives. Production figures on nearby properties were obtained from Commission records.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Red Rock, White Rock, and Paragon claims are in secs. 34 and 35, T. 30 S., R. 25 E., Salt Lake meridian, San Juan County, Utah, (figure 1). The property is at an elevation of about 7,200 feet, occupying a dip-slope surface 300 to 400 feet southwest of an escarpment over looking Lisbon Valley. Erosion has formed only a shallow drainage pattern and most of the claim area is easily accessible.

The climate of the region is hot in summer and moderately severe in winter with low total precipitation, but subject to severe storms of short duration at any season. Year around operations are feasible both underground and on the surface, although surface conditions are not favorable continuously through the winter and early spring.

The property is 22 miles by a good access road running southwest from a road junction with Utah State Highway 160, 22 miles north of Monticello, Utah, or 35 miles south of Moab, Utah, the nearest towns. It is 170 miles over surfaced highways from Grand Junction, Colorado, the nearest major source of mining supplies. There is a uranium ore buying station and treatment plant at Monticello.

There is an ample supply of firewood for domestic use in the pinon-pine cover on the property, and limited supplies of domestic and drilling water are developed in Lisbon Valley within 8 miles of the claims. In dry seasons water must be hauled as much as 15 miles. There are no sources of electric power in the area, and gasoline or diesel-powered equipment is used.

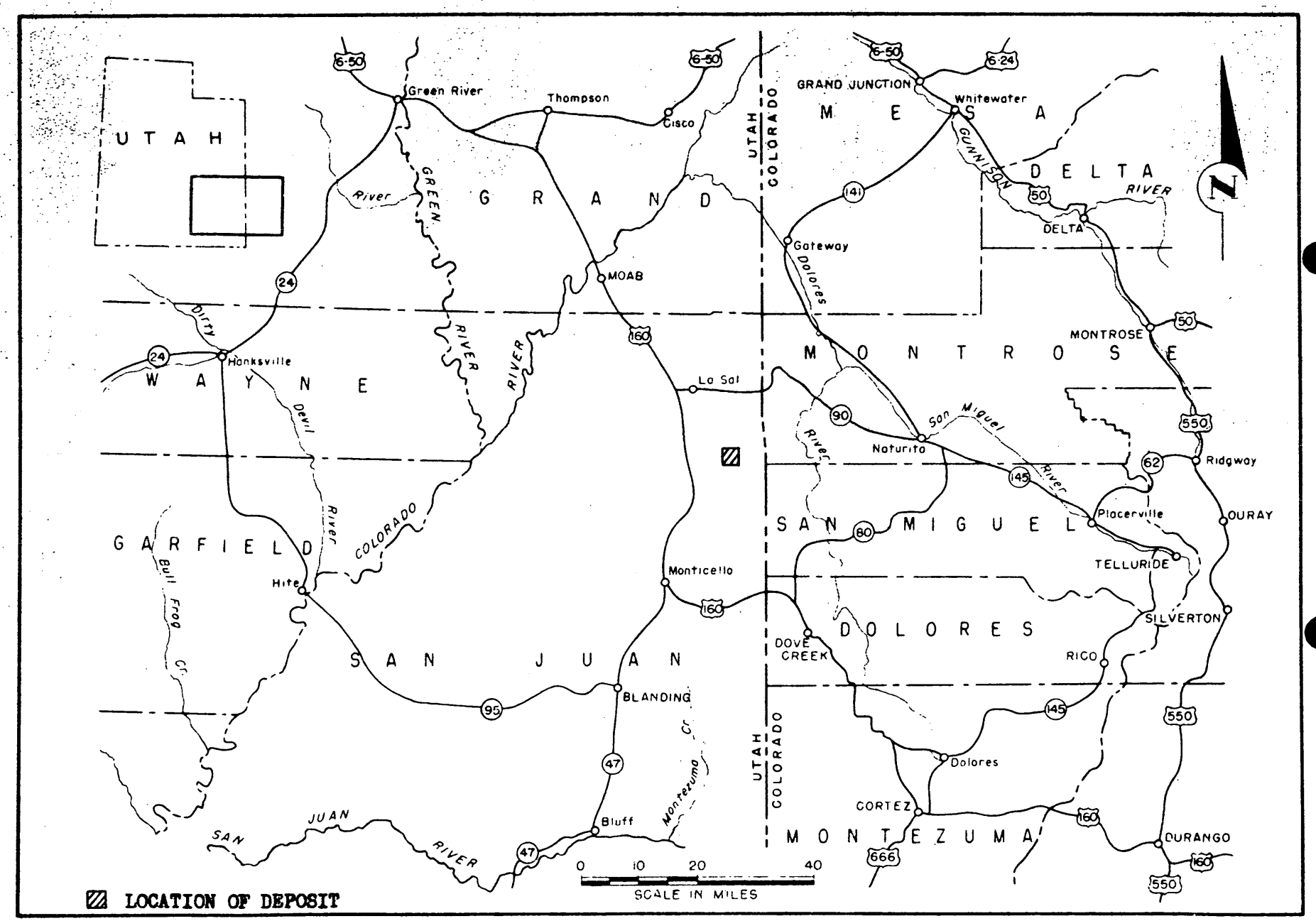


FIGURE 1 - LOCATION MAP, J. WALTER DUNCAN, JR., RED ROCK, WHITE ROCK AND PARAGON CLAIMS (URANIUM), SAN JUAN COUNTY, UTAH. (DMEA 3582)

LABOR AND LIVING CONDITIONS

The district is too remote for personnel to commute conveniently from the nearest towns and house trailers and cabins are provided for employees. There is one cabin on the claims now occupied by a drilling crew, and a house trailer in Lisbon Valley is available for supervisory personnel.

HISTORY, PRODUCTION, AND OWNERSHIP

The Chinle outcrops on the southeast side of Dry Valley were found after World War II, and mining operations were carried on here at the Divide and Service Berry claims. Activity was limited until drilling exploration by the Continental Uranium Company disclosed a substantial ore body below the valley floor, and a mining operation was started which is currently producing about 1,000 tons of ore averaging 0.49 percent U_3O_8 and 0.64 percent V_2O_5 per month. Most of the claims in the area were located in 1953. There has been no recent mining activity in the immediate vicinity other than the Continental Uranium Company's operation.

Production figures on nearby properties were furnished by the Atomic Energy Commission, covering the period 1948 through November 1954 and are as follows:

Mine	Dry tons	U_3O_8 percent	V_2O_5 percent	U_3O_8 pounds	V_2O_5 pounds
Service Berry	395.42	0.25	0.60	2,002.04	4,740.12
Divide and Divide No.1	112.77	0.23	0.77	524.62	1,747.28
Continental Uranium Co.	5,515.35	0.49	0.64	53,711.58	70,971.64

The property which is included in the application consists of 15 claims in secs. 34 and 35, T. 30 S., R. 25 E., Salt Lake meridian,

(figs. 2 and 3 with the geologic report). They are on ground covered by oil and gas leases. Three claims, Paragon Nos. 5, 7 and 8, are part of a group which was located by Quentin S. Bullock, Box 322, Bryan, Texas and date from August 18 and November 6, 1953, when the original locations were made. Lease applications under the Domestic Uranium Program Circular No. 7 were posted on the claims and filed, later withdrawn, and amended locations under Public Law 585 were recorded on November 4, 1954, in Book 283, pages 517 and 518. All location and recording procedures appear to have been in order.

The Walter Duncan Mining Company has a lease from Bullock providing for a 15 percent royalty on all returns except production and haulage allowances, with a payment of $50.00 per acre advance royalty required. The lessees are required to drill at least 1 hole per 15 acres in the first year dating from validation by the Atomic Energy Commission, and do $100.00 per claim assessment work yearly for the life of the lease, which is to run for the period of an Atomic Energy Commission lease under Circular No. 7. A further provision is that all parties agree to execute instruments to achieve full intent of the lease, if validation under Circular No. 7 is not completed.

The remaining twelve claims are part of a larger group which have been leased from S. O. Patterson, Lyle Francis, and Rupert Jenkins of Moab, Utah, and Floyd E. Jenkins and Frank L. Seymour of Grand Junction, Colorado. Mr. Seymour has acted for the other partners in certain matters and it is assumed he has power of attorney from them. However, no statement to this effect has been made.

The locations on the six Red Rock claims, Nos. 1 to 6, date from March 19, 1954 and are recorded in Book 23, pages 26 to 29. The four White Rock claims date from February 18, 1954, when they were recorded in Book 55, pages 493 and 494. The four Red Rock extension claims were located later to cover small areas of open ground which were discovered during a survey of the property. Mr. Butler states that afterwards, it was found that one of the extension claims, Red Rock No. 3 east extension, had not been necessary because there was no open ground where it was staked. The effective acreage of the other three is small.

The lease on the Red Rock and White Rock claims held by the applicants, dates from April 22, 1954, runs for the period of an Atomic Energy Commission lease under Circular No. 7 and is somewhat similar to the lease on the Paragon group. The royalty rate is 15 percent of all payments except haulage and development allowances, and provides for $6,333.33 advance royalty on execution of the lease, and a total advance royalty of $1,000.00 per acre due when the claims are validated by the Atomic Energy Commission. All parties agree to execute instruments to achieve full intent of the lease if validation by the Atomic Energy Commission is not required.

All location and recording procedures on the Red Rock and White Rock claims appear to have been in order, including withdrawals of Atomic Energy Commission lease applications, recorded on December 4, 1954 in Book 243, page 854, and amended locations under Public Law 585, recorded on December 8, 1954, in Book 247, pages 441 to 446, and pages 458 to 460.

All of the claims listed in the DMEA application, as well as a number of other claims, are included in the two leases with the exception of the Red Rock No. 6, and the Red Rock extension claims, which were left out of the original lease from Patterson. Mr. Butler has forwarded to the Bureau of Mines an unsigned copy of an amendment of this lease covering these claims, and states that four copies had been sent to the DMEA Washington office. In the lease from Bullock on the Paragon claims, one claim necessary to the DMEA project, Paragon No. 5, was added later to "Exhibit A" attached to the lease, making six claims in all, but in the body of the lease, the number of claims is stated as five. An amendment to cover this may be advisable.

Agreements to make the provisions of the leases effective are, of course, necessary because dates for fulfilling exploration requirements are tied to the dates of validation of Atomic Energy Commission leases which were never issued. The applicant has forwarded to the DMEA Field Team, Region III, copies of an agreement dated February 2, 1955 and signed by Frank L. Seymour, representing the owners of the Red Rock and White Rock claims, which makes the final date for fulfilling exploration requirements January 1, 1956. A similar agreement by the owner of the Paragon claims has not been made to date, so far as the examining engineer is aware.

There are a number of claim conflicts on the property. Prior locations in the area adjoining the applicant's property on the north, are also owned by Patterson et al, but are leased to another company, The Apache Uranium Corporation. These claims cover the rim exposures of the potential ore horizon.

Patterson has an interest in other ground south and east of the DMEA block which is in partial conflict with claims owned by the National Lead Company. These conflicts are in process of being resolved by compromise, according to Mr. Butler, but do not affect the DMEA block except for a strip of about 13 acres along the south boundary of White Rock Nos. 2 and 3, that, under the proposed agreement, will be relinquished to Patterson, et al. Mr. Butler expects that an agreement to this effect will be signed soon and he will forward the details.

Because of the various conflicts, and inaccurate surveys at the time of location, none of the claims in the proposed project are full size and the effective acreage is, roughly, 100 acres. The area has been resurveyed recently, and a revised description of the proposed project block by metes and bounds, is attached to this report (exhibit A).

It was not feasible to make a comprehensive check of claim locations. Several claim corners and discovery monuments were examined and locations appear to conform with requirements of the Utah mining laws as currently interpreted on the Colorado Plateau.

The priority relationship of the various groups of claims appears to be as follows, listing the oldest locations first:

(1) Pitchblende and Yellowjacket claims north and east of DMEA block (owned by S. O. Patterson, et al, and leased to the Apache Mining Corporation).

(2) Red Rock claims in DMEA block (located March 19, 1953, owned by Patterson, et al).

(3) Western Mines South claims, east of DMEA block (located March 22, 1953, owned by Continental Uranium Corporation). Claims are not shown on map, but conflict with applicant's ground in part and with school section No. 2. Butler states conflict was settled by compromise.

(4) National Lead Company claims south of DMEA block.

(5) Paragon claims in DMEA block (located August 18, 1953 and November 6, 1953, owned by Quentin S. Bullock). Overlap of Paragon No. 7 claim in school section No. 2 is not valid.

(6) White Rock claims in DMEA block (located February 8, 1954, owned by Patterson, et al). Section No. 2, on which Paragon No. 7 and Red Rock No. 6 claims overlap, is a Utah school section under lease to Continental Uranium Company.

