RECEIVED
OCT 30 1958
O.M.E.

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

McAlester Fuel Company
P.O. Box 761
McAlester, Oklahoma

pertaining to Exploration Project Contract No. Idm-[illegible]133, MMA No. 4742, including Termination Agreement dated August 19, 1958, for the period September 19, 1957 to March 18, 1958, inclusive, covering a project for the exploration of Uranium on property known as Star Claims and Leased Land located in Fall River County, South Dakota, near Edgemont.

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, verification of work performed by reference to Field Team reports and correspondence, 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 reasons given on the attachment to this report.

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

Total cost as billed by Contractor		$47,905.30
Exceptions:		
Prior to this review	$0.00	
Herewith	0.00	0.00
Total Accepted Cost		$47,905.30

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 Thirty-five, nine hundred twenty-eight and 98/100ths Dollars is 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.

Amount payable to Operator	$35,928.98
Amount reimbursed	35,928.98
Balance due Operator	$ [illegible]

Donald F. Finch
Donald F. Finch, [illegible] Auditor

October 27, 1958

REASONS FOR REPORT OF REVIEW IN LIEU OF FINAL AUDIT

McAlester Fuel Company

Contract No. [illegible]-[illegible]133 Docket No. [illegible] 4742

(a) The Monthly Reports were supported by documentary proof of that portion ($42,[illegible].00) of the costs which covered work performed at unit rates under independent contract. (For summary attached.)

(b) The balance ($5,105.30) of the costs incurred were under a contract provision for payment by the Government on the basis of fixed unit costs of work actually performed; and

(c) The administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible disallowance thereunder.

SCHEDULE OF DOCUMENTED COSTS

Mallinckrodt Fuel Company

Contract No. [illegible] | Project No. [illegible]

Independent Contract

41,990 ft. non-core rotary drilling @ $1.00 per foot	$41,990.00	
61 hours Standby time @ $10.00 per hour	610.00	
Total Independent Contract Costs		$42,600.00

Fixed Unit Costs

Incidental Allowance		
41,990 ft. completed drilling @ 12¢ per foot	$ 5,038.80	
19 chemical analyses @ $3.50 each	66.50	
Total Fixed Unit Costs		5,105.30
Total Accepted Costs		$47,705.30

Mr. Donald T. Finch
[illegible] Auditor
224 Rev Customhouse
Denver 2, Colorado

Re: Mallinckrodt Fuel Company
Docket No. [illegible]-4742
Contract No. [illegible]

Dear Mr. Finch:

Your report of review on the above-cited project is acceptable and normal distribution is authorized.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers
Contract Administration
and Audit Division

AMAlley/ame
October 30, 1958

Copy to: Docket
Director's Reading File
Mr. Chambers

[illegible] New Customhouse
Denver 2, Colorado

October 27, 1958

Memorandum

To: Donald T. Finch, GSE Auditor, Region III

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

Subject: Docket No. [illegible] 474g (Uranium), Contract No. [illegible]
Ballester Mfg. Company (Star Claims and Leased Lands)
Fall River County, South Dakota

The subject contract was terminated by mutual agreement effective March 12, 1958. A copy of the Termination Agreement is enclosed for your records.

The Operator has rendered a final engineering and geologic report and final accounting, as required by the contract. Therefore, final payment of the Operator's account is in order, contingent on release to this office of a Certificate and Report of Audit, or Report of Review of the reported project costs, whichever the case indicates.

Acceptable units of work or service completed on a Fixed Unit Cost basis consisted of incidental allowance on 41,990 feet of non-core drilling in three stages, and chemical analyses of 19 samples for U_3O_8 content.

The sum of $990.00 was withheld from reimbursement to the Operator in processing its final accounting report, which was for the month of March, 1958.

Original signed by
E. N. HARSHMAN

E. N. Harshman

Enc.

JCR:bh
cc: Chron. Op. Comm. (2)
Harshman
Marshall, GSE/DFC
Contrac. File
Cooper
Chron.

800

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 13 1958

DATE	INITIALS	CODE

224 New Customhouse
Denver 2, Colorado
November 4, 1958

Memorandum

To: T. A. Christensen

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 4742 (Uranium) Contract Idm-K1133, McAlester Fuel Company, (Star claims and leased land) Fall River County, South Dakota - FINAL PAYMENT

Reference is made to our memorandum of May 15, 1958, whereby we forwarded the final Form MF-104, Operator's Monthly Report and Voucher, for the month of March 1958, and requested that you withhold an amount of $500.00, pending resolution of matters prerequisite to closing the account.

The Operator's final report has been received, therefore, final payment to the Operator is to be made on the following basis, which is in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, OME, dated October 27, 1958.

Basis for Final Payment

Total accepted cost----------	$47,905.30
Government participation at 75 percent-	35,[illegible].98
Total prior payments----------	34,[illegible].98
Balance due the Operator----------	$ 500.00

Original signed by
J. W. TOWNSEND

J. W. Townsend

JDC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
Marshall, OME/DFC
Corres.file, Reg. III
MF-104 file, Reg. III
Cooper
Chron

Paid $500.00
RKC

11-7-58

DMEA-59-60

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 March, 1958 Docket No. DMEA 4742 Contract No. Idm-E1133
Operator's Name McAlester Fuel Company Minerals Uranium
Address P. O. Box 783, McAlester, Oklahoma
Contract Amount, $ Government Participation: 75 % Amount, $

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	4830.00	37,160.00	41,990.00			
Bulldozing	0.00	0.00	0.00			
~~[illegible]~~ Standby	140.00	670.00	810.00			
~~[illegible]~~ Incidentals	579.60	4,459.20	5,038.80			
Analyses	0.00	66.50	66.50			
(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	5549.60	42,355.70	47,905.30	5,549.60	42,355.70	47,905.30

DMEA
DEPARTMENT OF THE INTERIOR
MAY 12 1958
REGION III
DENVER, COLORADO

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

Date *Payee McAlester Fuel Co.

Per Tom E. Garrard Title Vice Pres.

*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:

$ 3662.20

Signature RRP
(Authorized Certifying Officer)

Date 5/16/58 Vou. No. DMA-58-121

(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. 1Dm 2 1133 in accordance with the terms of the contract.

Signature E. Bunyan ($416.20) Title Mining Engineer Date May 14, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Checked for Engineering Allowability

Signature E. M. Hanchman Title Acting Executive Officer Date MAY 15 1958

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

Month of March 195 8 Docket No. DMEA 4742 Contract No. 10m-R1133

Operator's Name McAlester Fuel Company Minerals Uranium

Address P. O. Box 783, McAlester, Oklahoma

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
			STAGE I					
Non-core drill	ft.			17,581.00	17,581	1.00	20300	1.00
Standby	hr			240.00	24	10.00	34.5	10.00
Incidentals	ft.			2,109.72	17,581	0.12	20300	0.12
Analyses	Spl			45.50	13	3.50	140	3.50
			STAGE II					
Drilling: Core Non-core	ft.			19,579.00	19,579	1.00	26000	1.00
Standby	hr			430.00	43	10.00	45	10.00
Incidentals	ft.			2,349.48	19,579	0.12	26000	0.12
Analyses	Spl			21.00	6	3.50	210	3.50
			STAGE III					
Non-core Drill	ft.	4830.00	4830	4,830.00	4,830	1.00	15000	1.00
Standby	hr	140.00	14	140.00	14	10.00	22.5	10.00
Incidentals	ft.	579.60	4830	579.60	4,830	0.12	15000	0.12
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		5549.60		47,905.30				

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 5-8-58 Operator McAlester Fuel Co.

Per Jom E. Garrard Title Vice pres.

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.

Remarks:

(Instructions on reverse)

(For Government use only)

A Bunyon

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

FINAL DISTRIBUTION

MADE MAY 19 1958

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

Administrative Audit Difference Statement

[redacted]

Date: [redacted]
Payee's Reference: [redacted]

[redacted]

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

Amount Claimed $ [redacted]

Difference $ [redacted]

Amount Approved $ [redacted]

The reason for the difference was due to:

[redacted]

DATE		CODE
~~5/21~~	~~H.G.~~	~~225~~
"	[illegible]	100
		800

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

Very sincerely yours,

[redacted]
Audit Section

[redacted]
Final Officer, Region III

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

224 New Customhouse
Denver 2, Colorado
May 15, 1958

Memorandum

To: T. A. Christensen

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

Subject: Docket No. DMEA 4742 (Uranium) Contract IAm-K1133, McAlester Fuel Company, (Star claims and Leased Lands) Fall River County, S. D., Operator's Monthly Progress Report for the month of March, 1958

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

The work is being performed partly under independent subcontract, and partly at fixed unit costs. The drilling rates are as low or lower than the rates contained in the lowest and best bid submitted with the application. Under the circumstances, the rates for the work performed under independent subcontract are considered to be reasonable.

We consider that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount reported on Form MF-104 for March, 1958, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations, except for the following deduction:

<u>Withhold</u> an amount of $500.00 pending possible additional work under the contract. If additional work is not approved by the Government and performed by the Operator continue to hold the amount of $500.00 pending resolution of matters prerequisite to closing the account.

Remarks: Date of Report----------May 8, 1958
Date Received in Field Office----------May 13, 1958
Date Received in Region Office----------May 15, 1958

Note: Although the Operator has indicated on Form MF-104 that the period covered is March, 1958, review of the drill logs indicates that the work was performed during the month of February, 1958.

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

Enclosures

JDC:hmh

cc: Chmn. Op. Comm. (2)
DMEA/DFC
MF-104 file, Reg. III
Harshman) w/copy Engr's
Townsend) Report
Chron

DMEA
DEPARTMENT OF THE INTERIOR

REGION III

MAY 15 1958
REGION III
DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado
May 14, 1958

Memorandum

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

From: E. O. Binyon

Subject: Docket DMEA 4742 (Uranium) Contract Idm-E1133,
McAlester Fuel Company (Star claims and Leased Land)
Fall River County, S. D. -- Progress report for March 1958

An inspection was made of the drilling completed during the period on March 26, 1958. W. N. Sharp, geologist, U. S. G. S. accompanied the engineer on the inspection.

The locations and depths of the 9 holes drilled were found to be as shown on the map and as reported by the operator. A total of 4830 feet were drilled in the 9 holes. No check of the cuttings could be made because of snow. However, a check of the gamma ray logs showed near ore grade, 0.098% eU_3O_8 in hole 95 at depth 508.5-510.5 feet and 0.095% eU_3O_8 in hole 96 from 465.8-466.8 feet. Five holes, hole No. 94, 97, 98, 99, and 100 each had one foot of .03% or slightly better eU_3O_8 at depths ranging from 376' to 476'. No ore grade mineralization was found in any of the nine holes.

The operator's narrative list of the holes does not check the probe logs and the probe logs show 4839 feet drilled and 4836 feet logged. However, the 4830 feet is the footage invoiced and allowed for payment. Drilling footage and stand by time are properly documented and the MF-104 and 104A forms are correct.

It is recommended that the operator be paid $4,162.20 or the Government's share at 75 percent of $5,549.60, the amount claimed for payment and that $500.00 be withheld pending receipt of the final report.

Expiration date of the contract is May 1, 1958.

E. O. Binyon
E. O. Binyon
Mining Engineer

EOB/mv
cc: 6 Idm-E1133 chron

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

P.O. BOX 428

UL6-3468

March 15, 1958

DMEA
DEPARTMENT OF THE INTERIOR
MAR 21 1958
REGION III
DENVER, COLORADO

Mr. A. H. King, Executive Director
DMEA Field Team, Region 111
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA 4742
Contract No. Idm-E1133
McAlester Fuel Company

Dear Mr. King:

In reference to your letters of March 3, 1958 wherein your approvals of nine (9) Stage 111 drill holes were received, the following is a brief report of the Stage 111 drilling to date.

Stage 111 Drill Hole No.	Depth	Mineralization
94	540 ft.	Yes
95	531 ft.	"
96	540 ft.	"
97	545 ft.	"
98	549 ft.	"
99	541 ft.	"
100	522 ft.	"
101	528 ft.	"
102	534 ft.	"

Total Footage 4,830 ft.

Attached hereto is a map showing the location of all Stage 111 drill holes and a competation of mineralized data which represents cps/ft. This value was arrived at by taking a point 2/3 the maximum deflection on the curve for both thickness in feet and average cps. The product of these two figures is used as a measure of the total mineralization. Hole 71 is the most highly mineralized hole because of thickness. Several other holes had a higher total intensity in cps but the thickness was not as great. Hole 71 assayed .05% U_3O_8 from 460 to 466 feet. The assays were taken on dust collected samples and are considered low. The average maximum count was 178 cps for six (6) feet. When compared with the correlation curve included in my Stage 1 report, this hole should have assayed .036% U_3O_8 for six (6) feet.

The attached letter from Century Geophysical Company explains the many possible ramifications effecting the hole probe and that the curve referred to is based upon a dry hole and wet holes or mud caked holes would decrease the average cps materially.

Logs of hole 73 are attached. The one shows the results of probing the hole dry and the other after mud and water was used in the hole.

Favorable trends of mineralization are shown on the attached drill hole location map. Many of the more mineralized holes may have 2 to 3 feet of ore grade material based upon a more favorable correlation between assay and probe as indicated by the attached letter from Century Geophysical Company.

No decision has yet been made to ask for additional drilling in this mineralized zone. Considerable study is now being given the possibility of finding a smaller ore body between the drill holes now spaced a minimum of 250 feet apart.

Very truly yours,

Robert Ford

RBF:hlm

Encl 4
Attached map and 2 logs hole 71
CC: Mr. Tom Garrard

ELECTRIC — CALIPER
LOGGING
AND
INTERPRETATIONS

GEOLOGICAL AND GEOPHYSICAL
MINING SURVEYS
SEISMIC
SURVEYS

Century Geophysical Corporation
LOGGING AND URANIUM DIVISION
312 Uranium Center
GRAND JUNCTION COLORADO
CHapel 3-1183

March 15, 1958

Ford and Fox
Consultant Geologists
206 S. Broadway Ave.
Riverton, Wyoming

Dear Mr. Ford:

In reference to the work we have thus far completed for you in South Dakota, an examination of the logs shows the following:

Analysis of the gamma ray anamolies in dry holes and fluid filled holes shows that the anamolies in the fluid filled holes are about 20% less than same anamolies in the dry holes.

In relating chemical assays of your dust samples to our C.P.S. versus $\%U_3O_8$ conversion curve it was found that the conversion curve does not give a reliable relationship between C.P.S. and $\%U_3O_8$ in your area. This curve was calculated from data obtained from the Wind River formation in the Gas Hills Area in Wyoming and will not necessarily give a true relationship in other areas. Calculations show that the curve could be as much as 25% in error indicating a lower $\%U_3O_8$ than the chemical values.

Some factors that influence the recorded C.P.S. in an exploration hole are, hole diameter, position of the probe in the hole relative to the center and drilling mud density. Charts relating these factors are available upon request.

Yours very truly,

CENTURY GEOPHYSICAL CORP.

Alfred C. Mercier
Geologist

CC: A.J.Nicol

ACM/ltm

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

RECEIVED

Month of January, 1958 Docket No. DMEA 4742 Contract No. Idm-E 1133
Operator's Name McAlester Fuel Company Minerals Uranium
Address McAlester, Oklahoma
Contract Amount, $72,136.00 Government Participation: 75 % Amount, $54,102.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Contracts: ~~Short Form~~						
Drilling	19,592.00	17,581.00	37,173.00			
Bulldozing	0.00	0.00	0.00			
Crosscutting ~~XXXXXXXX~~ Standby	430.00	240.00	670.00			
Drifting ~~XXXXX~~ Incidentals	2,351.00	~~2,109.72~~ 2,350.22	4,460.76			
Analysis	21.00	~~45.50~~ 22.00	66.50			
(2) Labor and Supervision:		23510-1				
~~Labor~~ Stage I error	10.00					
~~Supervision~~ Stage I analysis	6.50					
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	$22,910.59 ~~22,394.04~~	$19,959.72 ~~19,976.22~~	42,370.26	22,395.98	19,959.72	42,355.70

DMEA
DEPARTMENT OF THE INTERIOR
FEB 26 1958
REGION III
DENVER, COLORADO

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 2-24-58 *Payee McAlester Fuel Co.
Per Tom E. Garnett Title Vice pres.