Mr. Patterson was contacted at his home in Dry Valley and verified the location of the boundary between the claims leased to the applicant and those leased to the Apache Mining Company, as shown on the applicant's map. He also stated that the applicant was not in default on lease requirements in any respect.

Title to the proposed exploration area appears to be satisfactory, subject to the following requirements:

(1) Verification of an agreement with the National Lead Company.

(2) A statement that the Apache Mining Corporation recognized the boundary between their lease from Patterson and the applicant's lease.

(3) A statement from the Continental Uranium Company on compromise agreements involving the applicant's leases.

A small block of open ground north of the Red Rock No. 6 was recently covered by a new location, the Patterson Fraction claim which has been leased to the applicant, according to a letter dated February 2, 1955, signed by Frank L. Seymour. It has not been included in the proposed exploration block, but it would be advisable to do so to protect exploration planned in the corner of Red Rock No. 6 claim.

Both leases covering the proposed exploration area provide that the lessors will sign Consents to Lien,

DESCRIPTION OF THE DEPOSITS

The known uranium deposits of the area occur in the basal Chinle formation on the southwest flank of the Lisbon Valley anticline and near the Lisbon Valley fault on the southwest or upthrown side (fig. 2 with the geologic report). These characteristics appear to be common to most Lisbon Valley ore bodies, including the Continental Uranium Company operation immediately east of the applicant's property.

The ore occurs in lenticular sandstones and sandstone conglomerates containing an abundance of pyrite and carbonaceous matter, which are found in the basal 40 feet of the Triassic Chinle formation immediately overlying the Cutler formation.

Two substantial deposits elongated along an eastwest trend, have been outlined by drilling, and are being mined on the Continental Uranium Company property in section 36, east of the applicant's ground. One of these is 750 feet by 150 feet in lateral dimension, averaging about 3 feet thick. The average content of ore mined to date is 0.49 percent U_3O_8 and 0.64 percent V_2O_5. The western limit of the second ore body has not been defined yet. The logical projection of this ore body would approach the Paragon and Red Rock claims.

One of the two small deposits on the Chinle outcrop north of the applicant's claims, the Survine Berry mine, was visited by the examining team. Narrow ore lenses a few inches thick and not over drift-width have been followed as far as 100 feet before pinching out. In one tunnel, two small exposures left near the face of the longest drift showed substantial radioactivity, but were not of mineable size. These minor occurrences are not necessarily on a continuation of the Continental Uranium ore trend. They may mark marginal mineralization along the north boundary of an ore trend.

Another deposit has recently been partially blocked out east of the Continental Uranium Company mine. This is on the Williams-Noble claims and is reported to contain in excess of 10,000 tons of ore averaging more than .20 percent U_3O_8. No ore has been mined here to date.

MINEABLE ORE RESERVES

No ore reserves have been developed on the property, or around the Service Entry and Divide workings to the north. The ore reserve of the Continental Uranium Company is reported as being in excess of 75,000 tons which is entirely possible, based on the size of the ore bodies as outlined to date.

PRESENT STATUS

Exploration and Development

No work has been done on the DMEA project block. The applicants have drilled hole EX-2 on ground they control west of the White Rock No. 1, hole EX-4 just north of the Red Rock No. 3, and hole D-5 on school section 2 just south of Paragon No. 7 claim (Fig. 3 with the geologic report). No mineralization was encountered in any hole, but the core of hole EX-1 inspected by the examining team, showed 12 feet of favorable sandstone at the bottom, and hole D-5, drilled for Continental Uranium Company, cut 20 feet of favorable sandstone. Specimens of this rock having abundant carbonaceous content were shown to the examining team.

Eight other holes were drilled east and south of the applicant's property by the Continental Uranium Company in an irregular pattern

presumably on the possible extension of their westerly ore body (fig. 3 with the geologic report). Mr. Butler does not have detailed information on them, but states that, as far as he knows, they were barren. The drill pattern used was not adequate and, if the holes are barren, they would appear to establish only that the possible ore trend is north of the drilled area.

Mining and Milling Equipment and other Facilities

There is a cabin on the property suitable for living quarters for two or three men, which is occupied by the applicant's drill crew. A company-owned house trailer is also available.

The applicant owns a Mayhew drill-rig which can be used for rotary dry or wet drilling, or for diamond core drilling. Service trucks and auxiliary equipment are available, and other mining equipment is now in service at properties being operated by the Walter Duncan Mining Company.

PROJECT PROPOSALS WITH COSTS

The applicant originally proposed a drilling program in two phases calling for 42 holes and 22,300 feet of plug-hit and core drilling at an estimated cost of $98,200.00. Government participation at 75 percent would be $49,150.00. At a field conference with the DMEA examining team, it was pointed out that the proposed drilling was actually in three phases because the applicant's first phase was divided in two parts, the second of which was based on drilling results in the first.

A revised proposal has been submitted superseding paragraph 3(B) of Form MF-183, application for Aid as follows:

Phase 1---Drill 14 exploratory test holes as shown on Plate 2. (Marked "A"). These holes are approximately 400' apart on lines perpendicular to the estimated ore trend. The lines are about 2000' apart. All holes in Phase 1 will be drilled with plug-bits and will be cored for the bottom 40'. Total footage for Phase 1 is 8,460'.

Phase 2---Drill 11 exploratory test holes as shown on Plate 2. (Marked "B"). These holes are approximately 400' apart and will serve to cut the drill lines to 1,000' distances. The location of Phase 2 holes will be subject to changes based on an evaluation of Phase 1 drilling. Total footage for Phase 2 is 6,350'.

Phase 3---Drill approximately 17 offset holes to further explore favorable areas delineated by Phase 1 and Phase 2 drilling. The locations of these holes will be determined by a geologic evaluation of the Phase 1 and 2 drilling. Total footage for Phase 3 is estimated at 10,500'.

On the applicant's revised Plate 2, the hole locations have been moved, so that no hole is closer than 100 feet to any property boundary. Recalculated depths to the potential ore horizon reduced the number of holes in Phase III from 20 to 17, the total drilling footage remaining the same.

The remaining terms concur in the revised plan, with the stipulation that Phases II and III will be dependent on the results of Phase I drilling, and will require prior written authorization by the BMEA Field Team, Region III.

The actual drilling costs in the applicant's estimate are reasonable, but many of the other items are out of proportion. The estimated cost of $2.43 per foot for actual drilling compares well with current Geological Survey contracts, and is somewhat less than the figure used in some recent BMEA contracts, and the bid made by Minerals Engineering Company for the work. Geological services and supervision were computed on an 18-month basis, while actual drilling time was only 13 months. The additional services for surveying estimated to be required for the equivalent of 5 months appear to be excessive.

The applicant plans to use his own equipment, drill crew, and technical personnel. Mr. Butler is a competent geologist, and may devote full time to the project, acting as both geologist and supervisor. This does not affect the cost figures, however, because allowance is made for a geologist and a supervisor each on a half-time basis.

The estimated time for completion is 15 months, or at the rate of about 1,700 feet of drilling per month. An allowance for contingencies is made to cover unforeseen costs in the proposed work. In the case of a project where the drilling is to be done by a contractor, this is not usually done, as it is assumed that the contract price will include this item. Following is a detailed estimate:

Phase I

(estimated time for completion - 5 months)

<u>Independent contracts</u>

Move in and move out bulldozer	$ 100.00		
Bulldozing access roads and 14 drill sites - 56 hours at $12.00 per hour	672.00		
Total independent contracts			$ 772.00

<u>Labor, supervision, and technical services</u>

Labor			
Driller, wages and footage bonus - 5 months at $750.00 per month	3,750.00		
Driller's helper at $1.50 per hour, time and one-half over 40 hours per week - 21 weeks at $78.00 per week	1,638.00		
Water truck driver - 21 weeks at $78.00 per week	1,638.00		
Total labor		7,026.00	
Supervision			
Project supervisor, one-half time - 5 months at $622.00 per month	1,555.00		
Total supervision		1,555.00	
Technical services			
Geologist, one-half time - 5 months at $600.00 per month	1,500.00		

Surveyor, equivalent of one month - at $600.00 per month	$ 600.00		
Surveyor's helper equivalent of one month at $300.00 per month	300.00		
Total technical services		2,400.00	
Total labor, supervision and technical services			$10,981.00

Operating materials and supplies

Drilling supplies as follows estimated for entire project (list in applicant's estimate)			
160 - 2 3/8" OD by 10-foot drill pipe - at $37.50 per foot	6,000.00		
2 - 4 3/4" diamond drill bits	2,000.00		
3 - 4 3/4" Hawthorne adapters	175.00		
3 - 4 3/4" rock-bit adapters	90.00		
75 - 4 3/4" Hawthorne blades	1,000.00		
150 - 4 3/4" rock-bits	3,000.00		
3 - core barrel assemblies	1,600.00		
150 sacks silvocel at $4.00	600.00		
150 sacks drilling mud at $2.50	375.00		
33.33 per cent of	19,840.00	= 6,613.33	
Fuel			
Gasoline, oil and replacements on water truck - 125 days at $10.00 per day	1,250.00		
Gasoline and oil for drilling - 125 days at $8.00 per day	1,000.00		
Gasoline and oil for 3-KVA generator plant - 5 months at $40.00 per month	200.00		
Gas, oil, and repairs on 1/2-ton pickup - 5 months at $50.00 per month	250.00		
Gas, oil, and repairs on 3/4-ton pickup - 5 months at $50.00 per month	250.00		
Butane for heating - 5 months	66.66		
Total operating materials and supplies			9,629.99

Operating equipment

Purchased - none
Rented - none
Depreciation - on 60-month basis

Item	New cost
1954 - R192 International truck	5,497.79
Mayhew model 1000 drill-rig	16,283.55
Diamond drill-bit handling tools	540.00
1954 - F750 Ford truck with tank	5,223.42
1952 - 3/4-ton pickup	1,700.00
1954 - 1/2-ton pickup	1,800.00
O'Keefe and Merrit 3-KVA generator set	535.00
House trailer	950.00

600 - A Babbel counter	$ 350.00		
2 700-foot probes	400.00		
Total cost equipment	33,279.76		
Depreciation per month - 60-month basis	554.66		
Depreciation for 5 months		2,773.30	
Total operating equipment			$ 2,773.30

Initial rehabilitation and repairs

None
(proposed repairs to cabin have already been done).

New buildings and improvements

None

Miscellaneous

Repairs to equipment			
Welding materials for drill rig maintenance	115.00		
One-third of cost of drill equipment maintenance as per applicant's list - 1/3 of $2,015.00	671.67		
Total repairs to equipment		786.67	
Sampling and analysis			
50 chemical analyses for U_3O_8, V_2O_5, and $CaCO_3$ at $5.00 each	250.00		
Total sampling and analyses		250.00	
Accounting			
5 months at $100.00 per month	500.00		
Total accounting		500.00	
Payroll taxes and insurance at 8.5 percent of $10,981.00	933.38		
Total payroll taxes and insurance		933.38	
Total miscellaneous			2,470.05

Contingencies

Delays caused by weather or breakdowns, possible expense caused by loss of drill rods, bits, or casing, etc. - 5 percent of $26,626.34	1,331.32		
Total contingencies		1,331.32	1,331.32
Total Phase I			$27,957.66

Distribution of Phase I costs

Plug drilling (8,045 feet)	24,832.18		
Core drilling (605 feet)	2,875.48		
Chemical analyses (50 samples)	250.00		$27,957.66
Calculated cost per feet - plug drilling	24,832.18 / 8,045	or $3.09	
Calculated cost per feet - core drilling	2,875.48 / 605	or $4.75	

Phase II

(estimated time for completion - 3 3/4 months)

Independent contracts

Move in and move out bulldozer	$ 100.00		
Bulldozing 11 drill sites - 44 hours at $12.00 per hour	528.00		
Total independent contracts			$ 628.00

Labor, supervision and technical services

Labor - at rates in phase I			
Driller - 3 3/4 months at $750.00 per month	2,812.50		
Driller's helper - 16 weeks at $78.00 per week	1,248.00		
Water truck driver - 16 weeks at $78.00 per week	1,248.00		
Total labor		5,308.50	
Supervision			
Project supervisor - one-half time - 3 3/4 months at $622.00 per month	1,166.25		
Total supervision		1,166.25	
Technical services			
Geologist - one-half time - 3 3/4 months at $600.00 per month	1,125.00		
Surveyor, equivalent of 3/4 month - at $600.00 per month	450.00		
Surveyor's helper, equivalent of 3/4 month - at $300.00 per month	225.00		
Total technical services		1,800.00	
Total labor, supervision, and technical services			8,274.75

Operating materials and supplies

Drilling supplies - 25 percent of total listed supplies in phase I - 25 percent of $19,840.00	4,960.00		
Fuel			
Gasoline, oil, and replacements on water truck for 94 days at $10.00 per day	940.00		
Gasoline and oil for 3-KVA generator plant - 3 3/4 months at $40.00 per month	161.25		
Gasoline and oil for drill rig - 94 days at $8.00 per day	752.00		
Gas, oil, and replacements on 1 3/4-ton pickup - 3 3/4 months at $50.00 per month and also for 1 1/2-ton pickup	375.00		
Butane for heating - 3 3/4 months	50.00		
Total operating materials and supplies			7,238.25

Operating equipment

Purchased - none
Rental - none
Depreciation
Depreciation for 3 3/4 months at
$554.66 per month as per list in Phase I 2,079.98
Total operating equipment $ 2,079.98

Initial rehabilitation and repairs

None

New buildings and improvements

None

Miscellaneous

Repairs to equipment
Welding materials for drill rig maintenance 75.00
Pro-rata share of cost of services and supplies for maintenance of drilling equipment as per applicant's estimate 25 percent of $2,015.00 503.75
Total repairs to equipment 578.75
Sampling and analysis
36 chemical analysis for V_3O_8, V_2O_5, and $CaCO_3$ at $5.00 each 180.00
Total sampling and analysis 180.00
Accounting
3 3/4 months at $100.00 per month 375.00
Total accounting 375.00
Payroll taxes and insurance at 8.5 percent of $8,274.75 703.35
Total payroll taxes and insurance 703.35
Total miscellaneous 1,837.10

Contingencies

Delays caused by weather or breakdowns, extra expense caused by loss of drill rods, bits, or casing, etc., 5 percent of $20,058.08 1,002.90
Total contingencies 1,002.90
Total Phase II $21,060.98

Distribution of Phase II costs

Plug drilling (5,906 feet) 18,700.70
Core drilling (444 feet) 2,180.28
Chemical analyses (36 samples) 180.00 $21,060.98

Calculated cost per feet - plug drilling 18,700.70 / 5,906 or $3.17

Calculated cost per feet - core drilling 2,180.28 / 444 or $4.91

Phase III

(estimated time for completion - 6 1/4 months)

Independent contracts

Move in and move out bulldozer	$ 100.00		
Bulldozing 17 drill sites - 68 hours at $12.00 per hour	816.00		
Total independent contracts			$ 916.00

Labor, supervision, and technical services

Labor - at rates in previous phases			
Driller - 6 1/4 months at $750.00 per month	4,687.50		
Driller's helper - 27 weeks at $78.00 per week	2,106.00		
Water truck driver - 27 weeks at $78.00 per week	2,106.00		
Total labor		8,899.50	
Supervision			
Project supervisor, one-half time - 6 1/4 months at $622.00 per month	1,943.75		
Total supervision		1,943.75	
Technical services			
Geologist, one-half time - 6 1/4 months at $600.00 per month	1,875.00		
Surveyor, equivalent of 1 1/4 months - at $600.00 per month	750.00		
Surveyor's helper, equivalent of 1 1/4 months at $300.00 per month	325.00		
Total technical services		2,950.00	
Total labor, supervision, and technical services			$11,849.50

Operating materials and supplies

Drilling supplies - 41.67 percent of cost of list of supplies in phase I -- 41.67 percent of $19,840.00	8,267.33		
Fuel			
Gasoline, oil and replacements on water truck - 156 days at $10.00 per day	1,560.00		
Gasoline and oil for drill rig - 156 days at $8.00 per day	1,248.00		
Gasoline and oil for 3-KVA generator plant - 6 1/4 months at $40.00 per month	250.00		
Gas, oil, and replacements on 1 1/2-ton pickup and 1 3/4-ton pickup for 6 1/4 months at $40.00 per month each	625.00		
Butane for heating - 6 1/4 months	88.34		
Total operating materials and supplies			$12,038.67

Operating equipment

Purchased - none			
Rented - none			
Depreciation			
Depreciation of equipment listed in Phase I for 6 1/4 months at $554.66 per month	$ 3,466.33		
Total depreciation		3,466.33	
Total operating equipment			$ 3,466.33

Initial rehabilitation and repairs

None

New buildings and improvements

None

Miscellaneous

Repairs to equipment			
Welding materials for drill maintenance	110.00		
Pro-rata share of cost of services and supplies for maintenance of drilling equipment as per applicant's estimate - 41.67 percent of $2,015.00	839.65		
Total repairs to equipment		949.65	
Sampling and analysis			
60 chemical analyses for U_3O_8, V_2O_5, and $CaCO_3$ at $5.00 each	300.00		
Total sampling and analysis		300.00	
Accounting			
6 1/4 months at $100.00 per month	625.00		
Total accounting		625.00	
Payroll taxes and insurance 8.5 percent of $11,849.50	1,007.21		
Total payroll taxes and insurance		1,007.21	
Total miscellaneous			2,881.86

Contingencies

Delays caused by weather or breakdowns, extra expense caused by loss of drill rods, bits, casing, etc., 5 percent of $31,152.36	1,557.62	
Total contingencies		1,557.62
Total Phase III		$32,709.98

Distribution of Phase III costs

Plug drilling (9,765 feet)	$28,943.60		
Core drilling (735 feet)	3,466.38		
Chemical analyses (60 samples)	300.00		$32,709.98
Calculated cost per foot - plug drilling	$\frac{28,943.60}{9,765}$	or $2.96	
Calculated cost per foot - core drilling	$\frac{3,466.38}{735}$	or $4.72	

SUMMARY OF ESTIMATED COSTS

Distribution - Phases

Item	Phase I drilling Plug 93 percent 8,045 feet	Phase I drilling Core 7 percent 605 feet	Phase II drilling Plug 93 percent 5,906 feet	Phase II drilling Core 7 percent 444 feet	Phase III drilling Plug 93 percent 9,765 feet	Phase III drilling Core 7 percent 735 feet	Totals
1. Independent contracts	$ 717.96	54.04	584.04	43.96	851.88	64.12	2,31[illegible].00
2. Labor, supervision and technical services	10,212.33	768.67	7,695.52	579.23	11,020.04	829.46	31,105.25
3. Operating materials and supplies (general)	4,967.74	373.92	3,740.46	281.54	6,210.77	467.48	
plug drilling supplies	3,030.30		2,272.50		3,787.50		
core drilling supplies		1,258.33		943.75		1,572.92	
4. Operating equipment	2,579.17	194.13	1,934.38	145.60	3,223.69	242.64	8,319.61
5. Miscellaneous (less chemical analyses)	2,086.85	133.20	1,541.10	116.00	2,401.13	180.73	6,459.01
6. Contingencies	1,238.13	93.19	932.70	70.20	1,448.59	109.03	3,891.84
Totals	$24,832.18	2,875.48	18,700.70	2,180.28	28,943.60	3,466.38	81,728.62

	Phase I Plug	Phase I Core	Phase II Plug	Phase II Core	Phase III Plug	Phase III Core
Calculated cost per foot - (less chemical analyses)	$3.09	$4.75	$3.17	$4.91	$2.96	$4.72

* Optimum or max program was the max schedules was used

Total cost based on calculated footage costs:

Phase I

3,045 feet plug drilling at $3.09 per foot -	$24,859.05	
605 feet core drilling at $4.75 per foot -	2,873.75	
Chemical analyses - 50 samples at $5.00 each	250.00	
Total Phase I		$28,904.40

Phase II

5,906 feet plug drilling at $3.17 per foot -	$18,722.02	
444 feet core drilling at $4.91 per foot -	2,180.04	
Chemical analyses - 36 samples at $5.00 each	180.00	
Total Phase II		21,082.06

Phase III

9,765 feet plug drilling at $2.96 per foot -	$28,904.40	
735 feet core drilling at $4.72 per foot -	3,469.20	
Chemical analyses - 60 samples at $5.00 each	300.00	
Total Phase III		32,673.60
Total for project		$1,738.46
Government participation at 75 percent		$41,303.85

PROPOSED FINANCING

The applicant proposes to furnish his share of the exploration cost in equipment, services, and cash. He offers financial statements for the Walter Duncan Mining Company and the Walter Duncan Drilling Company as proof of financial worth and gives three bank references.

CONCLUSIONS

The proposed exploration project is well located on a possible westerly extension of an ore trend that has been established by exploration and development of a substantial ore body, the western limit of which, as determined so far by drilling, is 1,200 feet from the project boundary. The possible occurrence of significant ore bodies on the applicant's property is based on this relationship. Ore bodies of

the type mined on the rim to the north are not of sufficient size or grade to justify the required exploration.

The applicant has an excellent operating record and performance under a previous DMEA contract was completely satisfactory.

A visit to the applicant's drill rig, which was in use on an adjoining property, left a very favorable impression of a very satisfactory operation with the examining team and the applicant's personnel are believed to be fully competent.

The estimated cost of the project, if carried through to completion, amounts to about $6,300.00 per claim, not counting the smaller fractional claims. This figure is high, inasmuch as some of the claims are full size, but not out of line, considering the depth to the ore horizon.

Following is an estimate of the production which would be necessary to return the cost of exploration and development, based on figures furnished by the Atomic Energy Commission. An operator could mine an ore body here through a 600-foot shaft, or through an incline driven from the rim, which would be a minimum of 1,000 feet long to reach the boundary of the property, and would require a right-of-way through other property. The following costs are based on a shaft operation:

Estimated return from ore averaging 0.40 percent U_3O_8 and 0.50 percent V_2O_5.

Gross return, not including initial production bonus or haulage allowance per ton		- $33.10
Costs	Per ton	
Mining charge	$22.00	
DMEA royalty	1.95	
Owner's royalty	5.12	
Total		29.07
Balance to apply to investment (rounded to)		$ 9.00

Initial investment:

Camp	$ 6,000.00
Machinery	10,000.00
Hoist, headframe, and ore bin	14,000.00
Shaft sinking (600 feet) at $175.00 per foot	105,000.00
Ventilation drill holes	20,000.00
Applicant's share of exploration cost rounded to	20,000.00
Total	$175,000.00
Initial production bonus on one group of claims (less royalties)	28,000.00
Balance to be paid from other ore returns	$147,000.00

Tonnage to return operator's investment - $\frac{\$147,000.00}{9.00}$ or 16,333 tons

Government's share of exploration cost rounded to	$ 61,500.00
Royalty on initial production bonus	1,750.00
Balance to be paid from royalty on other ore returns at the rate of $1.95 per ton	$ 59,750.00

Tonnage to return Government's expenditure - $\frac{\$59,750.00}{1.95}$ or 30,641 tons

There is a reasonable possibility of finding this tonnage on the applicant's property.

Because of the shape and position of the project block, it is possible that a large part of the ore which might be found by Government-assisted exploration would extend into adjoining ground in which the Government has no interest. Another possibility is that the ore trend might miss the project block completely. For these reasons, inclusion of adjoining ground in the project would be advantageous both to the applicant and the Government. Mr. Butler states that they have considered making such an arrangement with the National Lead Company and the Apache Mining Company, but were deterred by the concessions which would have been

necessary to make. While addition of the adjoining ground, at least, would enhance the value of the project, it is not absolutely essential, except for the Patterson fraction which should be added.

RECOMMENDATIONS

On the assumption that only the Patterson fraction will be added to the DMEA block, it is recommended that a short-form contract calling for 23,716 feet of plug-bit drilling and 1,784 feet of core drilling in three phases be approved at a total estimated cost of $81,738.46. Government participation at 75 percent would be $61,303.85. Although the applicant's estimate did not segregate plug-bit and core drilling costs, a summary giving them separately is included in this report for use in preparing a contract if desired.

It is recommended that the following provisions be made part of the contract:

Description of the Work

(Refer to figure 3 with the geologic report which is suggested for attachment to the contract).

Phase I - A maximum of 14 holes and 8,650 feet of plug-bit and and core drilling in fences 2,000 feet apart at locations marked "A" shown on figure 3. Holes are to be on a minimum of 400-foot centers and no hole is to be drilled closer than 150 feet to any hole previously drilled on the adjoining property.

Phase II - A maximum of 11 holes and 6,350 feet of plug-bit and core drilling in fences to be located at intermediate points between rows of holes in Stage I. Holes are to be on a minimum of 400-foot centers and no hole is to be closer than 400 feet to any previously drilled hole. The tentative locations of the holes are marked "B" on figure 3. Hole locations will be based on the results of Stage I, must be satisfactory to the Government and require prior written authorization by the DMEA Field Team, Region III.

Phase III - A maximum of 17 holes and 10,500 feet of plug-bit and core drilling in offset holes to explore further any

mineralization or favorable geologic conditions found in Stages I or II. Holes are to be on a minimum of 100-foot centers and no hole is to be closer than 100 feet to any previously drilled hole. Hole locations are to be satisfactory to the Government and prior written authorization by the DMEA Field Team, Region III will be required.