*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:
$16,796.99
Signature
(Authorized Certifying Officer)
Date 4/2/58 Vou. No. DMA 58-108
(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. Jdm-E 1133 in accordance with the terms of the contract.

Signature E. O. Simpson ($16,140.10 Title Mining Engineer Date March 28, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Checked for Engineering Allowability

Signature E. M. Hensbrauer Title Acting Executive Officer Date APR 7 1958

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 14 1958

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1958 Docket No. DMEA 4742 Contract No. Idm-E 1133
Operator's Name McAlester Fuel Company Minerals Uranium
Address McAlester, Oklahoma

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
			Stage I					
~~Drifting~~ Non Core Drill	ft.	~~17,581.00~~	~~17581~~	17,581.00	17,581	1.00		
~~Crosscutting~~ Bulldozing	hr.	~~0.00~~	~~0~~	0.00	0			
~~Raising~~ Standby	hr.	~~240.00~~	~~24~~	240.00	24	10.00		
~~Shafts~~ Incidentals	ft.	~~2,109.72~~ $2,288.94	~~17581~~	2,109.72	17,581	0.12		
~~Winzes~~ Analyses	Spl.	~~45.50~~ 38.83	~~13~~	45.50	13	3.50		
Drilling: Core								
Churn			Stage II					
~~Auger~~ Bulldozing	hr.	0.00	0	0.00	0			
~~Stripping~~ Non Core	ft.	19,592.00	19592	37,173.00	37,173	1.00		
~~Trenching~~ Standby	hr.	430.00	43	670.00	67	10.00		
~~Test Pits~~ Incidentals	ft.	2,351.04	19592	4,460.76	37,173	0.12		
~~Roads and Trails~~ Analyses	Spl.	21.00	6	66.50	19	3.50		
	Stage I errors	16.50						
Total Distributed Costs		~~22,394.04~~ $22,410.54		42,370.26				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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 2-24-58 Operator McAlester Fuel Co.

Per John S. Garrard Title Vice pres.

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)

Remarks:

(For Government use only)

E.O. Bunyon
Under "Costs to Date" and "Units to Date" Stage I amounts and units are included in the Stage II figures

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

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

FINAL DISTRIBUTION
MADE APR 10 1958

Administrative Audit Difference Statement

Mallester Fuel Company
P. O. Box 703
Mallester, Oklahoma

Date: April 8, 1958
Payee's Reference: January 1958

Gentlemen:

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

Amount Claimed	$	22,410.54
Difference	$	14.56
Amount Approved	$	22,395.98

EXTRA COPY
D M B A
RECEIVED APR 14 1958
DATE CODE
4/15 Com

The reason for the difference was due to:

The cost for 545 feet of drilling is reported for hole M-93; however, only 532 feet is reported on the lithologic and radiometric logs. The reported cost, including Incidental Allowance for 13 feet of drilling, is disallowed.

Disallowed reported cost for 13 feet drilling at $1.00 per foot ----- $13.00

Disallowed Incidental Allowance for 13 feet drilling at $0.12 per foot ---------- 1.56

Total amount disallowed ---------- 14.56

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

EXTRA COPY
DMEA
RECEIVED APR 14 1958
DATE | INITIALS | COPY

224 New Customhouse
Denver 2, Colorado
April 7, 1958

Memorandum

To: T. A. Christensen

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

Subject: Docket No. DMEA 4742 (Uranium) Contract Idm-E1133, McAlester Fuel Company, (Star claims and Leased Lands) Fall River County, South Dakota - Operator's Monthly Progress Report for the month of January, 1958

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

The work is being performed partly under independent subcontract, and partly at fixed unit costs. The drilling rates are as low or lower than the rates contained in the lowest and best bid submitted with the application. Under the circumstances, the rates for the work performed under independent subcontract are considered to be reasonable.

Two arithmetical errors were made by the Operator on Forms MF-104 and MF-104A for November, 1957. Correction has been made on the January 1958 voucher, resulting in additional Stage I costs, as follows:

Incidental Allowance	$10.00
Analyses	6.50
Total	$16.50

Except as otherwise indicated below, we consider that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended on the following basis contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Disallowance, Drilling

The cost for 545 feet of drilling is reported for hole M-93, however only 532 feet is reported on the lithologic and radiometric logs. The reported cost, including Incidental Allowance for 13 feet of drilling is to be disallowed.

Disallow reported cost for 13 feet drilling at $1.00 per foot----------$	13.00
Disallow Incidental Allowance for 13 feet drilling at $0.12 per foot----------	1.56
Total amount to be disallowed----------	14.56

Reconciliation with Amount Reported by the Operator on Form MF-104 for January, 1958

Amount reported on Form MF-104 for January, 1958----------	22,410.54
Amount to be disallowed----------	14.56
Acceptable cost for January, 1958----------	22,395.98
Government participation at 75 percent----------	16,796.99

Remarks:

Date of Report----------February 24, 1958
Date Received in Field Office--------February 28, 1958
Date Received in Region Office-------March 31, 1958

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

Enclosures

JDC:hmh

cc: Chmn. Op. Comm. (2)
DMEA/DFC
MF-104 file, Reg. III
Harshman) w/copy of
Townsend) Engr's Report
Chron

REGION III

DMEA
DEPARTMENT OF THE INTERIOR
APR 4 - 1958
REGION III
DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado
April 3, 1958

Memorandum

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

From: E. O. Binyon

Subject: Docket DMEA 4743 (Uranium) Contract Idm-E1133,
McAlester Fuel Company (Star claims and leased lands)
Fall River County, South Dakota -- Progress report for January 1958

Inspections of the drilling completed during the period were made on February 3, and March 26, 1958. On the first inspection, Max Hurtle, the company field representative, accompanied the engineer and Wm. H. Sharp, geologist, U. S. G. S., was on the second inspection.

The drilling reported, included 39 holes with a total aggregate footage of 19,592 feet. Two of the 39 holes, M-7 and M-9, were deepened to total depths of 510 and 520 feet respectively, which as reported totaled 390 and 502 feet of DMEA sponsored drilling. In the drilling report "Stage II Drilling" the depth of hole M-93 is shown as 545 feet, whereas the log shows a drilled and logged depth of 532 feet, or a difference of 13 feet, which is disallowed. Footages in the remaining 36 holes are correct.

Except as stated, the work was done in conformance with the terms of the contract and the holes are properly located. Documentation of the footage and standby time accompany the report.

According to the operator's hole data sheets, 5 holes, Hole M-54, 71, 72, 73, and 77 contained ore or near ore grade material. The eU_3O_8 percentages however are based on total c.p.s. and it is believed that this is in error. From the interpretation of the logs only one hole, hole 73 had near ore grade material (0.08 eU_3O_8 at 432.5-433.5). The eU_3O_8 in the remaining four mineralized holes ranged from .02 to .06. The depth range of the mineralization is about 430 to 510 feet below the collar.

The MF-104 and 104A forms were corrected by the operator to include the amounts that were in error on the December report. Corrections are noted on the forms.

It is recommended that the operator be paid $16,796.99 or the Government's share at 75 percent of $22,395.98 which is the total amount claimed less $14.56 the amount disallowed. ($22,410.54 - $14.56 = $22,395.98) The contract expires May 1, 1958.

E O Binyon

EOB/mw cc: 6 Idm-E1133 chron

E. O. Binyon, mining engineer

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

UL6-3468

P.O. BOX 428

February 15, 1958

DMEA
DEPARTMENT OF THE INTERIOR
FEB 21 1958
REGION III
DENVER, COLORADO

Report on Work Accomplished Under Stage II
Exploration Project Contract
McAlester Fuel Company
Docket No. DMEA 4743 (Uranium)
Contract No. Idm-E 1133

Introduction

All drilling under Stage II of the above named contract was completed on February 14, 1958. The drilling was restricted to the same property as the Stage I drilling reported on December 16, 1957, and was confined to offset drilling from holes of significant mineralization and favorable sands as stated in paragraph one of Stage II of the subject contract. Thirty-seven (37) rotary non-core holes were drilled and two (2) Stage I drill holes deepened during the Stage II program. The total Stage II drilling is 19,592 feet. Drill holes 80 and 83, approved by the DMEA Field Team were not drilled for reasons established subsequent to the request and approval. The advisability of drilling these holes was discussed with the DMEA Field Team and verbal authorization was given to cancel holes 80 and 83.

Exploration Drilling

Drilling under Stage II was started on January 2, 1958 and terminated on February 14, 1958. The drilling was done with two Failing and one Mayhew drill. Samples were collected and stored from both air and water circulated mediums.

Drill hole locations were surveyed with transit, and are plotted on the accompanying map with reference to U. S. Coast and Geodetic Survey

coordinates. Accompanying cross sections are east-west, looking north and conform to the north coordinates as shown on the drill hole location map.

Drill holes 7 and 9 were deepened as part of the Stage II drilling. It was decided that a savings could be made by deepening these holes rather than drilling new offsets. Hole 7 had previously been drilled to 250 feet. It was necessary to ream and re-drill this hole from a depth of 120 feet. Hole 9 was almost completely caved and needed to be re-drilled from 18 feet. A savings of $138.00 was made in deciding to re-enter the old holes 7 and 9.

Sampling and Drill Hole Probing

Samples were logged lithologically and checked for radioactivity with a Model 111B Scintillation Counter. Samples were collected and saved from each two foot interval, with duplicate samples taken for assay purposes from intervals that gave two or more times background count.

All holes were probed by Century Geophysical Corporation, Uranium Division, Grand Junction, Colorado. Probe records accompanying this report show Gamma, resistivity, and self potential curves. The accompanying chart of drill hole depths also gives information on mineralization encountered. The thickness of the intercept is taken from the deflection of the gamma curve and the counts per second (c.p.s.) given is maximum. The correlation curve attached to the Stage I report has been found to be 20% low, based on probing through extreme mud cake that is evident in the drill holes.

Geology and Mineralization

The Stage II drilling confirmed the presence of significant, wide spread mineralization in the Lakota formation. The Stage II drilling has

confirmed the presence of a color change in the Lakota sandstone coincident with the mineralization in holes 71, 72, 73, 76 and 78. The mineralized holes are all bordering an undrilled area to the east. It is interesting that the mineralization is increasing going eastward, and that a definite color change in the sands of the mineralized area is noticeable. At present there is insufficient data to correctly map this zone of color change and successfully predict the trend. However, the presently known position of the color change is a gradational contact striking northwest-southeast. East of this line the mineralization may extend along the strike and increase in grade and thickness.

Visible carnotite mineralization was found in hole 71. Samples from hole 71 assayed .05 and .06% U_3O_8 for six (6) feet. Higher grade assays were made from hole 54. Please refer to the attached assay data sheet.

Cross section maps included with this report show lithology based on sample description and electric logs. Stratigraphic units were easily picked from drill cuttings and experience gained in the Stage I drilling.

To date both Stage I and Stage II drilling have been successfully completed. Known geologic factors gained from Stage I drilling aided in keeping most of the Stage II holes in mineralization. The significant mineralized sections of Stage II drill holes suggest wide spread low grade, thick, sandstone type mineralization covering many acres. Stage III drilling may well indicate sufficient grade and tonnages to warrant core drilling and development.

Respectfully submitted,

Robert Ford

Robert Ford

STAGE II DRILLING

Hole No.	Total Depth	DMEA Sponsored	Additional Drilling	Footage	Mineralized Counts per Second
M-7	510'	390'	Stage I		
M-9	520'	502'	Stage I	479-496	85
M-51	485'	485'			
M-52	480'	480'			
M-53	500'	500'			
M-54	545'	545'		419-443 446-455	200 240
M-55	510'	510'			
M-56	536'	536'			
M-57	545'	545'		453-463 465-480 503-515	110 170 100
M-58	515'	515'			
M-59	526'	526'			
M-60	555'	555'		369-388 395-415	140 130
M-61	500'	500'			
M-62	550'	550'			
M-63	515'	515'			
M-64	480'	480'			
M-65	480'	480'			
M-66	500'	500'			
M-67	505'	505'			
M-68	300'	300'			
M-69	300'	300'			
M-70	300'	300'			
M-71	536'	536'		427-457 491-515	240 210
M-72	552'	552'		433-444 521-530	55 280

Hole No.	Total Depth	DMEA Sponsored	Additional Drilling	Mineralized Footage	Mineralized Counts per Second
M-73	550'	550'		421-443	305
				495-501	160
M-74	552'	552'		463-473	55
M-75	540'	540'			
M-76	545'	545'			
M-77	536'	536'		427-442	55
				444-466	265
M-78	555'	555'			
M-79	538'	538'			
M-81	510'	510'			
M-82	545'	545'			
M-84	515'	515'		321-329	40
M-85	555'	555'		420-425	110
M-86	514'	514'		325-331	50
M-87	515'	515'		350-364	35
M-88	470'	470'			
M-93	545'	545'			
	Total:	19,592			

CHEMICAL ANALYSIS REPORT
FOR
McALESTER FUEL COMPANY

Uranium Center Laboratory
915 Elk Drive
Riverton, Wyoming

Lab. No.	Sample No.		$\%U_3O_8$
42-1	Hole 71	460-462	.05
42-2	Hole 71	462-464	.05
42-3	Hole 71	464-466	.06
43-21	Hole 54	452-454	.07
43-22	Hole 54	476-478	.03
43-23	Hole 54	478-482	.02

Assayer - John K. Schneider
A.E.C. Umpire Analyst

Statement

A. R. ORMSBEE

Drilling Contractor

315 20th Stre | Box 255 | Boulder, Colorado

Date February 19, 1958

M Mr. Tom Garrard

McAlester Fuel Company

McAlester, Oklahoma

The following statement is per our contract on the drilling of McAlester Fuel Company property near Edgemont, South Dakota		
19,592 feet drilling @ $1.00/foot	19,592	00
43 hours standby time @ $10.00	430	00
Total:	$20,022	00

Form MF-124 (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

RECEIVED JAN 20 1958 D.M.E.A.

Month of November, 1957 Docket No. DMEA 4742 Contract No. Idm-E 1133
Operator's Name McAlester Fuel Company Minerals Uranium
Address McAlester, Oklahoma
Contract Amount, $ 72,136.00 Government Participation: 75 % Amount, $ 54,102.00

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	17,581.00		17,581.00			
Bulldozing						
Crosscutting						
Drifting						
Standby Time	240.00		240.00			
(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	39.00		39.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Unit Cost Contingency	2,099.72		2,099.72			
TOTALS	19,959.72		19,959.72	19,959.72	—	19,959.72

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 12-20-57 *Payee McAlester Fuel Co
Per John E. Garnard Title Vice pres.

*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:

$14,969.79

Signature RRA
(Authorized Certifying Officer)

Date 1-15-58 Vou. No. DMA-58-79

(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. Jdm E-1133 in accordance with the terms of the contract.

Signature E O Dinyon ($14,977.29) Title Mining Engineer Date January 7, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W H King Title Executive Officer Date JAN 1 0 1958

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
Stage I Completed

Month of November 1957 Docket No. DMEA 4742 Contract No. Idm-E 1133
Operator's Name McAlester Fuel Company Minerals Uranium
Address McAlester, Oklahoma

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								
~~Core~~ Nonecore	1 ft	17,581.00	17581	17,581.00	17581	1.00		
~~Auger~~ Bulldozers	1 hr	none	none	none	none	none		
~~Stripping~~ Standby	1 hr	240.00	24	240.00	24	10.00		
~~Trenching~~ Chem. Assays	1	39.00	13	39.00	13	3.00		
Test Pits								
Roads and Trails								
Contingencies	1 ft	2,099.72	17581	2,099.72	17581	0.12		
TOTAL DISTRIBUTED COSTS		19,959.72		19,959.72				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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 12-20-57 Operator McAlester Fuel Co.

Per Tom E. Garnard Title Vice pres.

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.

REMARKS:

(Instructions on reverse)

W Bmyon

(For Government use only)

DMEA
DEPARTMENT OF THE INTERIOR
DEC 23 1957
REGION III
DENVER, COLORADO

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

FINAL DISTRIBUTION
MADE JAN 16 1958

224 New Customhouse
Denver 2, Colorado

January 10, 1958

1/20 C
20 cem
220
100
800

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4742 (Uranium) Contract Idm-81133, McAlester Fuel Company (Star claims and leased land) ~~Fall River~~ County, South Dakota - Operator's Monthly Progress Report for the month of November 1957

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

The work is being performed partly under independent subcontract and partly at fixed unit costs. The drilling rates are as low or lower than the rates contained in the lowest and best bid submitted with the application. Under the circumstances, the rates for the work performed under independent subcontract are considered to be reasonable.

We consider that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount reported on Form MF-104 for November 1957, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Form MF-104, Operator's Monthly Report and Voucher for November 1957, contains an arithmetical error of $10.00 under Unit Costs. In addition, the Operator has not properly reported the cost of analyses. In both cases the Operator had reported less that the allowable cost. We will inform the Operator to make the necessary adjustments on the next reports submitted on voucher and accounting Forms MF-104 and MF-104A.

REMARKS:

Date of Report ---------- December 20, 1957
Date Received in Field Office ---------- December 24, 1957
Date Received in Region Office ---------- January 8, 1958

W. H. King

Enclosures
JDC:jy
cc: Chm.Op.Comm. (2)
DMEA,DFC
MF-104 file, Reg. III
Marshman w/copy of Engr's. report
Amsend Chron.

DMEA
DEPARTMENT OF THE INTERIOR

JAN 8 - 1958
REGION III
DENVER, COLORADO

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
January 7, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. O. Binyon

Subject: Docket DMEA 4742 (Uranium) Contract Idm-81133,
McAlester Fuel Company, (Star claims and leased land)
Fall River County, S. D. -- Progress report for November 1957

An inspection of the property was made December 3, 1958 in company with Don H. Richter, U. S. Geological Survey.

The location and depths of the 46 holes drilled during the period were found to be as shown on the map and as reported by the operator. Two extra holes, Nos. 47 and 48, were drilled at company expense, to a depth of 260 and 275 feet respectively. This footage is not claimed for payment in the MF-104 and 104A.

As reported by the operator, the radiometric logs show mineralization in 10 holes in the Lakota formation and 1 hole (hole 46) in the Fall River. Although the mineralization (as reported) is weak, .05 and .06 percent eU_3O_8 in holes No. 2 and 3 being the highest, a check of the logs show them to be even lower inasmuch as no deduction of the back ground was made in some instances. In the case of holes 2 and 3 the eU_3O_8 as interpreted from the logs should be .03 and .04 percent.

A check of the MF-104 and 104A show them to be in order except that the amount claimed for "Incidental Allowances" should be $2,109.72 instead of $2,099.72 the amount shown on the forms. The operator has submitted driller's invoice for 18,656 feet of drilling and 24 hours of standby time but has claimed only 17,581 feet and the 24 hours for payment. Also the operator submits a duplicate of the assay certificate and invoice for 13 assays at a price of $3.00 per assay, where as the contract stipulates a cost of $3.50 per assay.

All work was done in conformance with the contract terms and it is recommended that the operator be paid $14,977.29 which is the Government's share at 75 percent of $19,969.72 ($19,959.72 plus $10.00 error in Incidental Allowance).

Expiration date of the contract is May 1, 1958.

E O Binyon

EOB/mv cc: 6 Idm-K1133 chron

E. O. Binyon, Mining Engineer

Statement

A. R. ORMSBEE

Drilling Contractor

315 20th Stre | Box 255 | Boulder, Colorado

Date December 13, 1977

Mr. Ken Gerard, Vice President

Colester Fuel Company

Colester, Colorado

The following statement is per our contract on the drilling of Colester Fuel Company property near Edgewater, South Dakota.		
10,455 feet drilling @ $1.00/foot	10,455	00
20 hours standby time @ $10.00	200	00
Total:	$10,655	00

O.K. Chuck Ford

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

P.O. BOX 428

UL6-3468

December 16, 1957

DMEA
DEPARTMENT OF THE INTERIOR
DEC 20 1957
REGION III
DENVER, COLORADO

REPORT ON WORK ACCOMPLISHED UNDER STAGE I

Exploration Project Contract
McAlester Fuel Company
Docket No. DMEA 4742 (Uranium)
Contract No. Idm-E 1133

INTRODUCTION

All drilling under Stage I of the above named contract was restricted to the Star claims and Leased Lands in Fall River County, South Dakota. This property is located in Township 9 south and Range 3 and 4 east, in the Flint Hill Quadrangle. Forty-eight rotary non-core holes were drilled totaling 19,374 feet. Total allowed footage based upon the DMEA contract was 17,581 feet. The attached map shows the location and depth of all drill holes to date.

EXPLORATION DRILLING

Drilling under Stage I was started on November 9, 1957 and completed on November 12, 1957. The drilling was done with two Mayhew and one Failing drills. Dust samples were collected with a drilling medium of air, and water circulated samples were collected from extreme depth and wet rock. All samples, air and water borne, were collected at two foot intervals.

Drill hole locations were surveyed with transit, and are plotted on the accompanying map with reference to U. S. Coast and Geodetic Survey coordinates for the State of South Dakota. Accompanying cross sections are east-west, looking north and conform to the north coordinates as shown on the drill hole location map.

SAMPLING AND DRILL HOLE PROBING

Samples were logged lithologically and checked for radioactivity with a Model 111B Scintillation Counter. Samples were collected and saved from each two foot intervals, with duplicate samples taken for assay purposes from intervals that gave two or more times background count. It is usually the case with continuous drilling that a lag in samples can be expected. Therefore, the highest assay does not always conform to the peak radioactivity as shown by the drill hole probe readings. Also, the circulating medium has lost much of the uranium values.

All holes were probed by Century Geophysical Corporation, Uranium Division, Grand Junction, Colorado. Probe records accompanying this report show Gamma, resistivity, and self potential curves. The accompanying chart of drill hole depths also gives information on mineralization encountered. The thickness of the intercept is taken from the deflection of the gamma curve and the counts per second (c. p. s.) given is maximum. The attached correlation curve resolves the c. p. s. into actual grade of ore based on Century logs in ore of similar mineralogy.

GEOLOGY AND MINERALIZATION

The Stage I drilling confirmed the presence of the upper Fall River fluvial sandstone - mudstones, and the Gould channel sandstones or unit 3_4 on U. S. G. S. MF maps 63-66. The sandstone-mudstone ratio of the Lakota formation varies with a lateral gradation from thick sandstone units to mudstone facies near the east and west property boundaries.

Resistivity and self potential logs on the drill holes were a great aid in picking sandstone lenses and mudstone-siltstone rock where extreme lost circulation drilling made accurate sampling almost impossible. Isopach maps

are being developed on the thickness of the Gould channel sandstone and the Lakota sandstone trend. These maps will be included with the formal request for Stage II drilling.

Cross section maps included with this report show lithology based on sample description and electric logs. Said cross sections conform to the coordinate system of the plan map and have a similar horizontal scale but exaggerated vertical scale of 1"=100'.

Definite stratigraphic units were extremely difficult to pick from drill cuttings. The alternating sandstone-mudstone in the Fall River and top of the Lakota formation, together with the variable thickness of the Fuson formation made formation contacts difficult to pick with repeated reasonable correlation. The sandstone interbedded with the Fuson or near the top of the Lakota was impossible to pick from the Gould channel sandstones in some drill holes. The distinctive outcrop features of the Gould sandstone were lost in the air or water borne samples.

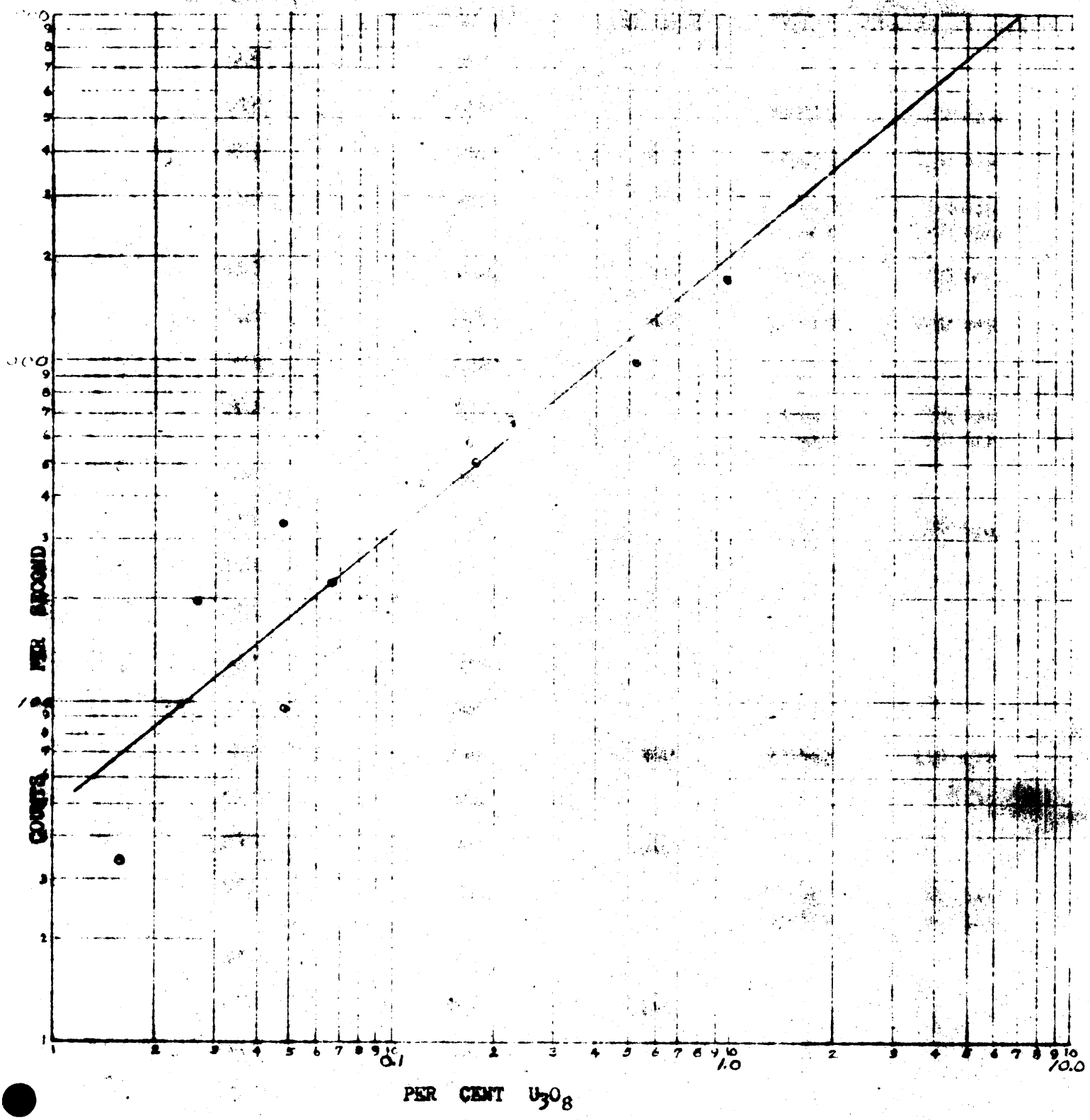
The electric logs have proven the most able method of correlating the Gould channel sandstones by showing an extremely high self potential and resistivity curve. These logs together with lithology description, attached to this report, have made the correlation of the Gould channel sands possible.

Respectfully Submitted,

Robert Ford

Robert Ford

CORRELATION CHART



CURVE RELATING COUNTS PER SECOND TO PER CENT U_3O_8

CENTURY GEOPHISICAL CORP.

STAGE 1 DRILLING

HOLE NO.	TOTAL DEPTH	DMEA SPONSORED	ADDITIONAL DRILLING	MINERALIZED FOOTAGE	MINERALIZED COUNTS PER SECOND
1	465	465			
2	485	485		288-302	130 cps
3	515	300	215	345-359	160 cps
4	460	460		305-320 405-418	45 cps 80 cps
5	468	300	168	353-364	22 cps
6	520	300	220	382-400	110 cps
7	250	250			
8	500	500		440-452 475-488	38 cps 38 cps
9	200	200			
10	485	485		440-465	20 cps
11	140	140			
12	170	170			
13	230	230			
14	300	300			
15	560	300	260	495-517	110 cps
16	500	500			
17	500	300	200		
18	520	520		475-483 425-233	52 cps 32 cps
19	180	180			
20	495	300	195		
21	240	240			
22	180	180			
23	500	500			
24	180	180			
25	180	180			

STAGE 1 DRILLING

HOLE NO.	TOTAL DEPTH	DMRA SPONSORED	ADDITIONAL DRILLING	MINERALIZED FOOTAGE	MINERALIZED COUNTS PER SECOND
26	500	500			
27	498	498			
28	148	148			
29	436	436		420-429 350-361	28 cps 50 cps
30	470	470			
31	180	180			
32	140	140			
33	500	500			
34	450	450			
35	534	534			
36	520	520			
37	500	500			
38	500	500			
39	500	500			
40	560	560			
41	400	400			
42	530	530			
43	545	545			
44	530	530			
45	575	575			
46	600	600		192-200	30 cps
47	260		260	180-188	45 cps
48	275		275	220-225	60 cps
TOTALS	19,374	17581	1793		

URANIUM CENTER LABORAT[illegible]
9[illegible]5 [illegible] DRIVE
RIVERTON, WYO.
Phone UL 6-2579

Chemical Analysis Report for:

Mc Allester Fuel
(Ford & Fox

12/15/57

Lab. No.	Customer's Sample No.	% U_3O_8
3382-1	Hole #4, 416	nil
11-2	" " 418	0.01
11-3	" " 422, 424	0.02
11-4	" #15 108-110	0.02
11-5	" #15 110-112	0.01
11-6	" " 112-114	0.01
11-7	Raby #4 418-420	0.02
11-8	" #47 70-72	0.01
11-9	" " 184-186	0.01
11-10	48, 203-204	[illegible]
11-11	48, [illegible]-206	[illegible]
11-12	47, 188-190	0.01
11-13	47, 186-188	[illegible].01

Assayer---John K. Schneider
A.S.[illegible] Uranium Analyst

No. Assays 13 at 3.00 each = 39.00

Credit Balance _____ Balance due _____

Total due 39.00

HOLE NO. M-1

J. O'Leary

0-2	Overburden with fragments of buff sandstone.
2-14	Brown fine-grained sandstone. Some quartzite at 12-14 feet.
14-20	Laminated dark siltstone and white fine-grained sandstone. Increase in proportion of siltstone with depth. Some gypsum at 18-20.
20-24	Buff, fine-grained, silty sandstone with trace of limonite and some gypsum.
26-28	Buff, fine-grained, silty sandstone. Some lamination.
28-46	Black sandy (very fine grained), mudstone.
46-86	Reddish-black fine-grained sandstone. Trace of hematite at 50-52. Turns white at 52. Becomes coarser with depth. Buff from 82 to 86.
86-130	Dark gray, very fine to fine-grained silty sandstone with stringers of mudstone throughout.
130-160	Buff fine to medium-grained sandstone.
160-166	Dark gray fine-grained silty sandstone.
166-174	Dark gray fine-grained silty sandstone with some mudstone.
174-328	Gray fine-grained sandstone. Some black mudstone at 188-190, 232-236. Color changes at 236 to buff, to pink, to white. Some black mudstone at 300 to 310. Color from 310 to 328 - light gray.
328-332	Black sandy (very fine-grained) carbonaceous (?) mudstone.
332-336	Light gray fine-grained sandstone.
336-350	Black sandy (very fine-grained) carbonaceous (?) mudstone.
350-356	Light gray fine-grained sandstone.
356-360	Black carbonaceous (?) mudstone.
360-384	Light gray to pink fine-grained sandstone.
384-432	Dark gray to gray (very fine-grained) sandy mudstone. Lighter with depth.
432-465	Light gray to white very fine-grained silty sandstone.

APR 22 1959

Mr. Tom E. Garrard, Vice President
McAlester Fuel Company
P. O. Box 783
McAlester, Oklahoma

Re: Docket No. DMEA-4742 (Uranium)
Contract No. Idm-81133
Star Claims and Leased Lands
Fall River County, South Dakota

Dear Mr. Garrard:

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.