Drilling Summary

Computed Drilling Depths

Phase I

Hole location coordinates N	E	Depth of hole (in feet) plugged	cored	Total
59,770	137,635	643	40	683
59,750	136,135	703	40	743
60,055	136,280	645	40	685
60,355	136,425	587	40	627
60,655	136,555	523	40	563
61,240	134,625	590	40	630
61,480	134,750	543	40	583
61,730	134,880	514	40	554
61,290	132,420	635	40	675
61,590	132,600	590	40	630
61,870	132,780	530	40	570
62,130	132,940	480	40	520
61,830	130,690	535	40	575
62,115	130,900	465	40	505
Estimated footage 14 holes		7,983	560	8,543
Maximum (figure for contract)		8,045	605	8,650
Average depth		$\frac{8,543}{14}$ = 610.2 feet		

Phase II

59,775	137,050	661	40	701
60,100	137,255	590	40	630
61,015	135,585	589	40	629
61,250	135,755	501	40	541
61,265	133,550	567	40	607
61,530	133,685	518	40	558
61,795	133,815	475	40	515
62,065	133,950	450	40	490
61,505	131,380	540	40	580
61,860	131,520	485	40	525
62,115	131,900	470	40	510
Estimated footage 11 holes		5,846	440	6,286
Maximum footages for contract		5,906	444	6,350
Average depth		$\frac{6,286}{11}$ = 571.5 feet		

Phase III

Seventeen holes averaging 617.5 feet deep or a total of 9,765 feet of plug-bit drilling and 735 feet of core drilling.

Note: Estimated drilling depths in this summary are based on a transit survey by the applicant, using accurate collar elevations, and drilling depths computed on the basis of the best available information on the depth and attitude of the potential ore horizon. Actual drilling depths may vary, and the maximum footage allowed provides for 171 feet more than the calculated total.

Holes will be plug drilled to a point approximately 40 feet above the base of the Chinle formation and cored the remaining distance through the Chinle formation, holes being bottomed in and penetrating a maximum of 5 feet of the underlying Cutler formation.

Cutting samples representing 10-foot plug-bit drilling intervals, or sludge samples from core drilling corresponding to each coring interval, will be taken, if required by the Geological Survey representative, but may be discarded after inspection by him, except that sludge samples corresponding to any coring interval in which core recovery was unsatisfactory will be retained.

All core will be marked and stored in core boxes until it can be examined and released by a DMEA representative, after which all but mineralized portions may be discarded.

Sections of the core in which uranium and/or vanadium mineralization is indicated radiometrically or visually will be split and one-half sampled in intervals representing not more than 1 foot of core, to be analyzed chemically for U_3O_8 and V_2O_5 and $CaCO_3$. The other half will

be delivered to the nearest Geological Survey office for the use of the Government. Analysis of 50 samples in Stage I, 36 samples in Stage II, and 60 samples in Stage III will be allowed.

A project engineer-geologist and a supervisor-geologist will be employed, while drilling is in progress, each on a half-time basis. Their services will include daily examination and logging of the drill core, hole probing with company-owned instruments, determination of drilling depths, and preparation of progress reports and maps.

A surveyor and helper will be employed a maximum of 3 months total time for necessary surveying, including location of drill sites.

No uncompleted holes will be paid for, and no hole should be started unless there remains enough footage to complete it without exceeding contract maximums.

Claims for reimbursement will be supported by certified drill and geologic logs, and certified copies of analytical returns.

While inclusion of additional ground in the project would be desirable, it appears that to do so would involve complications into which the applicant is reluctant to enter. The small acreage covered by the Patterson fraction can and should be added to the project. This would not require any changes in Phase I drilling plans.

Copies of some or all of the following instruments may be considered necessary by the DMRA legal division.

(1) Statement from Quentin S. Bullock setting a definite date for completion of required exploration. (Similar statement has been received from Patterson, et al).

(2) Consents to Lien for both groups of claims.

(3) Statement including effective acreage of Patterson fraction in the DMEA project.

(4) Power of Attorney's from other owners of the Red Rock and White Rock claims designating Frank L. Seymour as their agent. (This may have been forwarded).

(5) Copies of compromise agreements or statements otherwise recognizing the applicant's boundaries from the National Lead Company, Apache Uranium Corporation, and the Continental Uranium Company.

EXHIBIT "A"

Amended Legal Description of DMEA Block

This block is in Sections 34 and 35, T. 30 S., R. 25 E., SLM, San Juan County, Utah.

Beginning at a point 1200' West of the SE corner of Section 35, thence N1°E155' to the NE corner of Red Rock #6, thence N49°W1185' to the NE corner of Red Rock #5, thence S90°N57°32'W to the SE corner of Pitchblende Extension #5, thence N53°42'W 1275', thence N56°53'W360' to the SE corner of Pitchblende Extension #4, thence N70°13'W 1330' to the SE corner of Pitchblende Extension #3, thence N84°30'W900' to the SE corner of Pitchblende Extension #2, thence 1300' West to the SE corner of Pitchblende Extension #1, thence 742' West, thence S68°14'W425' to the SW corner of Service Berry #3, thence S27°31'E950', thence N87°43'E 428' to the SE corner of White Rock #1, thence S5°57'W258' to the SW corner of White Rock #2, thence S77°16'E1611' to the SW corner of White Rock #3, thence N88°46'E1464' to the SW corner of White Rock #4, thence East 50', thence south 20', thence West 1060', thence S89°30'E710', thence S87°30'W260' to the NW corner of Paragon #5, thence S49°15'E590' to the SW corner of Paragon #8, thence S6°15'E748' along the west end lines of Paragon 5 and Paragon 7 to the Section Line between Section 35 and Section 2, thence East 1700' to point of beginning.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

TRANSMITTED
MAR 11 1955

Defense Minerals Exploration Administration

March 4, 1955

DMEA
Date Rec'd
MAR 7 1955
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3582 (uranium), Walter Duncan Mining Company, Red Rock claims, et al, San Juan County, Utah

Enclosed are 10 copies of a geologic report by G. W. Weir, T. E. Mullens, and W. F. Williams, U. S. Geological Survey, covering the above subject application.

The property is located on the southwestern flank of the Lisbon Valley anticline about one-half mile southwest of the Lisbon Valley fault. Recent exploration in the area has resulted in the discovery of very significant deposits of uranium ore in the basal part of the Chinle formation. These deposits are described in the geologic report.

Although no outcrops of the ore bearing horizon exist on the property, very convincing evidence is presented in the report to support the conclusion that exploration is warranted on the subject property.

The program recommended by the field examiners is the same as the revised program submitted by the applicant; it appears to be well adapted to the known geologic conditions. Many of the proposed holes are located within 100 feet of the boundaries of the area included in the application. Should this distance be considered too small to adequately protect the Government's interest in any ore discovered by drilling, the proposed locations of those holes can be changed slightly without effecting adversely the character of the proposed exploration program.

Nine extra copies of each of three illustrations from the geologic report are enclosed also.

The Survey copy of the brochure will be forwarded when received from the field.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (37)

TRANSMITTED

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
COLORADO PLATEAU DISTRICT
P. O. BOX 360
GRAND JUNCTION, COLORADO

MAR 11 1955

March 2, 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: W. P. Williams

Subject: DMEA 3582, Walter Duncan Mining Company, Red Rock claims, et al, San Juan County, Utah

Enclosed are 11 copies of a geologic report and accompanying maps by G. W. Weir, T. E. Mullens, and W. P. Williams, covering the subject application. The brochure is enclosed herewith.

As the property is adjacent to known mineralized and ore-bearing ground in an area of large uranium deposits, and because projected trends of known ore-bearing ground suggest that much of the property may be favorable for ore, the examining geologists recommend that a DMEA loan to explore the property be granted. The exploration program recommended by the examining geologists is the same as the revised program submitted by the applicant.

I concur with the recommendation submitted in the geologic report.

The application was discussed with Mr. Ivan Fisk, AEC field geologist in the Lisbon Valley area, and Mr. Fisk concurs with the recommendation made in the geologic report.

We are enclosing 9 extra copies of the maps accompanying the report.

W. P. Williams

W. P. Williams

Enclosures

UNITED STATES DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3582, Walter Duncan Mining Company, Red Rock claims, et al
San Juan County, Utah

Uranium

Geologic report

by

G. W. Weir, T. E. Mullens, and W. P. Williams
U. S. Geological Survey

March 1, 1955

INTRODUCTION AND SUMMARY

The Walter Duncan Mining Company, Cortez, Colo., has applied to the Defense Minerals Exploration Administration for a loan to explore the basal part of the Chinle formation on the Red Rock, Red Rock Extension, White Rock and Paragon claims in secs. 34 and 35, T. 30 S., R. 25 E., San Juan County, Utah (fig. 1). The property was examined on January 25, 1955, by Mr. M. H. Salsbury, U. S. Bureau of Mines, and W. P. Williams, U. S. Geological Survey, accompanied by Mr. C. H. Butler, acting for the applicants. The application was discussed with Mr. Ivan Fisk, field geologist of the Atomic Energy Commission.

The applicant proposes a drilling program in three stages (amended from original proposal. See memorandum from W. P. Williams to E. N. Harshman dated February 10, 1955). Stage 1 consists of 14 holes about 400 feet apart in fences about 2,000 feet apart, for a total of 8,650 feet. Stage 2 drilling will total 6,350 feet in 11 holes spaced about 400 feet apart and will be drilled midway between stage 1 fences. The exact location of stage 2 holes is dependent on evaluation of stage 1 drilling. Stage 3 drilling will consist of about 10,500 feet in 17 holes to further delineate any favorable ground found in stages 1 and 2. The applicants complete program is estimated to require about 25,5000 feet of drilling in 42 holes at a cost of $92,200.

The ore-bearing bed is not exposed on the property and the operator has not demonstrated that any part of the property is underlain by mineralized ground. However, because the property is adjacent to known mineralized and ore-bearing ground in an area of known large uranium deposits and because projected trends of known ore-bearing ground suggest that much of the property may be favorable for ore, the examining team recommends that a loan be granted for exploration of the property. The examining team recommends that the applicant's exploration program be approved. Mr. Salsbury, Bureau of Mines, will submit a separate report on the engineering and cost aspects of the proposed program.

GEOLOGY

The general geologic setting of the Walter Duncan Mining Company claims is shown in figure 2.

Stratigraphy.-- Only the basal 50 to 200 feet of the Wingate sandstone of Upper Triassic age is exposed on the property. The Wingate is a massive cross-bedded, fine-grained, orange sandstone. Both younger and older rocks are exposed on nearby claims. A generalized stratigraphic section of the Lisbon Valley area is given in table 1.

The Chinle formation of Upper Triassic age is the chief ore-bearing formation in the Lisbon Valley mining area. It is exposed a few hundred feet northeast of the property. The Chinle is

about 400 feet thick and rests unconformably on the Cutler formation of Permian age. It consists of red and green mudstone and red and gray sandstone, siltstone, and conglomeratic sandstone. Uranium ore deposits are known to occur in an ill-defined basal member of the Chinle that is probably equivalent to the Moss Back member of the Chinle to the west. The basal member consists of gray and greenish-gray sandstone, sandy siltstone and conglomeratic sandstone with green mudstone. The basal member, here called the lower Chinle, ranges from a knife-edge to more than 30 feet along the outcrop near the company claims. The Chinle formation and especially the basal member are believed to thicken southwesterly away from the Lisbon Valley salt anticline.

The Cutler formation of Permian age, which underlies the Chinle, consists mainly of red, purple, and brown mudstone and red, purple and white sandstone and conglomerate. The Chinle-Cutler contact can generally be recognized in drill core by the first appearance of these lithologic characteristics below the contrasting green mudstone and gray sandstone of the lower Chinle.

Structure.--The company claims lie on the southwest flank of the Lisbon Valley anticline about one-half mile southwest of the Lisbon Valley fault. The Lisbon Valley anticline is believed to be underlain by a thickened roll of salt in the Paradox member of the Hermosa formation of Pennsylvanian age. The anticline probably existed as a structural and topographic high since the late Paleozoic; probably all Mesozoic formations are thinner near the axis of the structure. The beds on the property are estimated to strike about N. 85° W and dip about 10° SW.

The Lisbon Valley fault is a normal fault and has a stratigraphic throw of more than 4,000 feet. Northeast and east of the property the Lisbon Valley fault splits into a number of smaller faults. No faults are known to exist on the company claims, but the Wingate sandstone shows a well-developed set of vertical joints that trends about N. 75° W., about parallel with the trend of the structural contours of the claim area.

ORE DEPOSITS

The basal part of the Chinle formation that the applicant proposes to explore is not known to contain mineralized material on the company property. Significant ore deposits known to exist on nearby properties (see figs. 2 and 3), however, suggest that the Walter Duncan Mining Company claims merit exploration. These neighboring deposits include the original producing properties in the Chinle formation in the Lisbon Valley area - the recently developed Continental Uranium School Section 36 mine, and the recently discovered Williams-Noble deposit. Because the Walter Duncan property must be evaluated on the basis of neighboring properties, these deposits are described briefly below.