We appreciate your interest and participation in the DMEA exploration program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

(signed) FRANK E. JOHNSON

ACTING Director

FMMurphy/gla
2-3-59
cc to: Director's Reading File
Div. of Contract Adm. & Audit
FMMurphy
OME Field Team, Region III (2)

Audit's copy

TERMINATION AGREEMENT

It is agreed this 19th day of August, 1958, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and the McAlester Fuel Company, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E1133 (Docket No. DMEA-4742), dated September 19, 1957, hereinafter called the "Contract," that:

1. Effective March 12, 1958, 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 agreed actual and unit costs of work performed prior to March 12, 1958.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and final account.

4. All rights of the Government respecting certification of discovery or development, percentage royalty and liens to secure the payment thereof, reports (including preservation of Operator's records), accounts, audits, and the right to recover any overpayment, are preserved.

5. The Operator 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 C. Mittendorf
Administrator, Defense Minerals Exploration Administration

McALESTER FUEL COMPANY

By Tom E. Garrard

Title VICE-PRESIDENT

224 New Customhouse
Denver 2, Colorado
August 26, 1958

CODE
800

CERTIFIED MAIL

Mr. Robert Ford
Ford & Fox, Consulting Geologists
206 South Broadway
P. O. Box 488
Riverton, Wyoming

Re: Docket No. DMEA 4742 (Uranium)
Contract Idm-E1133
MCAlester Fuel Company
(Star claims and Leased lands)
Fall River County, South Dakota

Dear Mr. Ford:

Reference is made to your letter of July 19, 1958, wherein you request that the contract be amended to provide for additional exploration to the cost of the original Stage I drilling.

After thorough review of your request, and other data available to the Government, it is the decision of the Government that the additional work is not warranted, therefore your request for an amendment to provide the additional work is denied.

As all approved work has been completed and the additional work will not be approved, we are enclosing the Government's, Audit, Finance Office, and Field Team copies of a proposed TERMINATION AGREEMENT, which has been prepared to terminate Contract Idm-E1133, effective March 12, 1958.

If the proposed Termination Agreement is satisfactory, all copies are to be signed by an official of McAlester Fuel Company authorized to sign such an instrument, the signer's title inserted, the corporate seal affixed, and all copies promptly returned to this office, upon receipt of which, the "Operator's Copy" will be forwarded to you.

In the event the proposed Termination Agreement is not satisfactory, all copies are to be promptly returned to this office, together with your objections thereto.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III

JDC:hmh
cc: Admn. Op. Comm. (2)
Harshman
Kinyon, DMEA/DFC
Corres. file, Reg. III
Cooper
Chron

EXPEDITE
RECEIVED 7 1958
DATE
CODE
800

224 New Customhouse
Denver 2, Colorado
March 5, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4742 (Uranium), Contract No. Idm-E1135, McAlester Fuel Company (Star claims and leased lands), Fall River County, South Dakota

Enclosed are the following pertaining to operations under the subject contract:

1. Three copies of the Field Team's letter of March 3, 1958 confirming verbal approval issued February 11, 1958 for the drilling of six offset holes under Stage III of the contract.

2. Two sets of data consisting of the Operator's letters of February 10 and February 19, 1958 pertaining to the drilling.

3. Three copies of a joint memorandum, dated February 26, 1958, from E. O. Binyon, Mining Engineer, Bureau of Mines, and D. H. Richter, Geologist, Geological Survey, recommending the additional drilling.

Copies of the confirmation of verbal work approval have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

Original signed by
W. H. KING
W. H. King

Enclosures

JWT:prl

cc: Finance Office, Region III) w/copy of confirmation of work approval.
Harshman) w/copy of material under items 1 and 3.
DMEA/DFC(Binyon))
Corres. file - w/copies of enclosures 1,2,and 3.
Townsend
Chron.

extra

[illegible] Bar Buildings
Denver 2, Colorado

March 3, 1958

Mr. Robert Ford
Consulting Geologist
P. O. Box [illegible]
Riverton, Wyoming

Re: Contract No. [illegible] 4742 (Uranium)
Contract No. [illegible]-[illegible]133
Mallinckrodt Fuel Company
(Four claims and leased lands)
Fall River County, South Dakota

Dear Mr. Ford:

In reference to your requests of February 10 and 19, 1958, this confirms verbal approval by the Government, given February 11, 1958, for the drilling of the following six offset holes under the provisions of Stage III of the Contract:

Stage II Hole to be Offset	Reference No. of Approved Offset Hole	Location of Approved Offset Hole	Approximate Depth of Approved Offset Hole
54	96	850 ft. E. of 54	345 feet
	97	850 ft. S. of 54	345 feet
71	93	850 ft. E. of 71	345 feet
	94	850 ft. W. of 71	345 feet
75	95	850 ft. E. of 75	345 feet
	98	850 ft. W. of 75	345 feet
Totals	6 holes		3,870 feet.

In addition to the approval of the above listed six offset holes, the Government also concurs in omitting from the drilling hole No. 80, approval for the drilling of which was confirmed by the [illegible] Field Team, Region III, under date of January 28, 1958.

Nothing in this confirmation of work approval shall be construed to increase the estimated total cost of the project, the

aggregate amount which the Government may be required to contribute, the first unit cost of any item of work, any item of allowable cost which is expressly designated "maximum."

Very truly yours,

ERDA Field Team, Region III

By W. H. King
W. H. King

By E. M. Hawkins
E. M. Hawkins

cc: Mr. Wm R. Gerrard
Vice President
McAlester Fuel Company
P. O. Box 783
McAlester, Oklahoma

JWE:prl

cc: Chem. Op. Comm. (3)
Finance Office, Region III
Amendment file, Region III
Earnhamm
ERDA/DPC (Minyon)
Corres. file
Townsend
Chron.

IN REPLY REFER TO:

DMEA

DEPARTMENT OF THE INTERIOR

FEB 27 1958

REGION III

DENVER, COLORADO

UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Defense Minerals Exploration Administration

Denver Federal Center

Denver, Colorado

February 26, 1958

COPY
DMEA
RECEIVED MAR 7 1958
DATE CODE

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. W. Harshman

From: E. O. Binyon
D. H. Richter

Subject: Docket DMEA 4742 (Uranium), Contract Idm-S 1133, McAlester Fuel Company (Star claims and leased lands), Fall River County, South Dakota

On February 4, 1958, the operator was given verbal authorization to deepen Stage I holes 7 and 9 and to drill hole 93 under the provisions of Stage II of the subject contract. Upon completion of this work, the operator in a letter of February 10, 1958, requested (1) an additional 6 holes, under Stage II, and (2) the deletion of hole 80, which had been authorized earlier under Stage II.

The additional 6 holes were designed to test on 500-foot offsets zones of slight mineralization (0.02-0.06 percent eU_3O_8) in the lower Lakota formation encountered in holes 7, 75, 77, and relatively higher grade mineralization (0.09 percent eU_3O_8) in hole 71. Examination of the available data, now indicates that the highest anomalous radioactivity is in the vicinity of holes 54, 71, and 73 with a fairly rapid decrease in radioactivity to the east, south, and west; the anomaly may continue to the north beyond the property boundary. Although drilling in this area has been on a wide spaced 500-foot grid, it appears that sufficient holes

have been drilled to adequately outline the area of strongest mineralization and that additional drilling on 500-foot centers would not be to the best interest of the Government, nor would it materially add to the general information now at hand. The situation was discussed with the operator on February 11, 1958, who, without strong geologic convictions to substantiate the additional Stage II work, agreed to terminate the Stage II drilling. At the same time it was mutually agreed upon and verbally recommended to drill six Stage III 250-foot offset holes around the principal mineralized holes found under Stage II.

No recommendations were made concerning hole 80; completion or deletion of the hole was left to the discretion of the operator.

Details of the work approved are as follows:

Stage II hole to be offset	Offset holes	Location	Approximate depth (feet)
54	96 (54E)	250' E of 54	545
	97 (54S)	250' S of 54	545
71	95 (71E)	250' E of 71	545
	94 (71W)	250' W of 71	545
73	99 (73E)	250' E of 73	545
	98 (73W)	250' W of 73	545
Totals	6		3,270

D. H. Richter

D. H. Richter, Geologist

E. O. Bingon

E. O. Bingon, Mining Engineer

DHRichter:arh

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

P.O. BOX 428

UL6-3468

February 19, 1958

DMEA
DEPARTMENT OF THE INTERIOR
FEB 21 1958
REGION III
DENVER, COLORADO

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

Re: Docket No. DMEA 4742 (Uranium)
Contract No. Idm-E 1133
McAlester Fuel Company

Dear Mr. King:

Under the terms of the above named contract, this letter is a request for drilling under the Stage III program. The following drill holes are requested on the basis of mineralization and on the basis of significant mineralization found in the Stage II drilling and so reported in my report on Stage II drilling dated February 15, 1958.

Hole No.	Hole Offset	Depth	N. Coordinate	S. Coordinate
94	71 west	545'	368,400	1,104,750
95	71 east	545'	368,400	1,105,250
96	54 north	545'	368,150	1,105,000
97	54 south	545'	367,650	1,105,000
98	73 west	545'	367,400	1,104,750
99	73 east	545'	367,400	1,105,250

These six requested holes total 3,270 feet and are the first requested drill holes of the Stage III program.

Very truly yours,

RF:cjb
encl 5
CC: Mr. Tom Garrard, Vice President
McAlester Fuel Company
P. O. Box 783
McAlester, Oklahoma

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

P.O. BOX 428

UL6-3468

February 10, 1958

DMEA
DEPARTMENT OF THE INTERIOR
FEB 12 1958
REGION III
DENVER, COLORADO

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

Re: Docket No. DMEA 4742 (Uranium)
Contract No. Idm-E 1133
McAlester Fuel Company
Fall River County, South Dakota

Dear Mr. King:

Verbal authorization given February 4, 1958, to deepen holes 7 and 9 and drill hole 93 was received from Mr. Michter. This drilling has been completed and McAlester Fuel Company is herein requesting additional drilling under Stage II of the subject contract.

Drill hole 93 as shown on the accompanying map was drilled to the Morrison contact without significant mineralization. Drill holes 7 and 9 were deepened with significant mineralization in the zone expected. No offsets are being asked for drill hole 9 at this time. Drill hole 7 contained mineralization comparable to hole 72 and offsets to the north and east are requested. Offsets to hole 71 are requested 500' east and 500' west, 500' east offsets to holes 75 and 77 are also requested.

Information from holes 81, 82 and 84 show the inadvisability of drilling hole 80. Therefore, it is requested that hole 80 be deleted from your confirmation of January 28. To date it is estimated that the total drilled and confirmed Stage II drilling is 18,742 feet. Hole 80 has been omitted from this total. A request is made that the following holes constitute the final drilling under Stage II of the subject contract.

Hole No.	Hole Offset	Depth	N. Coordinate	E. Coordinate
89	7	545	367,900	1,106,500
90	7	545	368,400	1,106,000
94	75	540	367,400	1,106,500
95	77	540	366,400	1,106,500
96	71	540	368,400	1,104,500
97	71	540	368,400	1,105,500

It is estimated that the total footage drilled under Stage II, if the above requested holes are completed, will be 21,992 feet.

Very truly yours,

REF:cjb
CC: Mr. E. N. Marshman
U. S. G. S., DMEA
Building 25
Denver Federal Center
Denver, Colorado

Mr. E. O. Benyon
Bureau of Mines, DMEA
Denver Federal Center
Denver, Colorado

Mr. Max Hartle
P. O. Box 896
Edgemont, South Dakota

Mr. Tom Garrard
McAlester Fuel Company
McAlester, Oklahoma

EXTRA COPY
DMEA
RECEIVED MAR 7 1958
DATE | INITIALS | CODE
800

224 New Customhouse
Denver 2, Colorado

March 5, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4742 (Uranium), Contract No. Idm-E1133, McAlester Fuel Company (Star claims and leased lands), Fall River County, South Dakota

Enclosed are the following, pertaining to operations under the subject contract:

1. Three copies of the Field Team's letter of March 3, 1958 confirming verbal approval issued on February 25, 1958 for the drilling of three offset holes under Stage III of the contract.

2. Two copies of the Operator's request, dated February 20, 1958, for approval of the drilling.

3. Three copies of a joint memorandum, dated February 27, 1958, from D. H. Richter, Geologist, Geological Survey, and E. O. Binyon, Mining Engineer, Bureau of Mines, recommending the work approved.

Copies of the confirmation of verbal work approval have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

Original signed by
W. H. KING
W. H. King

Enclosures

JWT:prl

cc: Finance Office, Region III) w/copy of confirmation of work approval.
Harshman) w/copy of material under items 1 and 3.
DMEA/DFC (Binyon))
Corres. file - w/copy of enclosures 1, 2, and 3.
Townsend
Chron.

DMEA
RECEIVED MAR 7 1958
CODE

DMEA Raw Materials
Denver 2, Colorado
March 5, 1958

Mr. Robert Ford
Consulting Geologist
P. O. Box 448
Riverton, Wyoming

Re: Contract No. DMEA 4742 (Uranium)
Contract No. Ida-2113
Hollister Fuel Company
(Bear claims and leased lands)
Fall River County, South Dakota

Dear Mr. Ford:

In reference to your request, dated February 20, 1958, this confirms verbal approval by the Government, given on February 25, 1958, for you to drill the following listed three offset holes under the provisions of Stage III of the Contract:

Stage II & III Hole to be Offset	Reference No. of Approved Offset Hole	Location of Approved Offset Hole	Approximate Depth of Approved Offset Hole
71	100	850 ft. E. of 71	545 feet
95	101	850 ft. E. of 95	545 feet
	102	850 ft. E. of 95	545 feet
Totals	3 holes		1,635 feet.

Nothing in this confirmation of work approval shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

JWKgrl
cc: Chem. Op. Comm. (3)
Finance Office, Region III
Assessment file, Region III
Barshman
DMEA/MPC (Mayson)
Corres. file
Transmittal

Very truly yours,

DMEA Field Team, Region III

By W. K. King
W. K. King

By E. H. Barshman
E. H. Barshman

cc: Mr. Tom E. Sherard
Vice President
Hollister Fuel Company
P. O. Box 703
Hollister, Oklahoma

Corres.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

DMEA
DEPARTMENT OF THE INTERIOR
MAR 3 - 1958
REGION III
DENVER, COLORADO

February 27, 1958

EXTRA COPY
DMEA
RECEIVED MAR 7 1958

DATE		CODE

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. N. Hartmann

From: D. H. Richter
E. O. Binyon

Subject: Docket DMEA 4742 (Uranium) Contract Idm-E 1133, McAlester Fuel Company (Star claims and leased lands), Fall River County, South Dakota

In a letter dated February 20, 1958, and in a telephone conversation of February 25, 1958, the operator notified the Field Team that the six (nos. 94-99) Stage III drill holes authorized February 11, 1958, had been completed. One of these holes--no. 95, the 250-foot east offset of hole 71--encountered at a depth of 508 feet, about 3 feet of 0.14 percent eU_3O_8, the highest grade material yet found under the program. The other holes apparently were only mineralized.

The operator also requested in his letter approval to drill three additional Stage III offset holes to the north, northwest, and east of hole no. 95. Although the depth of the mineralized horizon now precludes consideration of 0.14 percent eU_3O_8 as significant, the possibility remains, because of the increase in grade to the northeast, that a significant deposit may be present in the area. On this basis the additional three offset holes as requested by the operator are recommended. However, it also appears rather certain now, that if

these holes fail to show an appreciable increase in grade and thickness of mineralization, further work with Government participation cannot be justified.

Specifications of the three recommended additional Stage III holes are as follows:

Holes to be offset	Offset holes	Location	Approximate depth (feet)
	100	250' N of 71	545
95	101	250' N of 95	545
71	102	250' E of 95	545
Totals	3		1,635

On February 25, 1958, the operator was advised, by E. N. Harshman, of the Government's approval of the additional Stage III drilling recommended above.