The divide claims were mined as early as 1943. The workings consist of a few small trenches and open cuts. The ore consists of sandstone impregnated with gray vanadium mica and a yellow uranium mineral, probably of the carnotite group. The lower Chinle is here only about 10 feet thick and consists of cross-bedded brownish gray sandstone and conglomeratic sandstone. Total production is small, probably less than 200 tons with an average grade of about 0.2 percent U_3O_8. The property is now idle and has no significant reserves.

The Service Berry mine was developed in 1948. The workings consist of several small open cuts and three adits with small side stopes and rooms. The ore is similar to that of the Divide claims, except that vanadium minerals appear less abundant and thus the mineralized rock is difficult to outline visually. The lower Chinle is about 15 to 20 feet thick. Total production is small, not exceeding 500 tons with an average grade of about 0.2 percent U_3O_8. The property is now idle and has no significant reserves.

The School Section 36 deposit was found by drilling in 1953. (The ore-bearing beds are not exposed on the property.) The incline and underground workings at present aggregate more than 1,000 feet. The ore differs from that of the Service Berry and Divide deposits; it is unoxidized and consists of black vanadium and uranium minerals. The lower Chinle is about 30 feet or more thick and consists of conglomerate, coarse to fine and silty sandstone, and claystone. The ore is mainly in sandstone. Production is currently more than 1,000 tons monthly. Reserves are estimated by the Atomic Energy Commission to total several tens of thousands of tons of ore with an average grade of more than 0.3 percent U_3O_8. The deposit as presently outlined by drilling and mining has an average thickness of about 4 feet, a maximum width of about 300 feet and an average width of about 150 feet. The deposit is more than 1,000 feet long and although apparently discontinuous, shows a well developed elongation trending about due west.

The Williams-Noble deposit was discovered by drilling in 1954. Assay data is incomplete, but estimates based on preliminary data suggest that the deposit is larger than 10,000 tons and that the ore averages more than 0.2 percent U_3O_8. The deposit is undeveloped and only partly outlined by exploratory drilling. The Chinle formation does not crop out on the property and data on the ore-bearing zone are not available to the writer.

Inferences may be drawn from the features of these deposits that are helpful in evaluating the Walter Duncan Mining Company claims. (1) The general area is favorable for mineralization because it contains minable deposits ranging in size from small to large. (2) The Walter Duncan Mining Company claims are probably underlain by a thicker lower Chinle more favorable for large ore deposits than the Divide or Service Berry properties, because outcrops and drilling suggest that the ore-bearing lower Chinle thickens southerly away from the axis of the Lisbon Valley anticline. Further, the School Section 36 deposit suggests that the thicker lower Chinle is more favorable for large deposits. (3) The projected trend of the School Section 36 deposit suggests that the southern part of the company property should be most favorable for ore. (4) The company property should not be regarded as unfavorable for ore or as an unduly high risk for exploration merely because the ore-bearing rock is not exposed on the property. All large uranium deposits of the Lisbon Valley-Big Indian Wash mining area have been found by drilling; none has been found at the outcrop.

As a matter of fact, the Divide and Service Berry properties are the largest deposits known from natural exposures. (5) The area of the company claims, Lisbon Valley, is similar, perhaps nearly identical geologically with the area of large deposits along Big Indian Wash about 5 miles northwest. The Big Indian Wash area contains many large deposits, including C. A. Steen's Mi Vida deposit, and ranks as a leading uranium producing area in the United States. Although the writer believes that there is probably a real difference in the uranium potential of the two areas, a large part of the difference may be attributed to the fact that the Lisbon Valley area is relatively unexplored.

PROPOSED EXPLORATION

The applicant's proposed program consists of about 25,500 feet of drilling in 42 holes at an estimated cost of $92,200. The drilling is divided into 3 stages with stage 2 dependent on results of stage 1 and stage 3 dependent on results of stage 2.

Stage I

A maximum of 14 holes and 8,650 feet of plug and core drilling in fences 2,000 feet apart at location marked "A" shown on figure 3. Holes are to be on a minimum of 400-foot centers.

Stage II

A maximum of 11 holes and 6,350 feet of plug and core drilling in fences to be located at intermediate points between rows of holes in stage 1. Holes are to be on a minimum of 400-foot centers. Hole locations shown on figure 3, marked "B" will be used unless revised locations satisfactory to the Government are made as a result of stage I drilling and written authorization by the DMEA Field Team, Region III, is obtained.

Stage III

A maximum of 17 holes and 10,500 feet of plug core drilling in offset holes to explore further any mineralization or favorable geologic conditions found in stages I and II. Holes are to be on a minimum of 100-foot centers and no hole is to be closer than 100 feet to any previously drilled hole. Hole locations are to be satisfactory to the Government and written authorization by the DMEA Field Team, Region III, will be required.

The applicant's proposed drilling program seems logical to the examining team. All holes should be cored the bottom 40 feet.

SUMMARY AND RECOMMENDATIONS

The authors recommend that a loan be granted for exploration of the property. Although no uranium ore is known on the property, the property is adjacent to known mineralized and ore-bearing ground and projected stratigraphic information and trends at ore-bearing suggest that the property may be favorable for ore. We recommend that a DMEA contract be approved to provide for an exploration program as outlined above. The above exploration program is the same as the revised program submitted by the applicant.

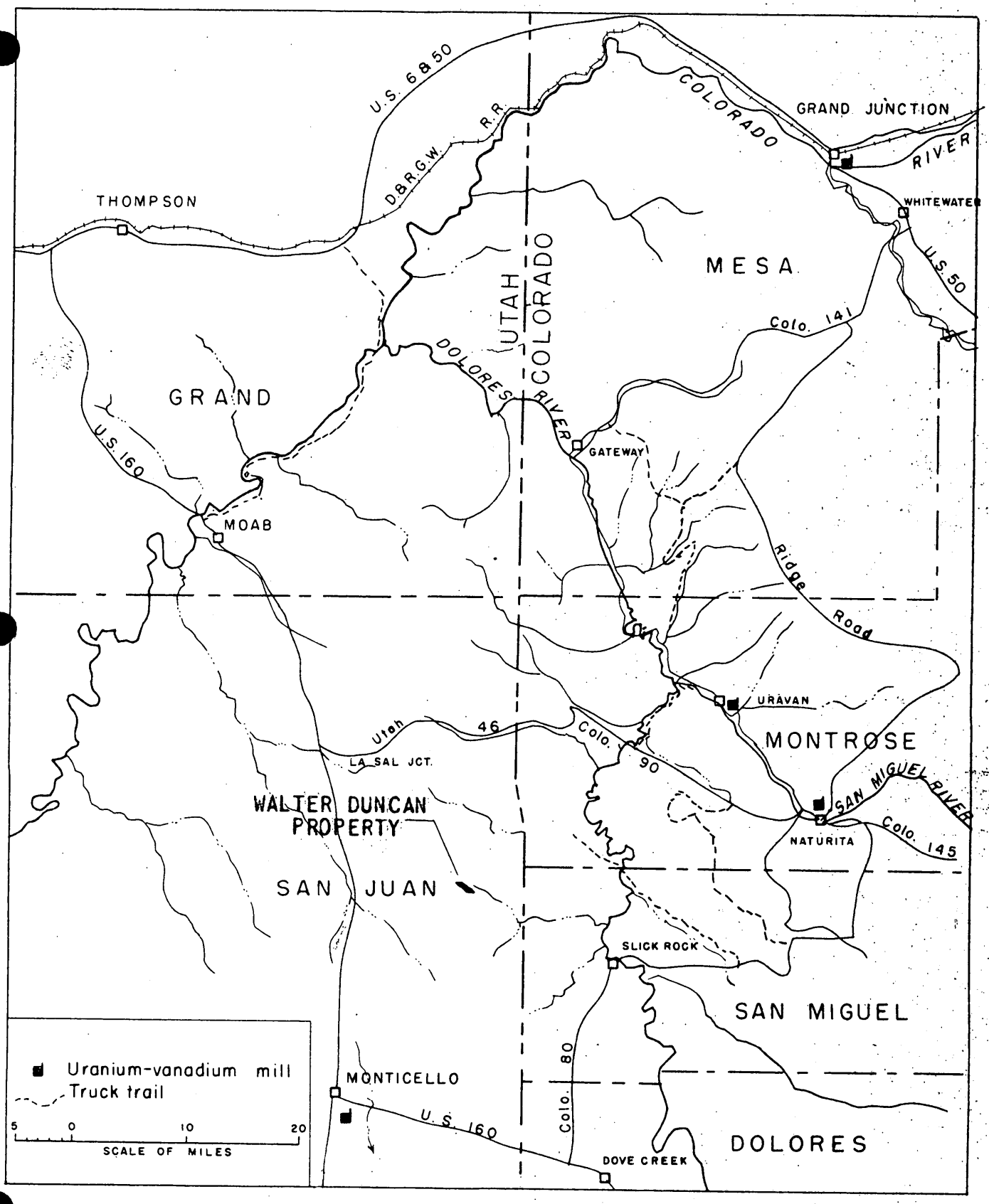


Figure 1. INDEX MAP OF PART OF THE COLORADO PLATEAU SHOWING LOCATION OF WALTER DUNCAN MINING CO. CLAIMS, LISBON VALLEY AREA SAN JUAN COUNTY, UTAH