E. O. Binyon

E. O. Binyon, Mining Engineer

D. H. Richter

D. H. Richter, Geologist

DHRichter:arh

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

P.O. BOX 428

DMEA
DEPARTMENT OF THE INTERIOR

UL6-3468

February 20, 1958

FEB 24 1958
REGION III
DENVER, COLORADO

EXECUTIVE COPY
DMEA
FEB 27 1958
DATE | INITIALS | CODE

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

Re: Docket No. DMEA 4742 (Uranium)
Contract No. Idm-E 1188
McAlester Fuel Company

Dear Mr. King:

Under the terms of the above named contract this letter is a request for additional drilling under the Stage III program. To date we have completed holes 94, 95 and 96 as shown on the accompanying drill hole location map. All holes were favorably mineralized. A copy of the drill hole log from hole 95 is attached hereto. This log shows significant mineralization from 500 to 520 feet. Four (4) feet from 508 to 512 shows ore grade material. Dry air caught samples from this zone may assay as high as 1.5% U_3O_8. We are therefore requesting offset holes to No. 95 and a north offset to hole No. 71 which is apparently in the trend of the higher grade mineralization. The following drill holes are requested.

Hole No.	Hole Offset	Depth	N. Coordinate	E. Coordinate
100	71 north	545'	368,650	1,105,000
101	95 north,	545'	368,650	1,105,250
102	95 east	545'	368,400	1,105,500

The three holes above requested total 1,635 feet. If these are approved the total approved drilling for Stage III under the subject contract will be 4,905 feet.

Very truly yours,

Robert Ford

RF:cjb
encl

CC: Mr. E. N. Harshman
U. S. G. S., DMEA
Building 25
Denver Federal Center
Denver, Colorado

Mr. E. O. Renyon
Bureau of Mines, DMEA
Denver Federal Center
Denver, Colorado

Mr. Tom Garrard
McAlester Fuel Company
McAlester, Oklahoma

Mr. Max Hartle
P. O. Box 896
Edgemont, South Dakota

224 New Customhouse
Denver 2, Colorado

FEB 18 1958

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4742 (Uranium), Contract No. Idm-E1133, McAlester Fuel Company (Star claims and Leased Lands), Fall River County, South Dakota

Enclosed are three copies of confirmation of verbal work approval issued by the DMEA Field Team, Region III.

Also enclosed are two copies of the Operator's letter of January 31, 1958, with attached data, and three copies of a joint memorandum, dated February 10, 1958, from E. O. Binyon, Mining Engineer, Bureau of Mines, and D. H. Richter, Geologist, Geological Survey, pertaining to the work approved.

Copies of the confirmation of work approval have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

Original signed by
W. H. KING

W. H. King

Enclosures

JWT:prl

cc: Finance Office,
Region III - w/copy of confirmation of work approval.
Harshman) w/copy of confirmation
DMEA/DFC (Binyon)) of work approval and
Corres. file) joint memorandum.
Townsend
Chron.

EXTRA COPY
DMEA
RECEIVED FEB 24 1958
DATE
COR
800

224 New Customhouse
Denver 2, Colorado

February 14, 1958

Mr. Robert Ford
Consulting Geologist
P. O. Box 488
Riverton, Wyoming

Re: Docket No. DMEA 4742 (Uranium)
Contract No. Ida-E1133
McAlester Fuel Company
(Star claims and Leased Lands)
Fall River County, South Dakota

Dear Mr. Ford:

In reference to your letter of January 31, 1958, with attached data, which constitutes your request for the Government's approval of additional drilling under Stage II of the Contract, confirmation of Field Team approval for additional drilling under the provisions of Stage II of the Contract, issued February 4, 1958, is as follows:

1. In lieu of holes Nos. 89 and 90, requested by you, reoccupy Stage I hole No. 7 and extend it to the Lakota-Morrison contact.

2. In lieu of holes Nos. 91 and 92, requested by you, reoccupy Stage I hole No. 9 and extend it to the Lakota-Morrison contact.

3. Drill hole No. 93 to the Lakota-Morrison contact at the approximate location requested by you.

Nothing in this confirmation of verbal approval shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Very truly yours,

DMEA Field Team, Region III

By W. R. King
W. R. King

By E. M. Harshman
E. M. Harshman

JWT:prl
cc: Chmn. Op. Comm. (3)
Finance Office, Region III
Amendment file, Region III
Harshman
DMEA/DFC (Binyon)
Corres. file
Townsend
Chron.
Mr. Tom K. Garrard, Vice President
McAlester Fuel Company
P. O. Box 783
McAlester, Oklahoma

IN REPLY REFER TO:

DMEA
DEPARTMENT OF THE INTERIOR

FEB 13 1958
REGION III
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

February 10, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. N. Harshman

From: E. O. Minyon
D. H. Richter

Subject: Docket DMEA 4742 (Uranium), Contract Idm-E 1133, McAlester Fuel Company (Star claims and leased lands), Fall River County, South Dakota

On January 31, 1958, the operator requested that an additional five holes, totaling 2,725 feet, be approved for Stage II work under the subject contract. These five holes are east and southeast of the area in which Stage II drilling has recently been completed.

Briefly, the reasons for the additional Stage II holes, as given by the operator in his letter and in a later telephone conversation, are as follows:

1) Increase in grade of mineralization eastward from area of recently completed Stage II drilling.

2) Color boundary in Lakota sandstone striking SE along a line that projects through holes 71, 54, 78, and 77, with drab-colored sands to the east and pink sands to the west.

3) Possible major lithologic facies change, in the lower Lakota formation, from predominantly sandstone in the area recently drilled under Stage II, to predominantly mudstone in the same interval 3,000 feet to the southeast and east. The operator believes that ground water conditions between these two areas may have had a pronounced effect on the deposition of uranium.

From the information available to the examiners, the operator's first reason for drilling eastward appears to be without basis. The area of strongest mineralization (holes 54, 71, 73) now appears to be west of the area, in which drilling is requested, with a halo of lesser mineralization extending to the northwest and southeast. The operator's other reasons, i.e., the color and facies change, however, merit consideration, and we have accordingly recommended a limited amount of drilling in an attempt to roughly test areas where these facies changes may have influenced ore deposition, or as in the case of the color change may be a manifestation of ore.

The work recommended consists of deepening Stage I holes 7 and 9, which were only drilled through the upper Lakota Gould channel, to the Lakota-Morrison contact and drilling hole 93--located 1,000 feet south of Stage I hole 8--to the Lakota-Morrison contact. The deepening of the two Stage I holes would effectively and economically substitute for four of the new holes requested by the operator. Total footage required for this work would be 1,185 feet (640 feet to deepen holes 7 and 9, and 545 feet in hole 931. In discussing this modified plan with the operator, the examiners were informed that deepening of the old holes was feasible.

On February 4, 1958, with DMEA Field Team, Region III authorization, the operator was advised of the Government's approval of the additional Stage II drilling recommended above.

E. O. Binyon

E. O. Binyon, Mining Engineer

D. H. Richter

D. H. Richter, Geologist

DHRichter:arh

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

P.O. BOX 428

UL6-3468

January 31, 1958

DMEA
DEPARTMENT OF THE INTERIOR
FEB 3 - 1958
REGION III
DENVER, COLORADO

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

Re: Docket No. 4742
Contract No. Idm-E 1133
McAlester Fuel Company

Dear Mr. King:

Under the terms of the above named contract this letter is a request for additional drilling under Stage II. To date Stage II drilling has been approved by your office in the amount of 19,090 feet as per your letters of January 8 and January 28, 1958.

Under paragraph one of Stage II in the subject contract, McAlester Fuel Company is requesting additional offset drilling from holes of significant mineralization.

The attached map shows all holes drilled and approved to date. Of those holes approved only holes 80, 83, 85, 86, 87 and 88 remain undrilled at this writing. Attached drill logs for holes number 71, 72, 73, 76 and 78 will show signigicant mineralization. Hole 77 was equally well mineralized.

The mileralized holes are all bordering an undrilled area to the east, particularly the SW¼ Sec. 6 and the S½ Sec. 5. It is interesting that the mineralization is increasing going eastward, and that a definite color change in the sands of the mineralized area is noticeable. At present there is insufficient data to correctly map this zone of color change and successfully predict the trend. Apparently, however, the present known position of the color change is a gradational contact striking through holes 71, 54, 78 and 77. West of this line the sandstones are pink. Eastward the pink sands grade into predominantly gray sands at the mineralized horizon and the zones of radioactivity are confined to this contact.

Visible carnotite uranium mineralization was found in drill hole 71. Careful hole probing comparison between those holes drilled dry and those filled with water, mud and cuttings indicate the correlation chart presented in my report of December 16 is conservative by at least 20% and perhaps greater. No assay values have been returned from the last mineralized holes.

The following drill holes are requested to check as much of the eastern trend of mineralization as possible. All holes are offsets of previously drilled mineralized holes.

Hole No.	Hole Offset	Depth	N. Coordinate	E. Coordinate
89	72	545'	367,900	1,106,500
90	71	545'	368,400	1,106,000
91	10	545'	367,900	1,109,000
92	76	545'	366,900	1,108,000
93	15	545'	365,900	1,107,000

These five requested holes total 2,725 feet and will bring the total authorized drilling of Stage II to 21,815 feet. Should this drilling be authorized it is expected that all Stage II drilling shall be completed and reports and cost data submitted to the Denver office by February 12.

Very truly yours,

RF:cjb
CC: Mr. E. N. Harshman
U. S. G. S., DMEA
Building 25
Denver Federal Center
Denver, Colorado

Mr. E. O. Benyon
Bureau of Mines, DMEA
Denver Federal Center
Denver, Colorado

Mr. Max Hartle
Box 896
Edgemont, South Dakota

Mr. Tom Garrard
McAlester Fuel Company
McAlester, Oklahoma

DATE
CODE
800

224 New Customhouse
Denver 2, Colorado

JAN 30 1958

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4742 (Uranium), Contract No. Idm-E1133, McAlester Fuel Company (Star claims and Leased Lands), Fall River County, South Dakota

Enclosed are three copies of a letter from this office, dated January 28, 1958, wherein the DMEA Field Team, Region III, confirms verbal approval for the drilling of eleven holes and the drilling of seven additional holes under Stage II of the contract.

Also enclosed are three copies of the Operator's letter of January 20, 1958, constituting a request for the Government's approval for the work, and three copies of a joint memorandum, dated January 24, 1958, from R. U. King, Geologist, Geological Survey, and E. O. Binyon, Mining Engineer, Bureau of Mines, pertaining to the drilling approved.

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

Original signed by
W. H. KING

W. H. King

Enclosures

JWT:prl

cc: Finance Office, Region III) w/copy of work approval.
Harshman) w/copy of work approval and field memorandum.
DMEA/DFC (Binyon))
Corres. file - w/copies of enclosures.
Townsend
Chron.

EXTRA COPY
RECEIVED 1958
DATE CODE

224 New Customhouse
Denver 2, Colorado
January 28, 1958

Mr. Robert Ford
Consulting Geologist
P. O. Box 425
Riverton, Wyoming

Re: Docket No. DMEA 4742 (Uranium)
Contract No. Ium-E1133
McAlester Fuel Company
(Star claims and Leased Lands)
Fall River County, South Dakota

Dear Mr. Ford:

In reference to your letter of January 24, 1958, which supersedes your letter of January 14, 1958, and consistent with provisions in the Contract, this confirms verbal approval by the Government, issued by this office January 17, 1958, for the drilling of eleven (11) holes as originally requested by you, and approves the drilling of seven (7) additional holes, making a total of eighteen (18) holes approved for drilling under Stage II of the Contract.

The locations of the eighteen approved holes are indicated by the symbol of a circle with numbers 71 to 88, inclusive, affixed, on the map entitled, "Figure 4B - Geologic Map, Showing Recommended Exploration, McAlester Fuel Company, Fall River County, South Dakota," which is attached hereto and made a part of this confirmation of prior verbal approval and approval for additional drilling.

Nothing in this letter shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Very truly yours,

DMEA Field Team, Region III

By W. H. King
W. H. King

By E. M. Harshman
E. M. Harshman

J.T:pal

cc: Chmn. Op. Comm. (3)
Finance Office, Region III
Amendment File, Region III
Harshman
DMEA/DFC (Binyon)

cc: Mr. Tom E. Garrard, Vice President
McAlester Fuel Company
P. O. Box 785
McAlester, Oklahoma

Corres. File
Townsend
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
DEPARTMENT OF THE INTERIOR
JAN 28 1958
REGION III
DENVER, COLORADO

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

IN REPLY REFER TO:
EXTRA COPY
DMEA
RECEIVED FEB 3 1958

DATE	INITIALS	CODE

January 24, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: F. N. Harshman EMH

From: R. U. King
E. O. Binyon

Subject: Docket No. DMEA 4742 (Uranium), Contract No. Idm-E 1133, McAlester Fuel Company (Star claims and leased lands), Fall River County, South Dakota

The operator of the subject contract project requested by letter dated January 14, 1958, additional drilling under Stage II of 11 holes totalling 5,895 feet. Subsequently, on January 17, 1958, he requested verbally to drill 7 more holes totalling 3,815 feet. This was followed by a letter dated January 20, 1958, in which was listed all of the 18 holes referred to and in which he requested that request of January 20 replace the proposal of January 14, 1958.

In the letter of January 20, 1958, the operator requests approval of 18 proposed Stage II holes as offsets to holes 5, 6, 54, 56, 57, 58, and 61. The total drilling requested amounts to 9,690 feet.

In view of the weak mineralization found in 7 out of 10 holes drilled in the northwestern part of the property, and the favorable lithology of the sandstone in this localized area, the

requested Stage II offset drill holes appear warranted, to more adequately explore what now appears to be the most favorable area. The Stage I and II holes for which offsets are recommended gave radiometric anomalies of 25 to 240 cps, or from 0.01 to 0.1 percent equivalent uranium.

It should be noted that with the completion of these holes the minimum spacing allowable for Lakota sandstone (deep) tests is being approached, and therefore further drilling with few exceptions in this area will not be possible under Stage II of the contract.

It is recommended that the operator's request to drill the following Stage II offset holes be approved. Approximate locations of the recommended holes are shown on the accompanying maps (fig. 4B).

Offset hole No.	Hole being offset	Est. Max. depth	N. Coordinate	E. Coordinate
71	54	* 545 ft.	368,400	1,105,000
72	"	" "	367,900	1,105,500
73	"	" "	367,400	1,105,000
74	"	" "	367,900	1,104,500
75	57	540 "	367,400	1,106,000
76	"	" "	366,900	1,106,500
77	"	" "	366,400	1,106,000
78	"	" "	366,900	1,105,500
79	5	545 "	368,400	1,104,000
80	"	" "	367,400	1,104,000
81	"	" "	367,900	1,103,500
82	56	540 "	366,900	1,104,500
83	"	" "	366,400	1,104,000
84	"	" "	366,900	1,103,500
85	6	" "	366,400	1,105,000
86	55	515 "	366,400	1,102,000
87	61	" "	365,900	1,103,000
88	"	525 "	363,900	1,103,000
Est. max. footage		9,690 ft.		

* Depth is to Morrison contact.

R. U. King
Geologist

E. O. Binyon
Mining Engineer

RUKing:mp

ROBERT FORD
MINING GEOLOGIST

P.O. BOX 428

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

BLAKE FOX
PETROLEUM GEOLOGIST

UL6-3468

January 20, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JAN 22 1958
REGIONAL
DENVER, COLORADO

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

Re: Docket No. 4742
Contract No. Idm-E 1133
McAlester Fuel Company

Dear Mr. King:

The enclosed formal request for additional Stage II drilling under the subject contract will replace that proposal made by me dated January 14, 1958. May I suggest that this proposal of January 20 replace the January 14 proposal in your files.

The enclosed proposal includes those offset holes to previously drilled holes 5, 6 and 57 suggested by your staff. You will note that copies have been sent Mr. Harshman and Mr. Benyon and four (4) copies are enclosed for your office.

Very truly yours,

Robert Ford

RF:cjb
CC: Mr. E. N. Harshman
Mr. E. O. Benyon
Mr. Max Hartle
Mr. Tom Garrard

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

P.O. BOX 428

UL6-3468

January 20, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JAN 22 1958
REGION III
DENVER, COLORADO

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

Re: Docket No. 4742
Contract No. Idm-E 1133
McAlester Fuel Company

Dear Mr. King:

Under the terms of the above named contract and as discussed during our meeting in Denver on December 20, 1957, this letter is a request for additional drilling under Stage II. You will recall that in answer to my proposal for work under Stage II, dated December 19, 1957, your office subsequently approved twenty (20) drill holes totaling 9,400 feet.