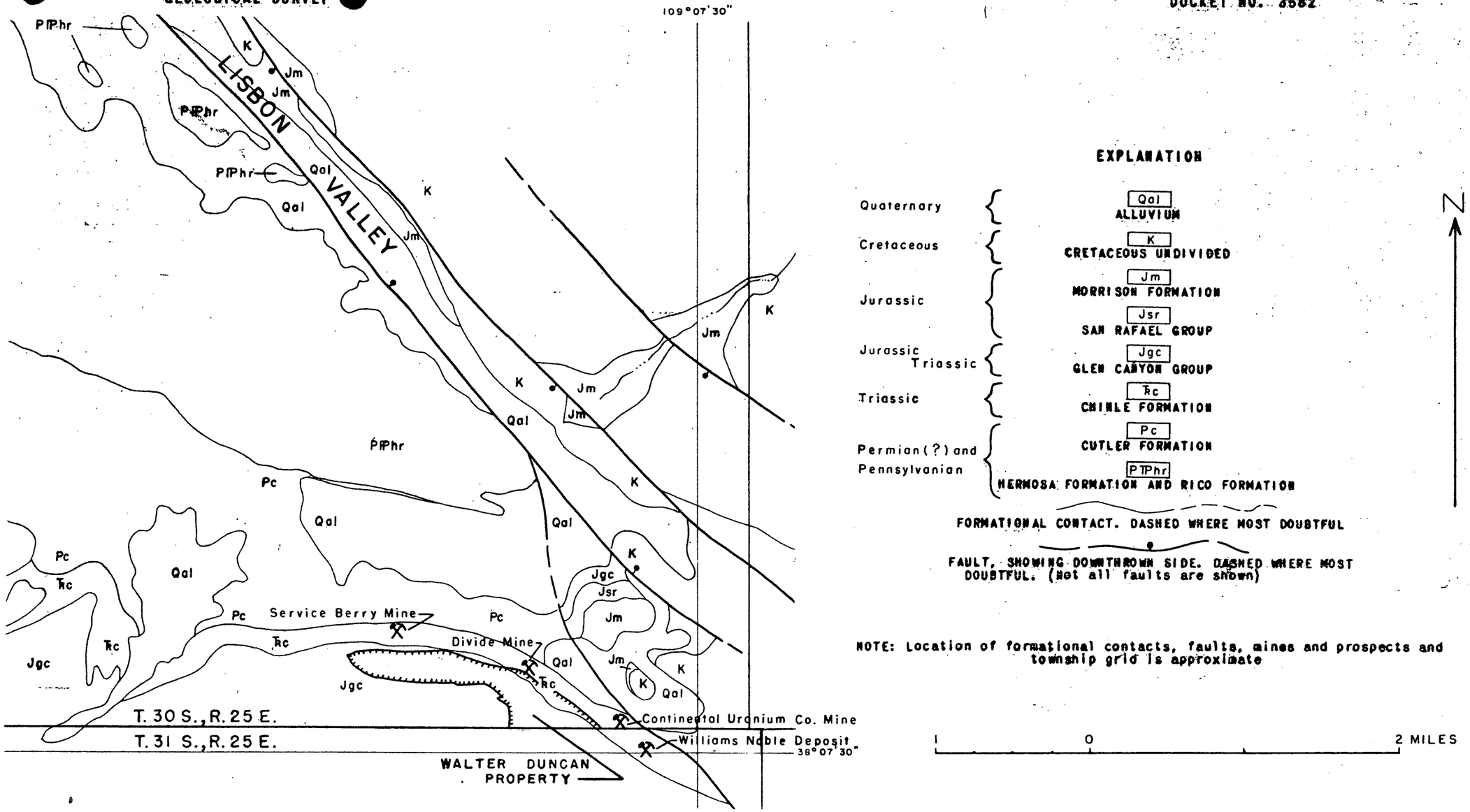


Figure 2. MAP SHOWING GEOLOGIC SETTING OF THE WALTER DUNCAN CO. MINING CLAIMS, LISBON VALLEY AREA, SAN JUAN COUNTY, UTAH

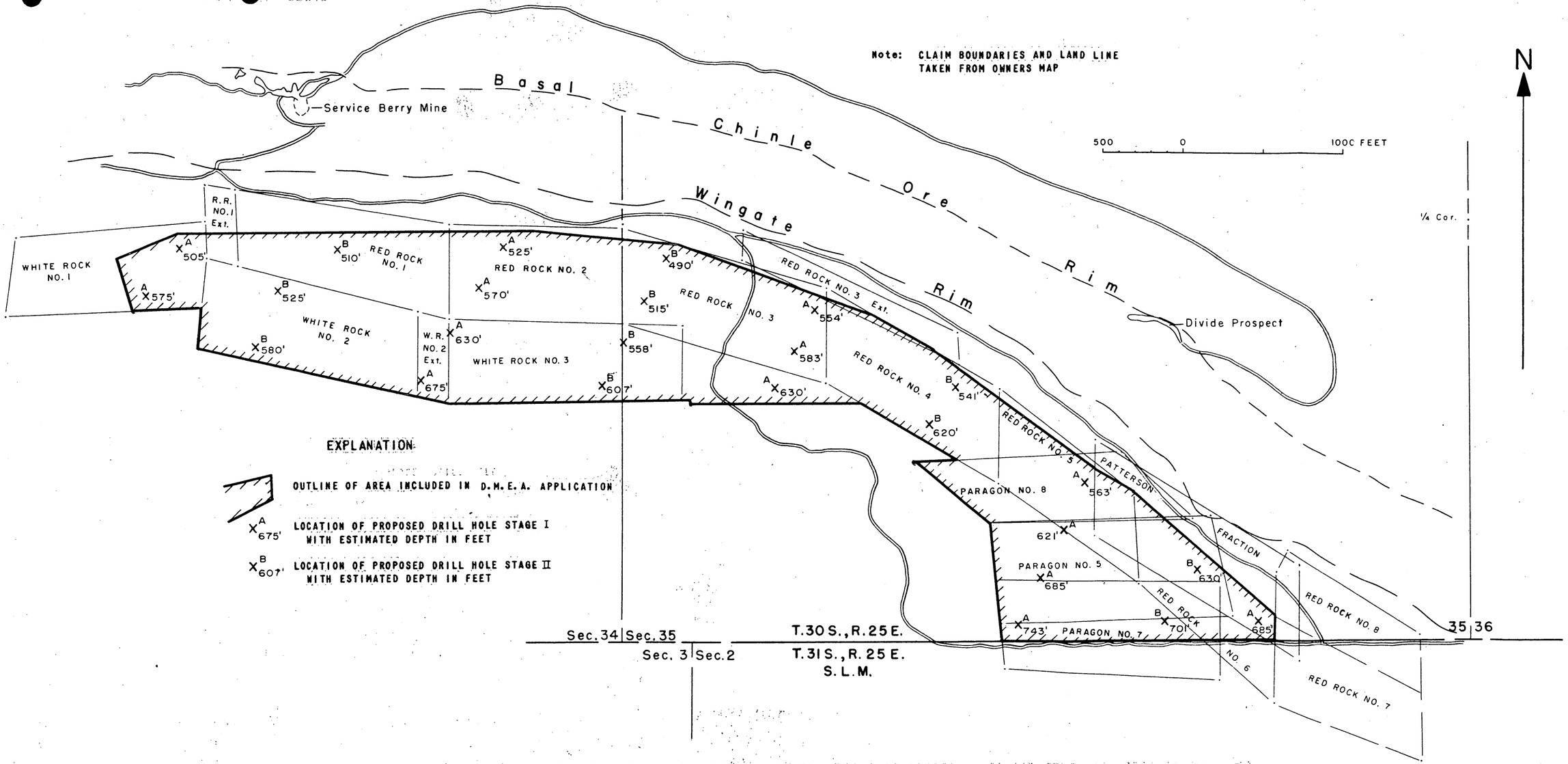


Figure 3. CLAIM MAP SHOWING LOCATION OF PROPOSED DRILL HOLES ON WALTER DUNCAN MINING CO. CLAIMS, LISBON VALLEY AREA, SAN JUAN COUNTY, UTAH

Table 1.-- Generalized stratigraphic section of rocks exposed in and near Big Indian Wash, Lisbon Valley area, Colorado-Utah

System or series	Group	Formation	Estimated thickness (feet)	Character of rocks
Quaternary		Alluvium	0-50	Sandy and silty material in part cemented in streams and valleys
		Gravel	0-50	Boulders, cobbles, and pebbles in sandy matrix, unconsolidated.
Upper Cretaceous		Mancos shale	200	Gray marine shale, fossiliferous at base; covers parts of mesas. Upper part removed by erosion.
Upper Cretaceous		Dakota sandstone	50-100	Gray and brown sandstone, brown carbonaceous shale and impure coal.
Lower Cretaceous		Burro Canyon	160-250	Brown conglomerate and sandstone and bright green and reddish shale and mudstone; commonly silicified to a dense quartzite in the Lisbon Valley faults zone.
Upper Jurassic		Morrison	300-420	Brushy Basin member; varicolored mudstone; some sandstone and conglomerate lenses commonly near base.
			300-375	Salt Wash member; light colored sandstone and red and gray mudstone.

System or series	Group	Formation	Estimated thickness (feet)	Character of rocks
	San Rafael group	Summerville	65-90	Red sandy mudstone.
		Entrada sandstone	175-225	Massive cross-bedded medium-grained sandstone; forms rounded cliffs. May include lateral equivalent of Moab tongue of Entrada.
		Carmel	30-75	Irregularly-bedded red sandstone and mudstone.
Jurassic		Navajo sandstone	180-250	Massive cross-stratified buff medium-grained sandstone; forms cliff.
Jurassic (?)	Glen Canyon group	Kayenta formation	200-300	Irregularly bedded fine- to coarse-grained red sandstone, red conglomerate, and red mudstone. Transitional contacts above and below.
Upper Triassic		Wingate sandstone	250-350	Massive cross-stratified red fine-grained sandstone; forms cliff.
		Chinle	390-420	Red mudstone and irregularly bedded sandstone above. Light colored sandstone and green mudstone below. (Moss Back member?); ore-bearing.
Lower and Middle Triassic		Moenkopi	Unknown *	Chocolate brown mudstone and sandstone, commonly ripple-marked (*does not crop out in Big Indian Wash but may be encountered in deep drill holes away from Big Indian Wash rim).

System or series	Group	Formation	Estimated thickness (feet)	Character of rocks
Permian		Cutler	900	Buff, red, white, and purple sandstone and red and gray mudstone.
Permian (?) and Pennsylvanian		Rico	600(?)	Buff arkosic sandstone, gray shale, and marine(?) limestone. Contacts poorly understood.
Pennsylvanian		Hermosa	1,000+	Fossiliferous marine limestone and buff arkosic sandstone and gray sandstone. Base not exposed.

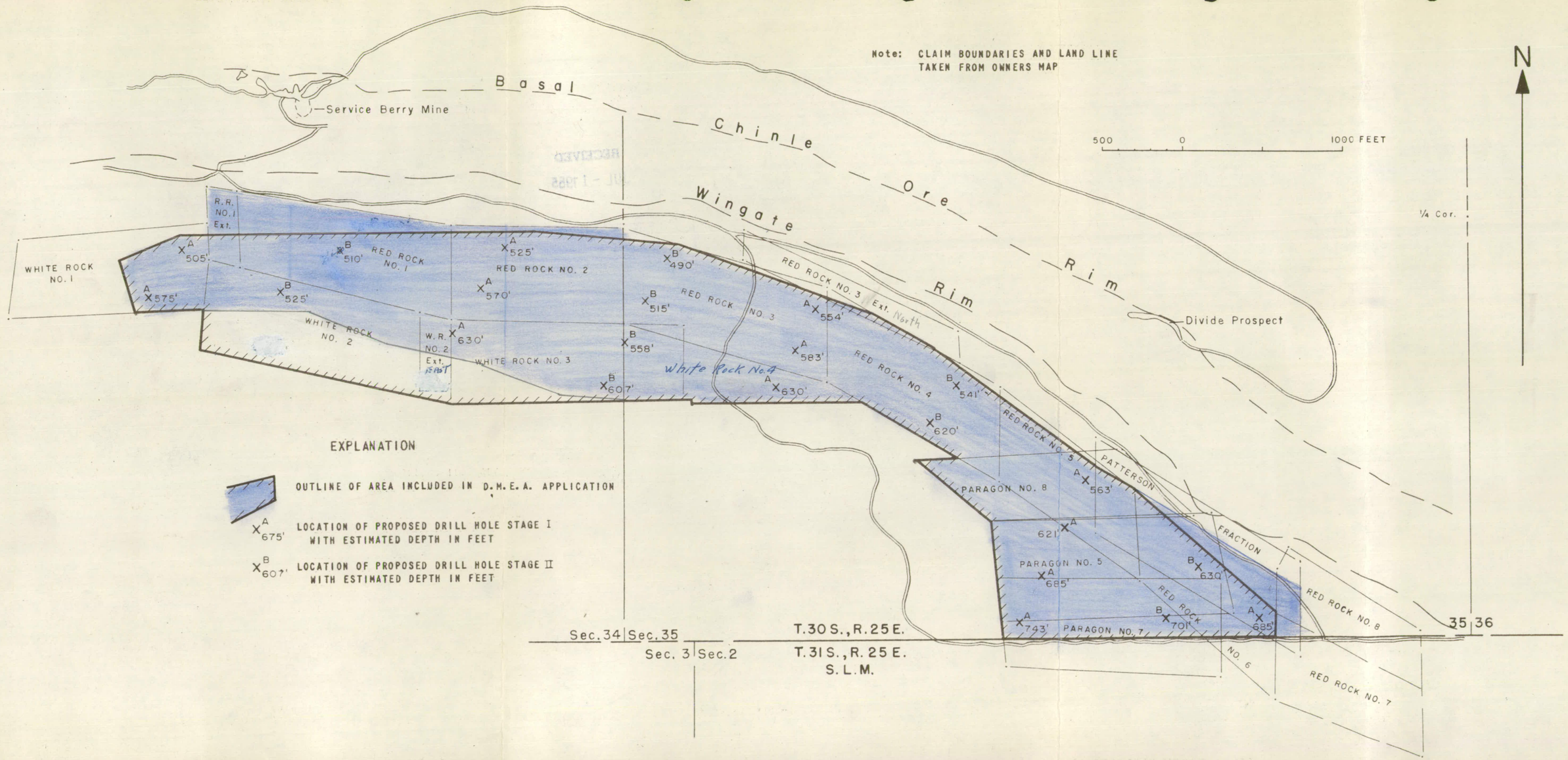


Figure 3. CLAIM MAP SHOWING LOCATION OF PROPOSED DRILL HOLES ON WALTER DUNCAN MINING CO. CLAIMS, LISBON VALLEY AREA, SAN JUAN COUNTY, UTAH