Under paragraph one of Stage II in the subject contract McAlester Fuel Company is requesting additional offset drilling from mineralized holes or those holes intersecting favorable sands.

The following is a listing of Stage II holes drilled to date, with thickness of the Gould channel sands, Morrison formation contact, mineralization, and sandstone-mudstone ratio of the Lakota formation. This is not intended to be a formal report of work completed under Stage II. However, if the reader will refer this information to maps included with the "Proposals and Recommendations" dated December 19, and the cross sections included with the "Progress Report" dated December 18, this tabulated information can readily be interpreted. A map is attached showing the location of the Stage II holes drilled to date.

Hole No.	Depth	Gould ss.	Mineralization	ss-ms ratio	Morrison Contact
51	485'	86'-134'	None	75	478'
52	480'	94'-118'	285'-294'-23cps	80	468'
53	500'	72'-105'	None	80	490'
54	545'	95'-165'	420'-435'-25cps	78	542'
			435'-442'-200cps		
			446'-455'-240cps		
			478'-486'-30cps		
55	510'	100'-152'	320'-330'-22cps	65	504'
56	536'	78'-118'	356'-365'-77cps	81	505'
57	545'	145'-182'	452'-463'-100cps	92	538'
			465'-480'-160cps		
			483'-488'-35cps		
			504'-520'-100cps		

Hole No.	Depth	Gould ss.	Mineralization	ss-ms ratio	Morrison Contact
58	515'	85'-112'	331'-337'-23cps	62	504'
61	500'	78'-122'	318'329'- 50cps	64	
63	515'	44'-128'	380'-405'-15cps	63	
68	300'	195'-254'	None		
69	300'	190'-245'	None		
70	300'	198'-257'	None		

The following drill holes are requested as offsets to favorably mineralized drill holes 54, 57, 56, 5 and 6.

Hole No.	Depth	N. Coordinate	E. Coordinate
71	545'	368,400	1,105,000
72	545'	367,900	1,105,500
73	545'	367,400	1,105,000
74	545'	367,900	1,104,500
75	540'	367,400	1,106,000
76	540'	366,900	1,106,500
77	540'	366,400	1,106,000
78	540'	366,900	1,105,500
79	545'	368,400	1,104,000
80	545'	367,400	1,104,000
81	545'	367,900	1,103,500
82	540'	366,900	1,104,500
83	540'	366,400	1,104,000
84	540'	366,900	1,103,500
85	540'	366,400	1,105,000

These fifteen requested holes are offset holes to mineralized drill holes in an area strongly mineralized. Holes 54 and 57 have the strongest mineralization of any drill holes to date. Logs of these two holes are attached hereto.

The following listed holes are requested as offsets to drill holes 58 and 61 which penetrated favorable sandstone units and minor mineralization.

Hole No.	Depth	N. Coordinate	E. Coordinate
86	515'	366,900	1,102,000
87	515'	365,900	1,103,000
88	525'	363,900	1,103,000

McAlester Fuel Company would appreciate your early response to this request for additional drilling under Stage II of their contract.

Very truly yours,

RF:cjb

Copies sent to:

Mr. E. N. Harshman
U. S. G. S., DMEA
Building 25
Denver Federal Center
Denver, Colorado

Mr. E. O. Benyon
Bureau of Mines, DMEA
Denver Federal Center
Denver, Colorado

Mr. Max Hartle
Box 896
Edgemont, South Dakota

Mr. Tom Garrard
McAlester Fuel Company
McAlester, Oklahoma

EXTRA COPY DMEA RECEIVED JAN 20 1958		
DATE	INITIALS	CODE
		800

224 New Customhouse
Denver 2, Colorado

January 13, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4742 (Uranium), Contract No. Idm-21133, McAlester Fuel Company (Star claims and leased lands), Fall River County, South Dakota

Enclosed are three copies of confirmation of verbal work approval issued by the DMEA Field Team, Region III, pertaining to work under Stage II of the contract.

Also enclosed are two copies of the Operator's letter of December 19, 1957, and three copies of a joint memorandum, dated January 3, 1958, from R. U. King, Geologist, Geological Survey, and S. O. Binyon, Mining Engineer, Bureau of Mines, pertaining to the matter.

Copies of the confirmation of verbal work approval have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

Original signed by
W. H. KING

W. H. King

Enclosures

JWT:prl

cc: Finance Office,
Region III - w/copy of confirmation of work approval.
Harshman)
DMEA/DFC (Binyon)) w/copy of confirmation of work approval and joint memorandum.
Townsend)
Corres. file - w/copy of enclosures.
Chron.

224 New Customhouse
Denver 2, Colorado

January 8, 1958

Mr. Robert Ford,
Consulting Geologist,
McAlester Fuel Company,
P. O. Box 428,
Riverton, Wyoming

Re: Docket No. DMEA 4742 (Uranium)
Contract No. Idm-31133
McAlester Fuel Company
(Star claims and Leased lands)
Fall River County, South Dakota

Dear Mr. Ford:

In reference to your letter of December 19, 1957, this confirms verbal approval by the Government, issued December 30, 1957, for you to drill twenty (20) holes under the provisions of Stage II of the Contract.

A listing of the approved holes by numbers and approximate coordinate locations is attached. Also, the approximate locations of the approved holes are indicated on the map entitled, "Figure 4A.-Geologic Map, Showing Recommended Exploration, McAlester Fuel Company, Fall River County, South Dakota," which is also attached hereto and made a part of this confirmation of verbal work approval.

Approved holes Nos. 51 through 67 will be drilled to explore the lower sandstone of the Lakota member and holes Nos. 68, 69, and 70 will be drilled to explore the Fall River sandstone member only.

In conjunction with performance of the drilling of the above approved twenty holes, the following incidental charges are approved:

Bulldozing access roads and drill sites - Not to exceed 10 hours;

Standby time for probing holes - Not to exceed 15 hours;

Chemical analysis of samples for U_3O_8 content - Not to exceed 70 samples.

If the foregoing incidental charges are found to be insufficient to obtain the desired results, you may forward for the Government's consideration a request for appropriate increases.

Nothing in this confirmation of verbal work approval shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Very truly yours,

DMEA Field Team, Region III

By W. H. King
W. H. King

By E. N. Harshman
E. N. Harshman

Enclosures

JWT:prl

cc: Chmn. Op. Comm. (3)
Finance Office, Region III
Amendment file, Region III
Harshman
DMEA/DFC (Binyon)
Corres. file
Townsend
Chron.

Contract No. Idm-E1133
Recommended Stage II Drilling

Reference No. of Approved Stage II Offset Holes	Reference No. of Stage I Holes to be Offset	Coordinate Location of Stage II Offset Holes		Maximum Depth of Offset Holes Feet
51	47, 48	N 369,900	E 1,100,000	500 feet
52	47, 48	369,900	1,101,000	" "
53	2, 3, 4, 5	367,900	1,103,000	" "
54	5, 6	367,900	1,105,000	" "
55	2, 4, 48	366,900	1,101,000	" "
56	4, 5, 6	366,900	1,104,000	" "
57	6, 8, 15	366,900	1,106,000	" "
58	4	365,900	1,102,000	" "
59	4, 18	365,900	1,104,000	" "
60	6, 15, 18	365,900	1,105,000	" "
61	4, 18	364,900	1,103,000	" "
62	15, 18	364,900	1,106,000	" "
63	29	362,900	1,103,000	" "
64	37	353,600	1,109,000	" "
65	37, 38	353,600	1,110,000	" "
66	38	353,600	1,111,000	" "
67	38, 39	353,600	1,112,000	" "
68	46	349,100	1,115,000	300 feet
69	46	348,600	1,114,500	" "
70	46	348,600	1,115,500	" "
Totals	20 holes			9,400 feet

ROBERT FORD
MINING GEOLOGIST

BLAKE FOX
PETROLEUM GEOLOGIST

FORD & FOX
Consulting Geologists
206 S. BROADWAY
RIVERTON, WYOMING

P.O. BOX 428

UL6-3468

December 19, 1957

DMEA
DEPARTMENT OF THE INTERIOR
1957
REGION III
DENVER, COLORADO

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

Re: Contract No. Idm-E 1133
Docket No. DMEA 4742
McAlester Fuel Company

Dear Mr. King:

Attached hereto is the original and four copies of proposals and recommendations for continuance of the above named contract. This report together with the report of work accomplished under Stage I dated December 16, 1957, will give your staff the complete records of exploratory work to date.

We would greatly appreciate your prompt reply to the requested stage II drilling.

Sincerely yours,

RF:cb
CC: Mr. Tom Garrard
McAlester Fuel Company
McAlester, Oklahoma

Mr. Max Hartle
Box 896
Edgemont, South Dakota

EXTRA COPY
RECEIVED
DATE

[redacted]

[redacted]

[redacted]

[illegible]

[redacted]

Hole No.	Sandstone thickness	Mudstone thickness	Ratio
[illegible]	140	102	140
[illegible]	120	110	109
[illegible]	150	225	[illegible]
[illegible]	[illegible]	80	25
[illegible]	90	170	[illegible]
[illegible]	90	125	72
[illegible]	150	145	[illegible]
[illegible]	150	155	175
[illegible]	100	140	150

Rule No.	Sandstone Thickness	Mudstone Thickness	Ratio
[illegible]	140	100	140
[illegible]	120	110	109
[illegible]	170	185	[illegible]
[illegible]	80	80	[illegible]
[illegible]	90	170	[illegible]
[illegible]	90	125	[illegible]
[illegible]	150	145	[illegible]
[illegible]	180	155	175
[illegible]	160	140	150

IN REPLY REFER TO:

EXTRA COPY
DMEA
RECEIVED JAN 16 1958

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
DEPARTMENT OF THE INTERIOR
JAN 7 - 1958
REGION III
DENVER, COLORADO

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

January 3, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. N. Harshman

From: R. U. King
E. O. Binyon

Subject: Docket No. DMEA 4742 (Uranium), Contract No. Idm-E 1133, McAlester Fuel Company (Star claims and Leased lands), Fall River County, South Dakota

In a letter dated December 19, 1957, the operator of the subject contract project proposes to drill 60 Stage II holes as offsets to Stage I holes, because of favorable lithology of the Gould Channel sandstone and of the Lakota sandstone. During a conference on December 20, 1957, the operator's geologist, Robert Ford, indicated that additional objectives included reducing the drill spacing as much as possible and offset drilling around holes that encountered uranium mineralization. The referenced proposal is taken to constitute his request for approval of Stage II exploration.

The operator completed 46 holes, totalling 17,581 feet under Stage I of the contract, and drilled two holes on company account. Twelve holes encountered weak uranium mineralization in the Lakota sandstone, and one hole picked up similarly weak mineralization in the overlying Fall River sandstone. Gamma-ray logs indicate the equivalent uranium oxide content ranges from 0.008 to 0.06 percent.

Results of Stage I exploration shows two and possibly three Gould sandstone channels, which in neighboring areas have constituted favorable geologic structures for the occurrence of uranium. The channels trend south to south-southeast. Some additional drilling of the Gould channel sandstone to explore the central part and flanks of the "channel" is probably desirable in view of the wide spacing (1,400 feet) of the Stage I holes. But it is felt that such exploration could be justified only if combined with exploration of deeper targets. Therefore no Stage II drill holes are recommended solely on the basis of favorable Gould Channel sandstone.

Based on lithologic logs of drill cuttings and electric logs the operator postulates a correlation between the mineralization in the Lakota sandstone and the sandstone-mudstone ratio in the Lakota. From the pattern of mineralized drill holes he concludes that the mineralization occurs along a northwest-trending zone and is related to a parallel trend of constant sandstone-mudstone ratio. Although 13 holes, including 3 previously drilled holes (AEC-4, BT-1, and BT-2) are grouped in an elongate northwesterly trending area, two holes, nos. 10 and 29, are sufficiently distant from the other holes as to lend serious doubt to the significance of the postulated trend. However due to the persistent mineralization found in these holes it is concluded that further exploration for ore-grade material in the Lakota is warranted.

The operator also concludes from Stage I drilling and detailed mapping of the area, that the Lakota is most favorable for ore where the sandstone-mudstone ratio is greater than 80 (100 means equal amounts of sandstone and mudstone), and that the zone of water saturation is a favorable geologic horizon for the occurrence of uranium. Such favorable geologic conditions are postulated to exist in the area between the Cheyenne River and the line of holes nos. 35-40.

Three holes are proposed to offset hole no. 46, to further explore the mineralization in the Fall River sandstone. It is recommended that these three holes be approved.

To Further explore the Lakota sandstone for ore-grade material in the northern part of the property in the area where weak mineralization has been found, 17 offset holes are recommended to offset holes nos. 2, 3, 4, 5, 6, 8, 15, 18, 29, 47, and 48.

To explore the Lakota sandstone for uranium in the area between the Cheyenne River and the line of holes nos. 35-40, four holes are recommended as offsets to holes nos. 37, 38, and 39. It is felt that the four offset holes are necessary in order to test the Gould, and Lakota sandstones at a sufficiently close spacing to adequately explore the area.

Coordinates of the collars of the recommended Stage II offset holes with hole number, holes being offset and estimated maximum length, are shown on the following table. Approximate locationsof the recommended Stage II holes in relation to Stage I exploration are shown on the accompanying map (fig. 4A).

R. U. King, Geologist

E. O. Binyon, Mining Engineer

R.U.King:mp

Contract No. Idm-E1133
Recommended Stage II Drilling

	Reference No. of Approved Stage II Offset Holes	Reference No. of Stage I Holes to be Offset	Coordinate Location of Stage II Offset Holes		Maximum Depth of Offset Holes Feet
	51	47, 48	N 369,900	E 1,100,000	500 feet
	52	47, 48	369,900	1,101,000	" "
	53	2, 3, 4, 5	367,900	1,103,000	" "
	54	5, 6	367,900	1,105,000	" "
	55	2, 4, 48	366,900	1,101,000	" "
	56	4, 5, 6	366,900	1,104,000	" "
	57	6, 8, 15	366,900	1,106,000	" "
	58	4	365,900	1,102,000	" "
	59	4, 18	365,900	1,104,000	" "
	60	6, 15, 18	365,900	1,105,000	" "
	61	4, 18	364,900	1,103,000	" "
	62	15, 18	364,900	1,106,000	" "
	63	29	362,900	1,103,000	" "
	64	37	353,600	1,109,000	" "
	65	37, 38	353,600	1,110,000	" "
	66	38	353,600	1,111,000	" "
	67	38, 39	353,600	1,112,000	" "
	68	46	349,100	1,113,000	300 feet
	69	46	348,600	1,114,500	" "
	70	46	348,600	1,113,500	" "
Totals	20 holes				9,400 feet

MME Form 14
Sept. 1958

Contract No. Idm-E) ~~1133~~
14-23) XXXXX

Docket No. DMEA) ~~4742~~
MME) XXX

Date of Action ~~11/20/58~~

DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Terminated contract

OBLIGATION DOCUMENT

To: Chief, Accounts Section, Finance Branch, Bureau of Mines

From: Director, Division of Operations Control and Statistics

Please enter the amounts shown below on the accounts of the Office of Minerals Exploration.

Name and Address of Contractor: McAlester Fuel Co.
Box 783
McAlester, Oklahoma

Date of Contract	Region	State	Commodity
Sept. 19, 1957	III	South Dakota	Uranium
	Reserve		Obligation
Prior Amount	0		54,102.00
Increase	0		0
Decrease	~~0~~		~~18,173.02~~
Revised Amount	0		35,928.98

Remarks:

cc: 800
210

43244

DMEA Form 14

Contract No. Idm-E 1133

Docket No. 4742

DEPARTMENT OF THE INTERIOR

Executed contract

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Obligation Document

TO: Chief, Finance Section, Budget and Finance Branch, Bureau of Mines

Please make the following entry on the records of the Defense Minerals Exploration Administration under the Strategic and Critical Minerals Exploration Program.

Date of Contract	Region	State	Commodity
~~November 18~~ Sept. 19, 1957	III	South Dakota	Uranium

Name and Address of Operator: McAlester Fuel Co.
Box 783
McAlester, Oklahoma

	Reserve	Obligation
Prior Amount	54,102.00	0
Increase	0	54,102.00
Decrease	54,102.00	0
Revised Amount	0	54,102.00

Remarks:

(Name)
Allen S. Dakan, Chief
Operations Control and
Statistics Division
(Title)

Date delivered to Bureau of Mines, Washington 11/18/57

22845

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 15 1957

DATE	INITIALS	CODE
11/15	gf	220
		800

Audit Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4742

Commodity Uranium

Contract No. Idm-E 1133

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this 19 SEP 1957 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] McAlester Fuel Company, a Delaware corporation, whose mailing address is P. O. Box 763 McAlester, Oklahoma, 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-200), the attached Exhibit "A," Annex I, ~~and~~ ~~xxx~~ Annex II, and maps, Figure 2 and Figure 4. 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 South Dakota, County of Fall River, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] See Annex I of [5] ..... in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] See Annex I, [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: See Annex I

(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

[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."

of the land (lessor, seller, optionor, etc.), are attached, as follows: See Annex I

(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 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(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 November 9, 1957 shall commence the work, and on or before May 1, 1958 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in~~ except as otherwise provided in Exhibit "A" with respect to stages of work. See Annex II.

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) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) *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.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $72,136.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $54,102.00: *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 or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(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. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated total allowable cost of the work. See Annex II.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums.

CATEGORY (2)—PERSONAL SERVICES. See Annex II.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. **See Annex II.**

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the 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. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. 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. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved 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 detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and 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 related costs incurred.

(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 8. *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 7) 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 therof 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 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *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: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) 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.

(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: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) 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 10 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 11. *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 12. *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 13. *Changes and added provisions.*—

See Annex II.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

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

McALESTER FUEL COMPANY
(Operator)

By Tom E. Garrard

Title VICE-PRESIDENT

I, Carl Oman, certify that I am the secretary of the corporation named as Operator herein; that Tom E. Garrard who signed this contract on behalf of the Operator, was then Vice President of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Carl Oman

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70617-1

EXPLORATION PROJECT CONTRACT
McALESTER FUEL COMPANY
DOCKET NO. DMEA-4742

ANNEX I

The land referred to in Article 2 of the Contract consists of eight parcels of leased land and 249 unpatented lode mining claims, situate in Fall River County, South Dakota.

The eight parcels of leased land are described below and the leases pertaining to the same are all recorded in the official records of Fall River County, South Dakota, as follows:

Lessor: Warner R. Ball and Mrs. Warner R. Ball.

The south 1/2, Section 6; the south 1/2 of the northwest 1/4, the southwest 1/4, the west 1/2 and the southeast 1/4 of the southeast 1/4, Section 5, Lot 2, the east 1/2 of the northwest 1/4, the northeast 1/4, the south 1/2, Section 7; the north 1/2 of the north 1/2, the southeast 1/4 of the northeast 1/4, Section 18; the north 1/2, the northwest 1/4 and the east 1/2 of the southwest 1/4, and west 1/2 of the southeast 1/4, Section 8; all in T. 9 S. Range 4 E, recorded in Book 411 Miscellaneous pages 124-129.

Lessor: Byron J. Cox and Bill Duerson.

The south 1/2 of the northwest 1/4, the east 1/2 of the northeast 1/4, Section 17; the northeast 1/4 of the northeast 1/4, Section 20; all in T. 9 S., Range 4 E, totaling 200.00 acres more or less, recorded in Book 41 Miscellaneous pages 157-162.

Lessor: Frank and Emma Hand.

The southwest 1/4 of the southwest 1/4, Section 8; north 1/2 of the northwest 1/4, west 1/2 of the northeast 1/4, north 1/2 of the southeast 1/4, and the southeast 1/4 of the southeast 1/4, Section 17; all in T. 9 S., Range 4 E., recorded in Book 41 Miscellaneous, pages 14[illegible]-151.

Lessor: B. H. Lord and Amy Lord.

The southeast 1/4 of the northwest 1/4, the east 1/2 of the southwest 1/4, the west 1/2 of the southeast 1/4, Section 18; all in T. 9 S., Range 4 E., recorded in Book 41 Miscellaneous, pages 141-14[illegible].

Lessor: John D. and Margaret J. Manke.

The southeast 1/4 of the northeast 1/4, the southeast 1/4, Section 13; T. 9 S., Range 3 E., BHM, Lots 2, 3, and 4, Section 18; the south 1/2 of the north 1/2, the southwest 1/4, the southwest 1/4 of the southeast 1/4, Section 21; the north 1/2, Section 28; the north 1/2, the north 1/2 and the southwest 1/4 of the southwest 1/4, Section 29; all of Section 30; the east 1/2 of Section 31; the west 1/2 of the west 1/2, Section 32; all in T. 9 S., Range 4 E., BHM, recorded in Book 41 Miscellaneous, pages 1[illegible]2-1[illegible]7.

Lessor: John D. and Margaret J. Manke.

The southwest 1/4 of the northeast 1/4, the east 1/2 of the southeast 1/4, Section 18; the west 1/2 and the southeast 1/4 of the southwest 1/4, Section 17; lot 1, the east 1/2 of the northwest 1/4, the northeast 1/4, the south 1/2, Section 19, the northwest 1/4, the south 1/2, Section 20; all in T. 9 S., Range 4 E., recorded in Book 41 Miscellaneous, pages 129-134.

Lessor: James S. Raby.

The northwest 1/4, the south 1/2, Section 1; the east 1/2 of the northwest 1/4, the west 1/2 and the southeast 1/4 of the northeast 1/4; the east 1/2 of the southwest 1/4, the southeast 1/4, Section 12; all in T. 9 S., Range 3 E., recorded in Book 41 Miscellaneous pp. 134-139.

Lessor: James S. Raby.

The northeast 1/4 of the northwest 1/4, north 1/2 of the northeast 1/4, Section 13, T. 9 S., Range 3 E.,BHM, recorded in Book 41 Miscellaneous pp. 151-156.

Nine Consents to Lien and Subordination Agreements executed by the above-named lessors are attached hereto and made part hereof.

Notices of location of the mining claims are recorded in the Office of the Recorder, Fall River County, South Dakota, as follows:

Claim No.	Book No.	Page No.	Date recorded
Star Nos. 1 through 6	Misc. 40	130-133	3/27/57
Star No. 7	" 40	225	3/27/57
Star Nos. 8 through 190	" 40	133-225	3/27/57
Star Nos. 191 through 245	" 40	230-257	4/5/57
Sam	" 38	622-624	2/27/57
Sam 1	" 38	"	2/27/57
Roy	" 38	"	2/27/57
Roy 1	" 38	"	2/27/57

The location of the leased land and mining claims with reference to section, township, and range are shown on the map entitled, "Figure 2--Star Claim Groups and Leased Land . . .," attached hereto and made part hereof.

MF-205
(Combines and supercedes MF-[illegible] and MF-203)
June 1956

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator McAlester Fuel Co.
Docket No. DMEA-5742
Contract No. Idm-E 1133
Contract Date 19 SEP 1957

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Fall River, State of South Dakota, described ~~as follows:~~ 2/

in a Mining Lease, dated February 16, 1957, which was recorded in Book 41 Misc., Pages 151-156, County of Fall River, State of South Dakota, at 10:45 A.M., February 25, 1957.

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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

none

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 23 day of August, 1957.

James L Raby [Seal] Belmont, South Dakota [Address]
James L. Raby

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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]

MF-205
(Combines and supercedes MF-[redacted] and MF-203)
June 1956

RECEIVED
SEP 12 1957
D.M.E.A.

For Government's Use Only
EXPL[redacted]TION PROJECT CONTRACT
Operator Mallinckrodt Chemical Co.
Docket No. DMEA-[illegible]
Contract No. Idm-E 1133
Contract Date 19 SEP 1957

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Fall River, State of _____, described as follows: 2/

in a Mining Lease, dated January 31, 1957, which was recorded in Book 41 Misc., Pages 130-132, County of Fall River, State of South Dakota, at 10:45 a.m., February 4, 1957.

_____,
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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

None

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 23 day of August, 1957

James S. Raby [Seal] Redfield, South Dakota [Address]

James S. Raby

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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]

MF-205
(Combines and supersedes MF-[illegible] and MF-203)
June 1956

RECEIVED
SEP 12 1957
D.M.E.A.

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator Belloctor Fuel Co.
Docket No. DMEA-[illegible]
Contract No. Idm-E 1133
Contract Date ~~19 SEP 1957~~

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Fall River, State of South Dakota, described ~~as follows:~~ 2/ in a Mining Lease, dated February 25, 1957, which was recorded in Book 42 Misc., Pages 162-167, County of Fall River, State of South Dakota, at 10:00 A.M., March 4, 1957.

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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

None

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 5th day of September, 1957.

Josephine Manke Josephine Manke	[Seal]	Edgemont, South Dakota	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

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]

MF-205
(Combines and supercedes MF-[illegible] and MF-203)
June 1956

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator Manhattan Coal Co.
Docket No. DMEA-[illegible]
Contract No. Idm-E 1133
Contract Date ~~19 SEP 1957~~

RECEIVED SEP 12 1957 D.M.E.A.

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America: None

Referring to that certain land in the County of Fall River, State of South Dakota, described as follows: 2/

In a Mining Lease, dated February 25, 1957, which was recorded in Book 41 Misc., Pages 162-167, County of Fall River, State of South Dakota, at 10:00 A.M., March 4, 1957.

_____,

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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

None

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this _____ day of _____, 195__.

John D. Manke [Seal] Bacoma, South Dakota [Address]
John D. Manke

Margaret J. Manke [Seal] Bacoma, South Dakota [Address]
Margaret J. Manke

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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]

MF-205
(Combines and supercedes MF-[illegible] and MF-203)
June 1956

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator Pathfinder Fuel Co.
Docket No. DMEA-[illegible]
Contract No. Idm-E 1133
Contract Date 19 SEP 1957

RECEIVED SEP 12 DMEA

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Fall River, State of South Dakota, described as follows: 2/

In a Mining Lease, dated February 1, 1957, which was recorded in Book 41 Misc., Pages 129-130, County of Fall River, State of South Dakota, at 10:45 A.M., February 4, 1957

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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

None

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: None (State "None" or "See Annex No.____")

Dated this 5th day of September, 1957.

John D. Manke	[Seal]	Hagerman, New Mexico	[Address]
Margaret J. Manke	[Seal]	Hagerman, New Mexico	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

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]

MF-205
(Combines and supercedes MF-[illegible] and MF-203)
June 1956

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator Manchester Duel Co.
Docket No. DMEA-[illegible]742
Contract No. Idm-E 1133
Contract Date ~~19 SEP 1957~~

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Fall River, State of South Dakota, described ~~as follows:~~ 2/ in a Mining Lease, dated February 6, 1957, which was recorded in Book 42 Misc., Pages 141-146, County of Fall River, State of South Dakota, at 9:45 A.M., February 18, 1957.

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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

None

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 23 day of Aug, 1957.

B H Lord	[Seal]	Edgemont, South Dakota	[Address]
D. W. Lord			
Amy Lord	[Seal]	Edgemont, South Dakota	[Address]
Amy Lord			
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

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]

MF-205
(Combines and supercedes MF-[illegible] and MF-203)
June 1956

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator McAlester Fuel Co.
Docket No. DMEA-4742
Contract No. Idm-E 1133
Contract Date 10 SEP 1957

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Fall River, State of South Dakota, described ~~as follows~~ 2/

in a Mining Lease, dated February 7, 1957, which was recorded in Book 41 Misc., Pages 146-151, County of Fall River, State of South Dakota, at 9:45 A.M., February 18, 1957.

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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

None

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 26 day of August, 1957.

Frank Hand Frank Hand	[Seal]	Hot Springs, South Dakota	[Address]
Emma Hand Emma Hand	[Seal]	Hot Springs, South Dakota	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

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]

MF-205
(Combines and supercedes MF-[illegible] and MF-203)
June 1956

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator Dallastor Fuel Co.
Docket No. DMEA- 5702
Contract No. Idm-E 1133
Contract Date 19 Sep 1957

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Fall River, State of South Dakota, described ~~as follows:~~ 2/

in a Mining Lease, dated February 25, 1957, which was recorded in Book 41 Misc., Pages 157-162, County of Fall River, State of South Dakota, at 10:30 A.M., February 27, 1957.

, 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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

None

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 26 day of August, 195 7

Byron J. Cox [Seal] Hot Springs, South Dakota [Address]
Byron J. Cox

[Seal] c/o Byron J. Cox [Address]
William D. Duerson

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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]

MF-205
(Combines and supercedes MF-[illegible] and MF-203)
June 1956

DMEA
DEPARTMENT OF THE INTERIOR

OCT 28 1957
REGION III
DENVER, COLORADO

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator McAlester Fuel Co.
Docket No. DMEA- 4742
Contract No. Idm-E 1133
Contract Date 19 Sep. 1957

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of [redacted], State of [redacted], described [redacted]

[redacted]

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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

[redacted]

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 12 day of October, 1957.

BY: L. H. Duerson [Seal] Hot Springs, South Dakota [Address]
Agent for estate of W. D. Duerson

_____ [Seal] c/o Byron J. Cox [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

_____ [Seal] _____ [Address]

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]

MF-205
(Combines and supercedes MF-[illegible] and MF-203)
June 1956

For Government's Use Only
EXPL[illegible]TION PROJECT CONTRACT
Operator McAlester Fuel Co.
Docket No. DMEA- 4742
Contract No. Idm-E 1133
Contract Date 19 SEP 1957

CONSENT TO LIEN
and
SUBORDINATION AGREEMENT 1/

To the United States of America:

Referring to that certain land in the County of Fall River, State of South Dakota, described ~~as follows:~~

in a Mining Lease, dated January 30, 1957, which was recorded in Book 41 Misc., Pages 124-129, County of Fall River, State of South Dakota, at 10:45 A.M., February 4, 1957.

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;

3. Subordinates the undersigned's right, title, claim, or interest in or against the land and in any production therefrom to the rights of the Government under the contract with respect to royalty on production and liens to secure same;

4. Represents and undertakes that there is no claim, lien, or encumbrance upon the undersigned's right, title, claim, or interest in or against the land other than the following: (If "none" insert the word "none." Do not leave lines blank.)

NONE

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

2/ 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.

5. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Agreement; and (b) to give advance notice of the Government's rights under this Agreement to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, claim, or interest in or against the land, or any production therefrom furnishing the Government with two copies of such notice; and

6. Consents to all amendments (including an agreement of termination) and assignments of the contract without notice thereof, and undertakes and agrees that this Agreement shall extend and apply thereto.

7. Added provision: _____ (State "None" or "See Annex No.____")

Dated this 24 day of August, 1957.

Warner R Ball Mr. Warner R. Ball	[Seal]	Edgemont, South Dakota	[Address]
Warner R Ball Mrs. Warner R. Ball	[Seal]	Edgemont, South Dakota	[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]
	[Seal]		[Address]

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]

EXPLORATION PROJECT CONTRACT
McALESTER FUEL COMPANY
DOCKET NO. DMEA-4742

ANNEX II

Article 13. Changes and added provisions.--

(a) That part of the last sentence of Article 3 beginning with the word "either" is deleted and replaced by the words "have completed the work, except as otherwise provided in Exhibit 'A' with respect to stages of work."

(b) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon is deleted.

(c) Categories (2) through (7) of Article 6(a) are deleted.

(d) In addition to the costs of work estimated in Exhibit "A" by categories of actual costs, the costs of work requirements specified in Exhibit "A" as "Fixed Unit Costs" are allowable costs of the project. The Government will contribute to the fixed unit costs as work units are performed. A "Fixed Unit Cost" is an agreed price for each unit of work to be performed regardless of costs incurred by the Operator. Costs set forth in Exhibit "A" include all allowable costs of the work to be performed under the Contract.

(e) In the last sentence of Article 6(c), the words "Article 8" are substituted for the words "Article 9."

(f) Notwithstanding any other provision of the Contract, the allowable unit cost per foot of a drilling item is the average unit cost per foot computed on the basis of all the actual unit costs of said drilling item incurred by the Operator: Provided, That the Government will not contribute to any portion of an average unit cost of a drilling item that exceeds the estimated unit cost of said item set forth in the contract.

EXPLORATION PROJECT CONTRACT
McALESTER FUEL COMPANY
DOCKET NO. DMEA-4742

EXHIBIT "A"

Description of the Work

General Provisions

The object of this project is to explore for uranium ore deposits that might occur in the Fall River and Lakota sandstone members of the Cretaceous Inyan Kara group of sedimentary rocks.