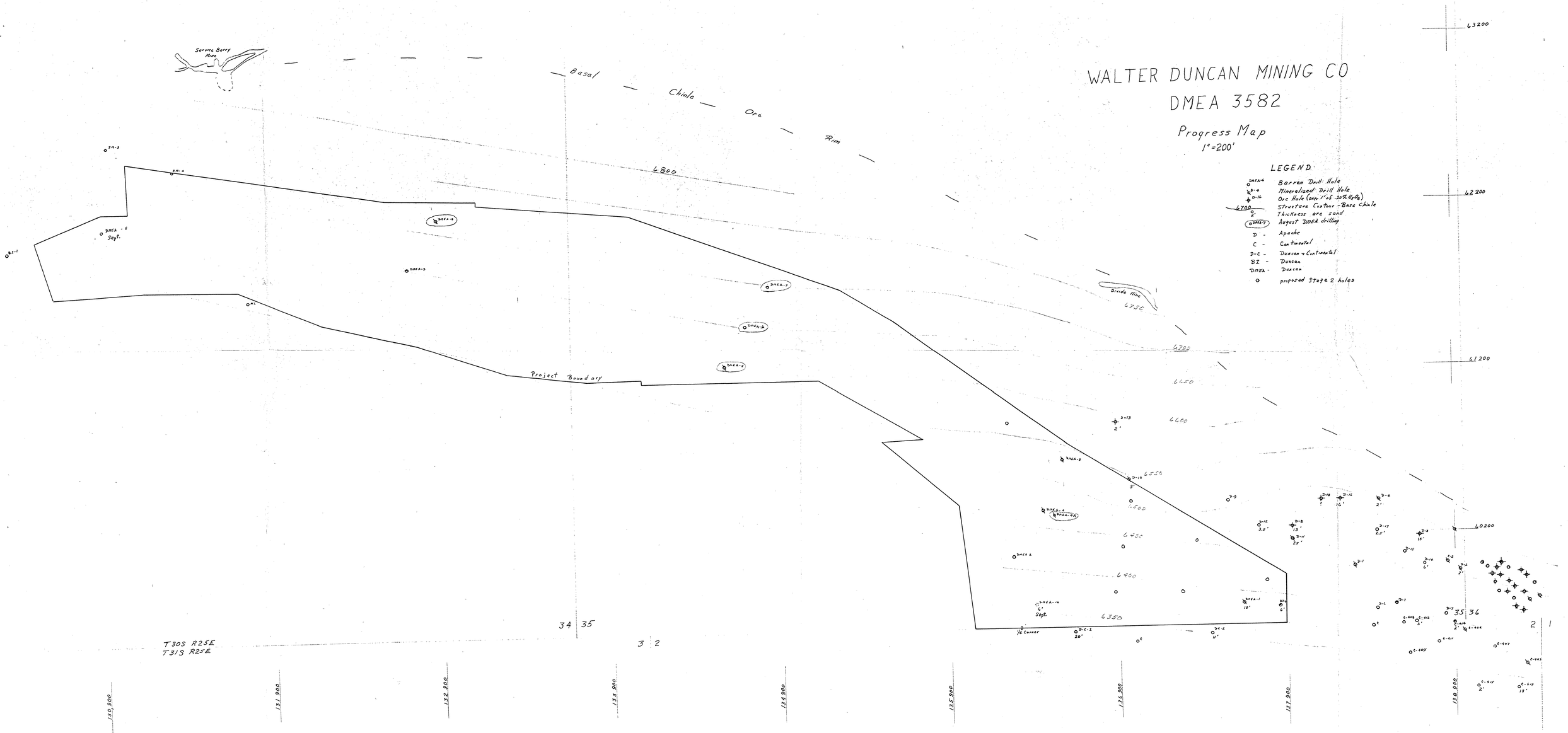
RECEIVED
JUL - 1 1955

WALTER DUNCAN MINING CO
DMEA 3582

Progress Map
1" = 200'

LEGEND

- DMEA-4 — Barren Drill Hole
- D-6 — Mineralized Drill Hole
- D-16 — Ore Hole (over 1' at 20% MgPb)
- 6700 — Structure Contour - Base Chiile
- 2' — Thickness ore sand
- DMEA-7 — August DMEA drilling
- D - Apache
- C - Continental
- D-C - Duncan + Continental
- BZ - Duncan
- DMEA - Duncan
- proposed Stage 2 holes



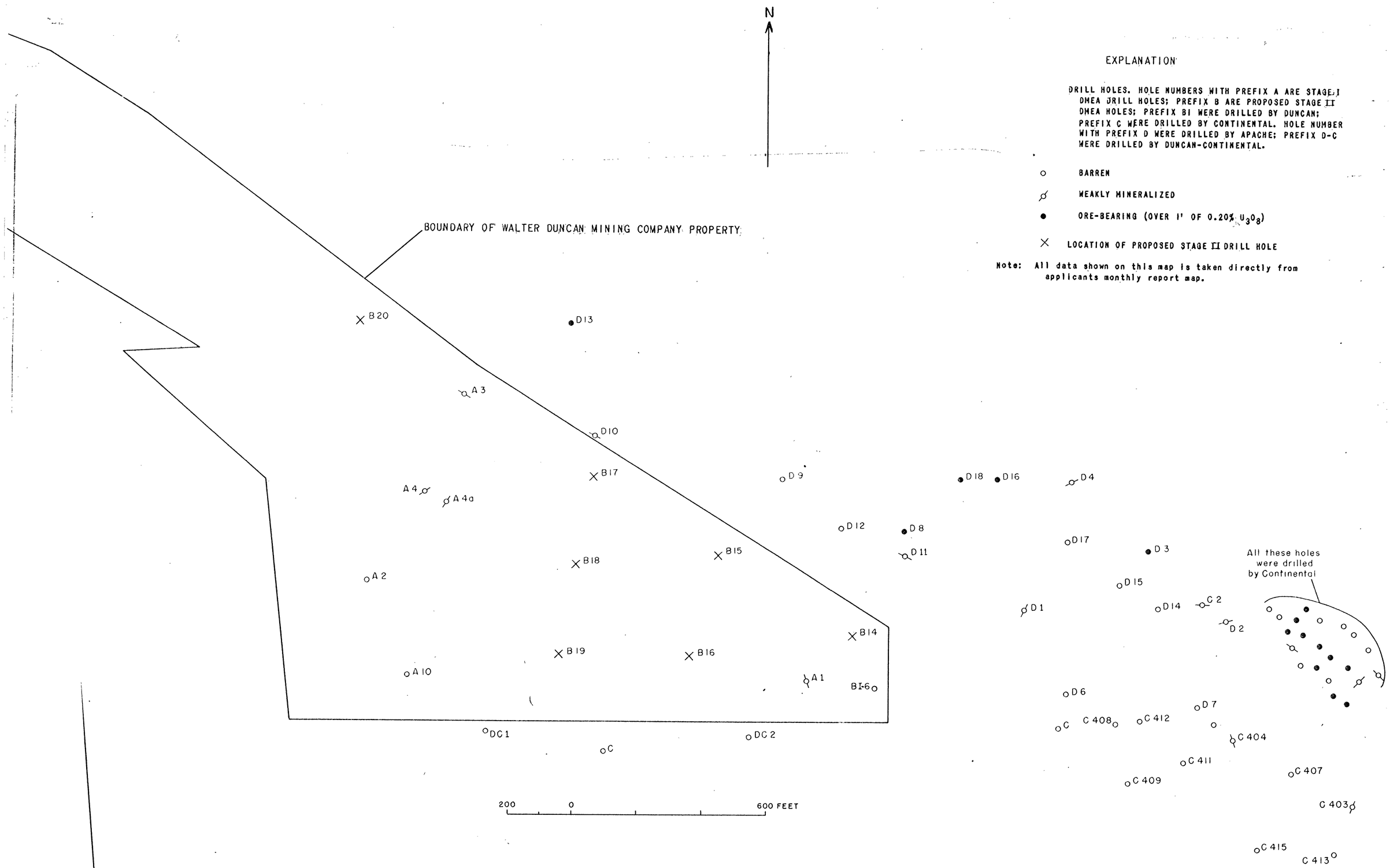
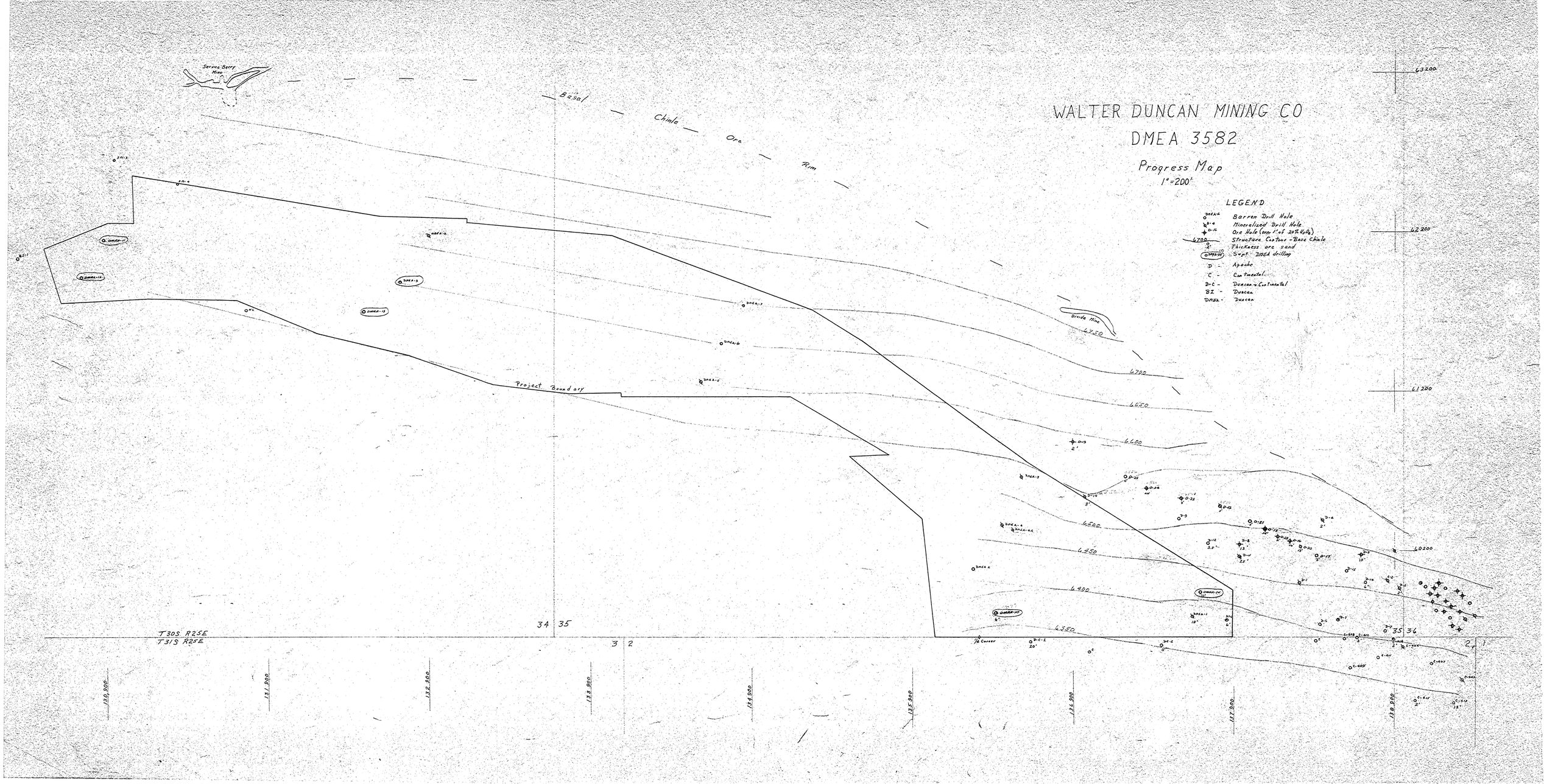


Figure 1. MAP OF PART OF WALTER DUNCAN MINING COMPANY PROPERTY, SHOWING LOCATION OF STAGE I, SEVEN PROPOSED STAGE II DRILL HOLES, AND PRIVATE DRILLING ON ADJACENT PROPERTY, SAN JUAN COUNTY, UTAH.