The exploratory work shall consist of non-core rotary drilling of vertical holes to an average depth of approximately 300 feet in the Fall River and upper (Gould channel) Lakota sandstone, and to approximately 550 feet where the underlying lower sandstone strata of the Lakota member are also to be explored.

Holes designated to explore the "Gould" channel sandstone shall not be drilled more than 10 feet below its inferred base; and the holes to explore the total Inyan Kara group shall not be drilled more than 10 feet below the inferred base of the lower Lakota sandstone.

Samples of the cuttings shall be collected for each two feet of hole drilled. The samples shall be examined for physical and geologic characteristics and scanned radiometrically. One-half of each sample shall be stored for Government inspection, and possible use, in heavy paper sample sacks marked to show the hole number and the depth represented. The other half of the sample, for the Operator's use, shall, if it shows significant anomalous radioactivity, be chemically analyzed for its U_3O_8 content. With previous Government approval, the Operator may dispose of the stored portion of the samples.

All holes shall be logged geologically and probed radiometrically by the Operator. The logs shall include lithology, sandstone-mudstone ratio, sandstone thickness, etc., required for control of subsequent drilling and general geologic information. Records of such logging and probing, together with the assay certificates of the cutting samples, shall be submitted with the Operator's monthly progress report. The Operator's report shall also include a map or sketch showing the location of all holes drilled during the reporting period.

The Government will not contribute to the cost of an incomplete hole, or to one that cannot be probed radiometrically.

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

The Operator shall provide a full-time supervisor and such technical assistance and labor as may be required to complete the project in a satisfactory manner.

Access roads and drill sites shall be prepared with a D-7 Caterpillar dozer or an equivalent unit of any other make.

The location, direction, and extent of all the project work are subject to Government approval.

The work shall be performed in three stages. The Operator shall perform all of Stage I work and as much of Stage II and Stage III work as is approved in writing by the Government.

Stage I

Prepare access roads and drill sites, and drill not in excess of 46 holes at the approximate locations shown on the map entitled "Figure 4. Geologic Map Showing Recommended Exploration, . . .," attached hereto and made part hereof.

In the area north of the Cheyenne River, 34 holes shall be drilled in ten lines spaced approximately 1,000 feet apart, the holes being staggered on alternate lines. Holes in each line shall be spaced at intervals of approximately 2,000 feet.

In the area south of the Cheyenne River, 6 holes shall be drilled on each of two lines spaced about 4,000 feet apart. The holes on each line shall be spaced at intervals of approximately 2,000 feet.

On map Figure 4, the holes to penetrate the Fall River and upper Lakota sandstones are designated by an open circle, and those to penetrate the Fall River, upper Lakota, and also the lower Lakota sandstones are designated by either a solid black circle or a circle with a cross center.

It is estimated that 20,300 feet of non-core rotary drilling, 15 hours of bulldozer work, and chemical analyses for the U_3O_8 content of 140 samples will be required to complete this Stage I of the project. However, if these estimates are too low, then additional units of work and funds required may, upon written approval of the Government, be transferred and deducted from Stage III.

Stage II

Prepare access roads and drill sites, and drill not in excess of 60 holes as offsets to those holes previously drilled that showed significant uranium mineralization or encountered sandstone considered to be favorable for uranium deposition.

It is estimated that 20 of the holes will be drilled as offsets to explore the Fall River and upper Lakota sandstone and that 40 holes will be drilled through the lower Lakota sandstone, for an aggregate total of 2[illegible],000 feet of non-core rotary drilling.

Holes drilled as offsets to explore the Fall River and upper Lakota sandstones shall not be drilled closer than approximately 200 feet to any other hole; and holes drilled to explore through the lower Lakota shall not be closer than approximately 500 feet to the hole being offset under this Stage II of the Contract.

It is estimated that 26,000 feet of non-core rotary drilling, 15 hours of bulldozer work and chemical analyses of 210 samples will be required to complete this Stage II of the project. However, if these estimates are too low, then additional units of work and funds may, upon the written approval of the Government, be transferred and deducted from Stage III.

Stage III

Prepare access roads and drill sites for offset holes to those holes drilled under Stages I and II which indicated significant uranium mineralization in the sandstones.

Holes drilled as offsets to explore the Fall River and upper Lakota sandstones shall not be closer than approximately 100 feet to any other hole, and holes drilled as offsets to explore through the lower Lakota sandstone shall not be closer than approximately 200 feet to the hole being offset.

Not in excess of 15,000 feet of non-core rotary drilling, 22½ hours of stand-by time for probing drill holes, 10 hours of bulldozer work and chemical analyses of 210 samples for their U_3O_8 content, less any units of such items that have been transferred to Stages I or II, shall be allowed under this Stage III of the Contract.

Estimated Costs

Stage I

Actual Costs

Category (1) - Independent Contracts

Bulldozing, 15 hours @ $12.50/hr.	$ 187.50	
Non-core rotary drilling, 20,300 feet @ $1.00/ft.1/	20,300.00	
Stand-by time for probing holes, 34½ hours @ $10.00/hr.	345.00	
Categories (2) through (7) None		
Fixed Unit Costs		
Incidental allowance 2/ for each foot of drilling completed, 20,300 feet @ $0.12/ft.	2,436.00	
Chemical analyses for U_3O_8 content of 140 samples @ $3.50/sample	490.00	
Estimated total cost, Stage I		$23,758.50

Stage II

Actual Costs

Category (1) - Independent Contracts

Bulldozing, 15 hours @ $12.50/hr.	$ 187.50	
Non-core rotary drilling, 26,000 feet @ $1.00/ft. 1/	26,000.00	
Stand-by time for probing holes, 45 hours @ $10.00/hr.	450.00	
Categories (2) through (7) None		
Fixed Unit Costs		
Incidental allowance 2/ for each foot of drilling completed, 26,000 feet @ $0.12/ft.	3,120.00	

Chemical analyses for U_3O_8 content of 210 samples @ $3.50/ sample	$735.00	
Estimated total cost, Stage II		$30,492.50

Stage III

Actual Costs

Category (1) - Independent Contracts

Bulldozing. 10 hours @ $12.50/hr.	$ 125.00	
Non-core rotary drilling, 15,000 feet @ $1.00/ft. 1/	15,000.00	
Stand-by time for probing holes, 22½ hours @ $10.00/hr.	225.00	

Categories (2) through (7)
None

Fixed Unit Costs

Incidental allowance 2/ for each foot of drilling completed, 15,000 feet @ $0.12/ft.	1,800.00	
Chemical analyses for U_3O_8 content of 210 samples @ $3.50/ sample	735.00	
Estimated total cost, Stage III		$17,885.00

S U M M A R Y

Total estimated cost, Stage I	$23,758.50
Total estimated cost, Stage II	$30,492.50
Total estimated cost, Stage III	$17,885.00
Total estimated cost of project	$72,136.00
Government participation @ 75%	$54,102.00

1/ See Article 13(f).
2/ Includes all costs whatsoever that might otherwise be allowable costs of the project under categories (1) through (7) of Article 6(a), except as otherwise scheduled in Exhibit "A".

DMEA Form 14

Contract No. Idm-E 1133

Docket No. 4742

Approved contract

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Obligation Document

TO: Chief, Finance Section, Budget and Finance Branch, Bureau of Mines

Please make the following entry on the records of the Defense Minerals Exploration Administration under the Strategic and Critical Minerals Exploration Program.

Date of Contract	Region	State	Commodity
September 19, 1957	III	South Dakota	Uranium

Name and Address of Operator: McAlester Fuel Co.
Box 783
McAlester, Oklahoma

	Reserve	Obligation
Prior Amount	0	0
Increase	54,102	0
Decrease	0	0
Revised Amount	54,102	0

Remarks:

Allen S. Dakan, Chief
Operations Control and
Statistics Division
(Name)
(Title)

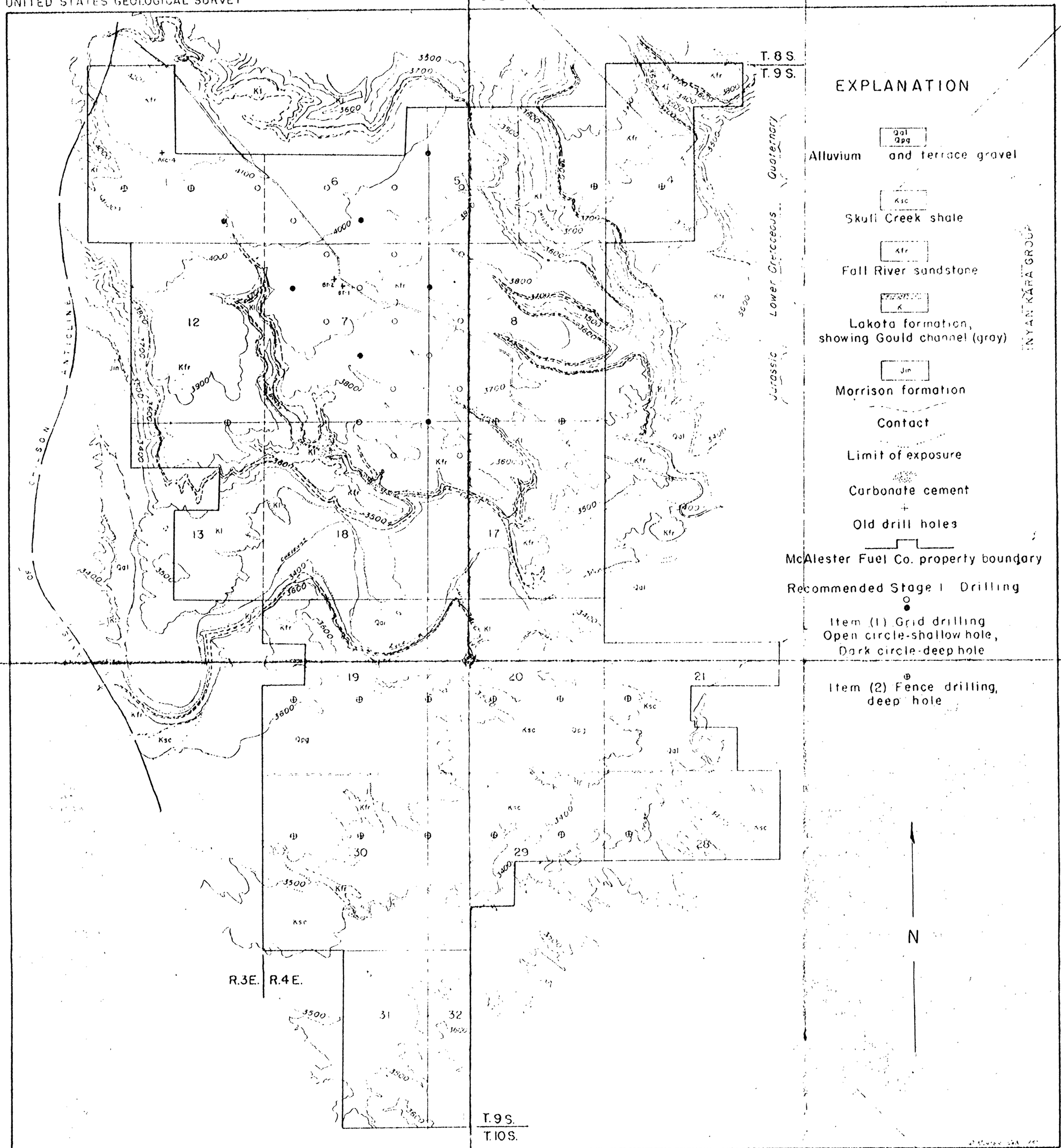
Date delivered to Bureau of Mines, Washington 9/20/57

22845

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

EXAMINATION REPORT
DMEA 1742

PREPARED FOR
DEF MIN. EXPLORATION ADMINISTRATION



Topography from USGS quadrangle maps

Geology from Bell III, H. and Post, E., USGS MF 63-66

FIGURE 4. GEOLOGIC MAP, SHOWING RECOMMENDED EXPLORATION, McALESTER FUEL COMPANY, FALL RIVER COUNTY, SOUTH DAKOTA

Scale 1" = 2000'

2000 4000 FEET

Contour Interval 100 feet

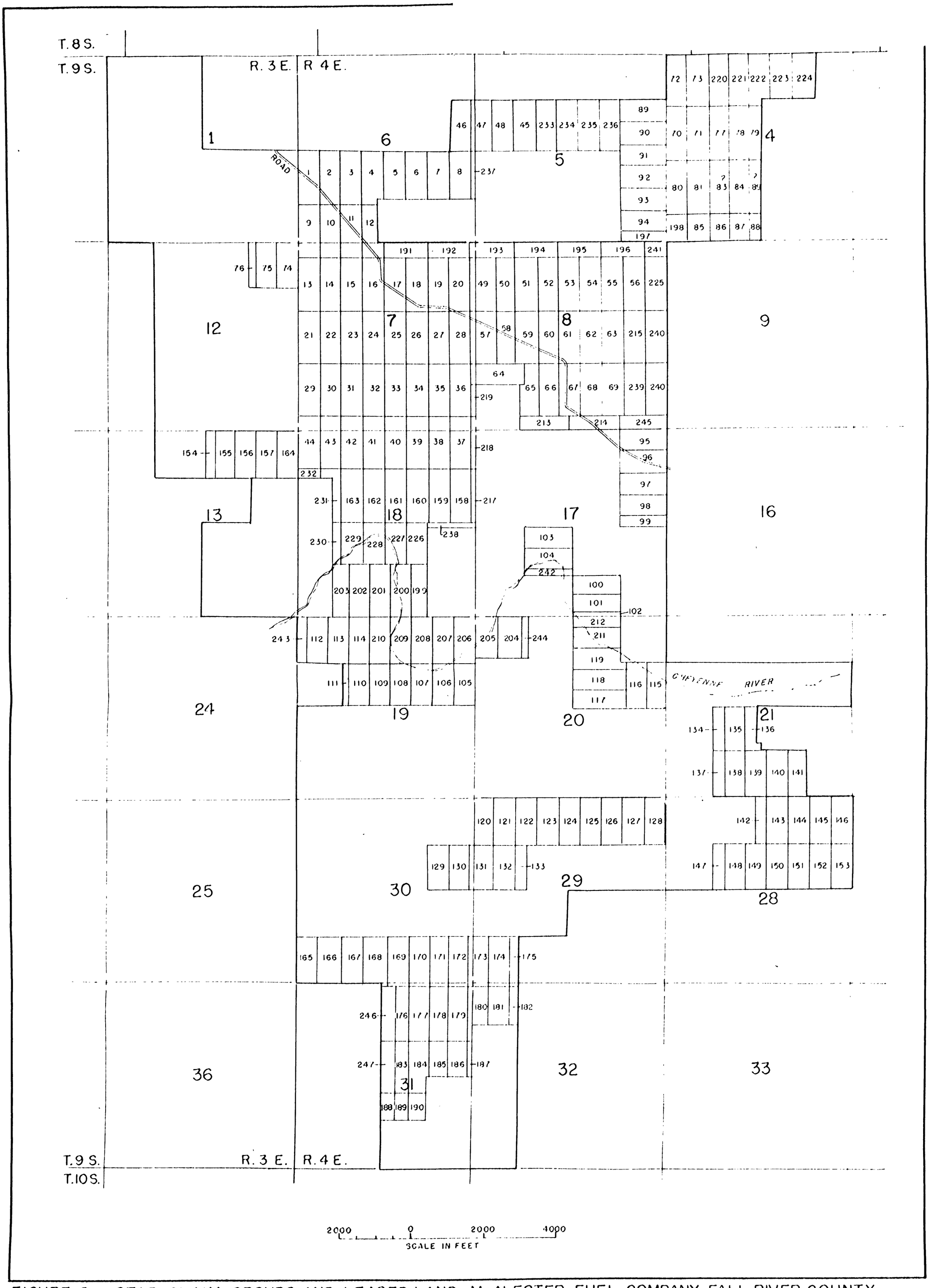


FIGURE 2 – STAR CLAIM GROUPS AND LEASED LAND, McALESTER FUEL COMPANY, FALL RIVER COUNTY, SOUTH DAKOTA. DMEA 4742