WALTER DUNCAN MINING CO
DMEA 3582
Progress Map
1" = 200'
LEGEND
Barren Drill Hole
Mineralized Drill Hole
Ore Hole (over 1' of 20% Up)
Structure Contour - Base Chiale
Thickness ore sand
Sept. DMEA drilling
D - Apache
C - Continental
D-C - Duncan-Continental
SI - Duncan
DMEA - Duncan
Service Berry Mine
Basal Chiale Ore Rim
Project Boundary
Divide Line
6750
6700
6650
6600
6550
6500
6450
6400
6350
63200
62200
61200
60200
34 35
3 2
35 36
2 1
T30S R25E
T31S R25E
130,900
131,900
132,900
133,900
134,900
135,900
136,900
137,900
138,900

WALTER DUNCAN MINING CO

DMEA 3582

Progress Map

1" = 200'

OCTOBER

LEGEND

- DMEA-2 — Barren Drill Hole
- D-8 — Mineralized Drill Hole
- D-16 — Ore Hole (over 1' of 20% Cu)
- 6700 — Structure Contour - Base Chinle
- 2' — Thickness ore sand
- DMEA-18 — Oct. DMEA drilling
- D - Apache
- C - Continental
- D-C - Duncan + Continental
- BI - Duncan
- DMEA - Duncan

Service Berry Mine

Basal Chinle Ore Rim

Project Boundary

Divide Line

6250 6700 6650 6600 6550 6500 6450 6400 6350

DMEA-11 DMEA-17 DMEA-18 DMEA-16

1/16 Corner

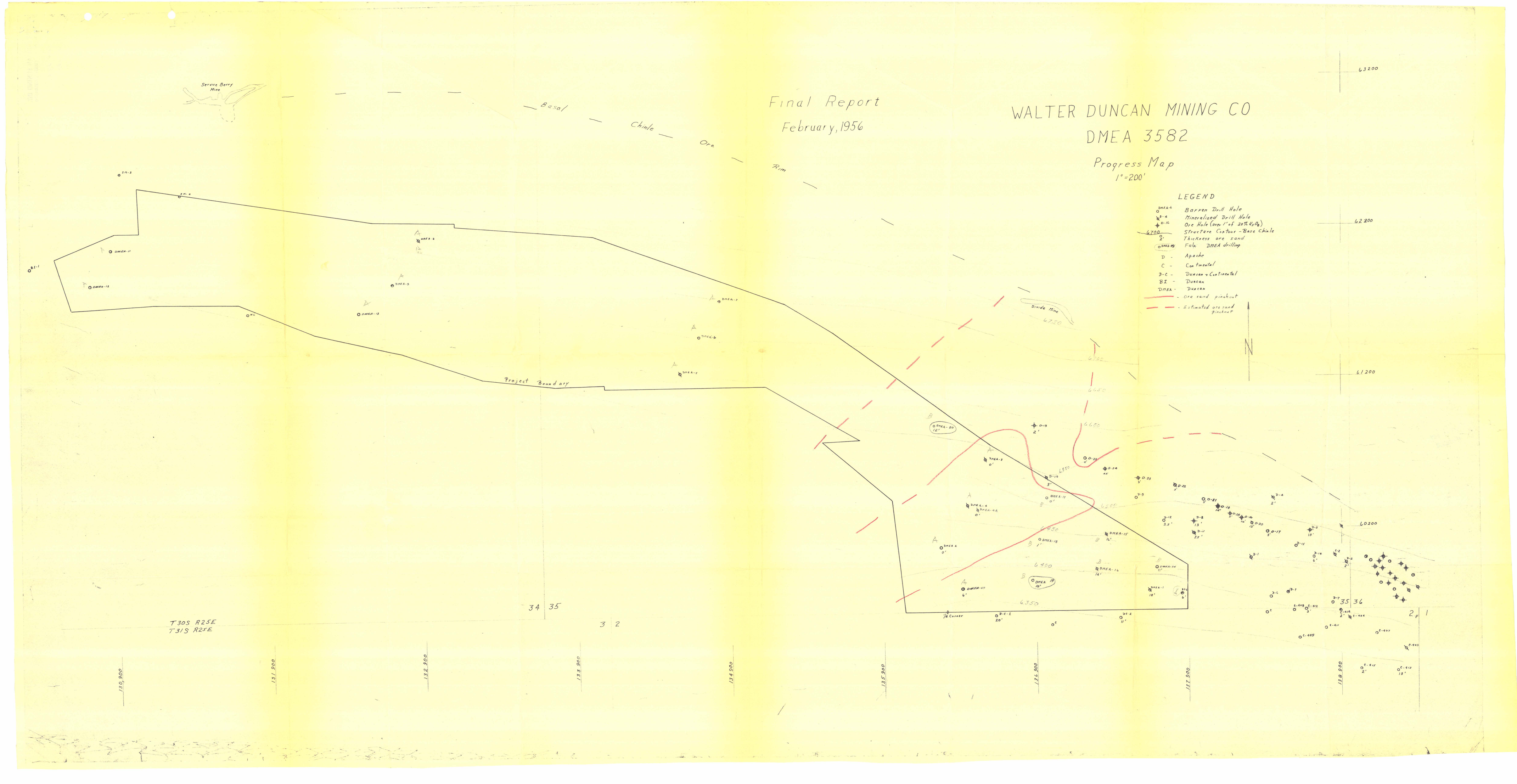
T30S R25E
T31S R25E

34 35 36

3 2 1

63200 62200 61200 60200

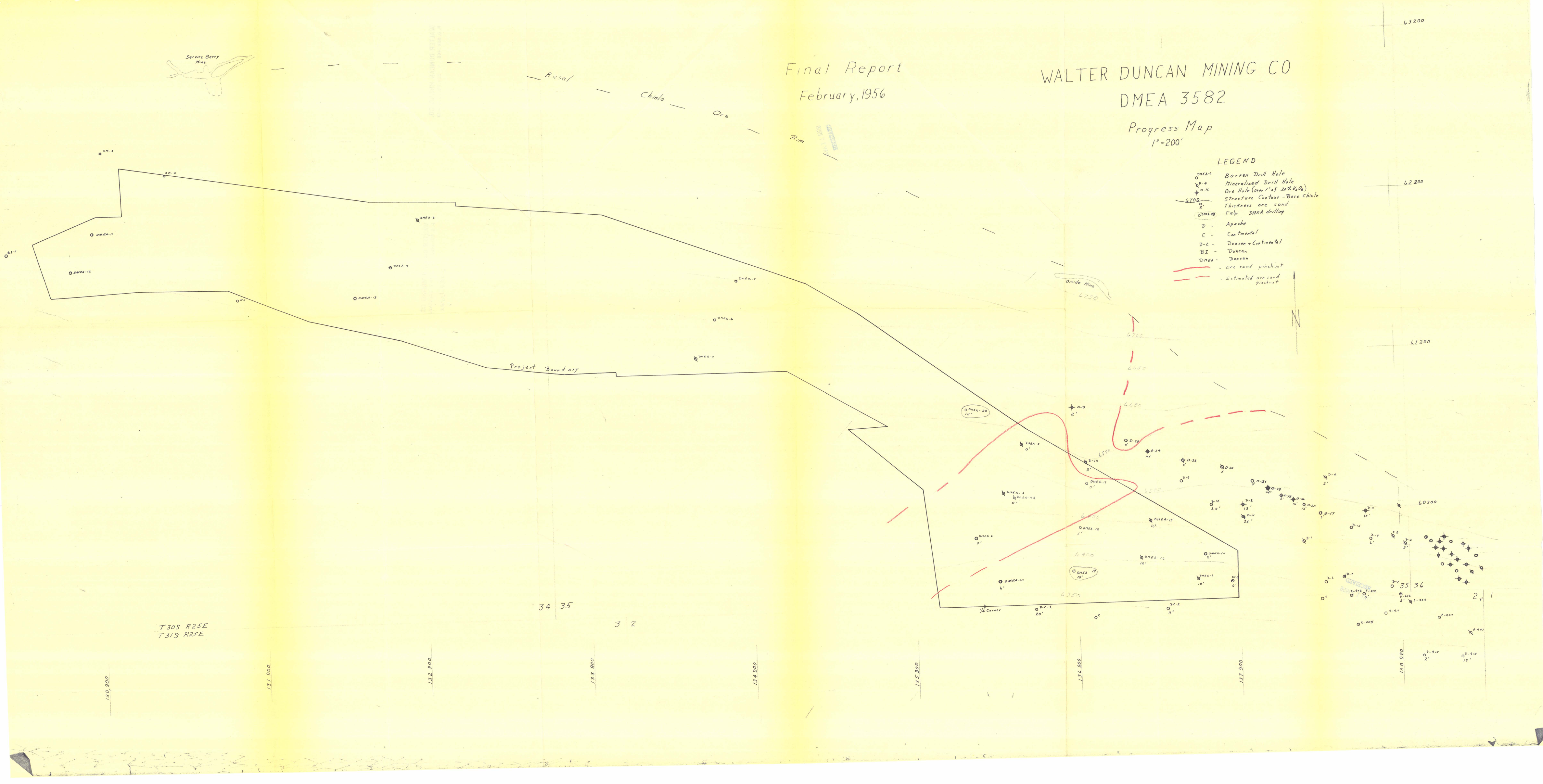
130,900 131,900 132,900 133,900 134,900 135,900 136,900 137,900 138,900


Final Report
February, 1956
WALTER DUNCAN MINING CO
DMEA 3582
Progress Map
1" = 200'
LEGEND
Barren Drill Hole
Mineralized Drill Hole
Ore Hole (over 1' of 20% U_3O_8)
Structure Contour - Base Chinle
Thickness ore sand
Feb. DMEA drilling
D - Apache
C - Continental
D-C - Duncan & Continental
BI - Duncan
DMEA - Duncan
- Ore sand pinchout
- Estimated ore sand pinchout
Service Berry Mag
Basal Chinle Ore Rim
Project Boundary
Divide Mine
T30S R25E
T31S R25E
34 35
3 2
35 36
2 1
130,900
131,900
132,900
133,900
134,900
135,900
136,900
137,900
138,900
63200
62200
61200
60200
6750
6700
6650
6600
6550
6500
6450
6400
6350
N

WALTER DUNCAN MINING CO
DMEA 3582

Final Report
February, 1956

Progress Map
1" = 200'



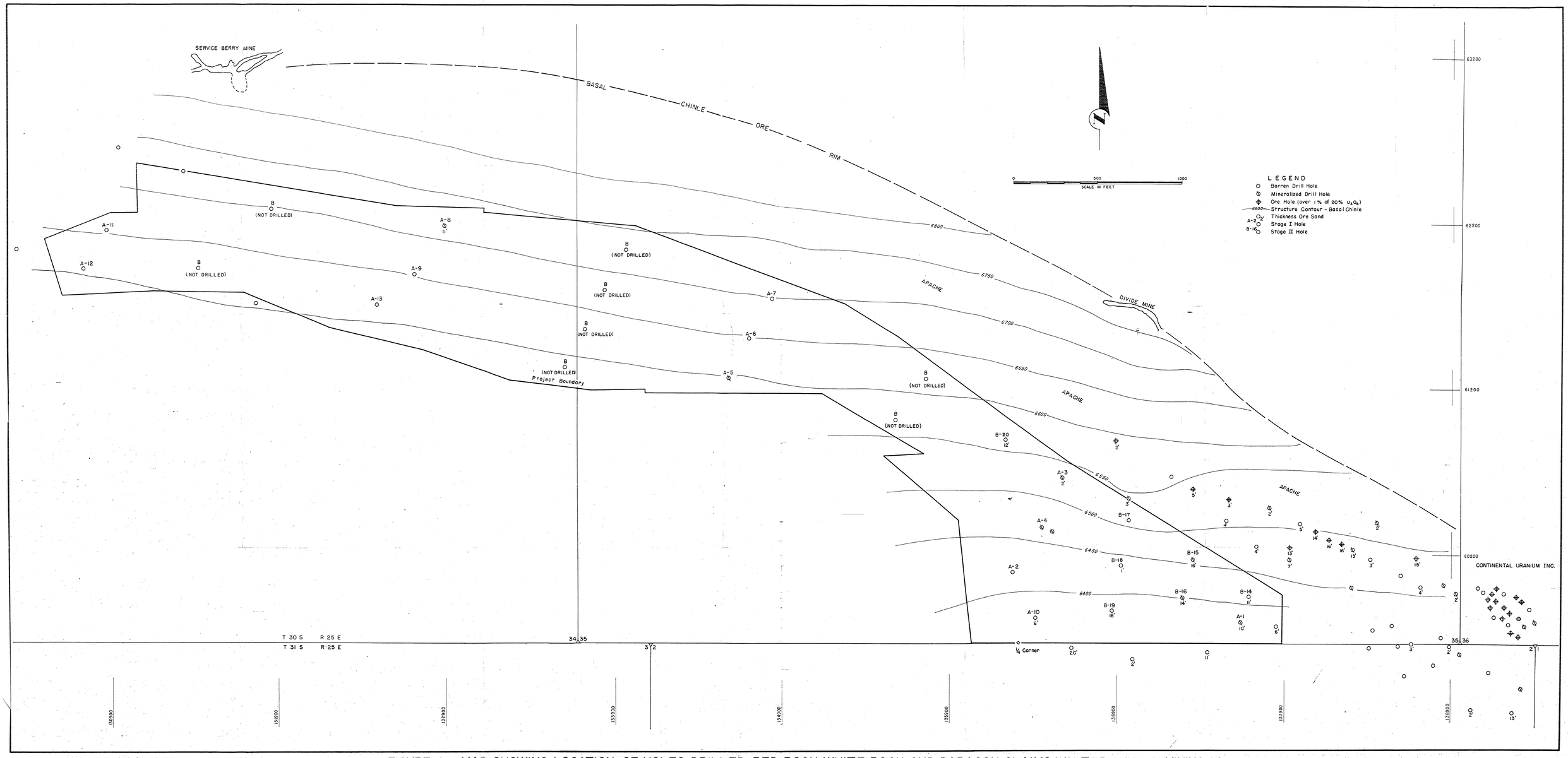


FIGURE 2 - MAP SHOWING LOCATION OF HOLES DRILLED, RED ROCK, WHITE ROCK AND PARAGON CLAIMS, WALTER DUNCAN MINING CO., SAN JUAN COUNTY, UTAH. DMEA 3582