DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3640

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Cys USGS, USBM, Region III
This document has been recorded as

Exploration

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Routing Slip

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CONTROLLED DOCUMENT

700

Surname copy

Ching
Ellis
Kulsgaard
Hedges
~~Selfridge~~
Johnson

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

Mr. W. Russell Pryor
Strategic Minerals, Inc., of Texas
Post Office Box 14396
Houston 21, Texas

FEB 8 1955

Re: Docket No. DMEA-3640 (Uranium)
Joy group of claims
Grand County, Utah

Dear Mr. Pryor:

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

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

Careful study of all our information indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied. Such denial, however, is made without prejudice. In the event specific geologic data of a favorable nature are disclosed through limited drilling or other work on your part, we shall be pleased to consider a new application.

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

Sincerely yours,

C. O. Mittendorf

Administrator

MChing/gla
1-31-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
E. L. Newcomb, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region III (2)

R.C.B.

Ching
Ellis

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

January 31, 1955

Summary of Proposed Project

Object: Denial of application for an exploration project

Docket No.: DMEA-3640

Commodity: Uranium

Applicant: Strategic Minerals, Incorporated, of Texas
Post Office Box 14396
Houston 21, Texas

Property: The Joy Group, consisting of 366 lode mining claims containing approximately 6,500 acres, situated in Townships 21 and 22 South, Range 24 East, S L B & M, Grand County, Utah. Applicant is the owner.

Date of application: January 7, 1955

Amount of application: $116,000.00

Work proposed:

3 miles access roads to drill site	$8,000.00
10,000 ft. diamond drilling @ 3.60/ft. (23 holes)	36,000.00
45,000 ft. rotary drilling @ 1.60/ft. (121 holes)	72,000.00
Total Cost	$116,000.00

Field Team Report: The application was not referred to the Field Team for an examination and report because of its obvious lack of merit. In forwarding the application to the Washington office the Executive Officer, DMEA Field Team, Region III noted that the proposals set forth are purely prospecting in nature, not based on definite target areas, and therefore, not within the limits of the DMEA program. He recommended that the application be returned to the applicant.

Commodity Committee Members' Comments:

Bureau of Mines - John E. Crawford, January 19, 1955

Discussed with representative of AEC. Recommends that application be returned to applicant inasmuch as proposal does not represent a sound exploration program and applicant has given no indication of initial prospecting on his part, nor evidence of uranium mineralization.

Geological Survey - E. L. Newcomb, January 21, 1955

The applicant proposes to test 14 anomalous areas which have been indicated by airborne and ground radiometric surveys. Most of the anomalies are weak and unsubstantiated by evidence of mineralization at the surface. As the closest producing mine is 13 miles away drilling on the claims will be strictly "wild-catting" in an area which is not any more favorable than other extensive areas underlain by the Salt Wash member of the Morrison, on the plateau. Recommends that the application be denied.

Rare and Miscellaneous Metals Division - Michael Ching, January 28, 1955

The Colorado river cuts through or is adjacent to most of the applicant's property along its greatest dimension. The Salt Wash member of the Morrison formation, the potential ore-bearing unit, is apparently exposed extensively along the Canyon walls. Yet, the applicant was able to observe only one outcrop approaching ore grade on a scintillation counter. No evidence was submitted, nor mention made, of ore-grade samples being taken. The nearest producing area, the Yellow Cat, lies 13 miles to the southwest; consequently, no geological trends can be established from nearby producing properties. Applicant selected proposed drilling targets along major faults on the property on the basis that observed anomalous radioactivity was generally near fracture areas. However, no evidence was given to show that such faults were actually related to anomalous radioactivity or ore deposition. It is recommended that the application be denied without prejudice.

Conclusions and Recommendations:

The applicant's proposed program is based upon insufficient evidence of mineralization or favorable geologic factors. It is recommended that the application be denied without prejudice.

Ernest Wm. Ellis

Ernest Wm. Ellis

1/25/55 glu

IN REPLY REFER TO:

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

Defense Minerals Administration
RECEIVED
JAN 25 1955

January 21, 1955

Re: DMEA-3640
Strategic Minerals, Inc.
(Joy Claim Group)
Grand Co., Utah
$116,000 - Uranium

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

The applicant proposes to test 14 anomalous areas which have been indicated by airborne and ground radiometric surveys. An extensive 3-stage program of diamond core and rotary drilling is planned to test the anomalies in an area comprising 360 claims. The program will test for sand lenses in the Salt Wash and possible uranium mineralization which may be associated with this type of sedimentary body.

Most of the radiometric anomalies are weak and unsubstantiated by evidence of mineralization at the surface. At the present time the applicant's program is prospecting for evidence which will justify carrying out the entire drilling program. As the closest producing mine is 13 miles away, drilling on the Joy claims will be strictly "wild-catting" in an area which is not any more favorable than other extensive areas that are underlain by the Salt Wash member of the Morrison on the Plateau.

Mr. Mitcham's statement to the Company President expresses very well the nature of the proposed project: "The Joy property. . . is one of relatively high risk. However, . . . testing should be undertaken by high risk capital. If ore is intersected by one hole in this preliminary testing, then the risk will be considerably reduced, making it advisable to proceed to following phases."

I recommend this application be denied. If Company prospecting and drilling indicates favorable evidence and mineralization at some future time, then further consideration of a new application may be warranted.

E. L. Newcomb

E. L. Newcomb

IN REPLY REFER TO:

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

January 21, 1955

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(Joy Claim Group)
Grand Co., Utah
$116,000 - Uranium

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ELNewcomb:hlm
G-1/21/55
CC: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

E. L. Newcomb

IN REPLY REFER TO:

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

January 21, 1955

Re: DMEA-3640
Strategic Minerals, Inc,
(Joy Claim Group)
Grand Co., Utah
$110,000 - Uranium

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

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G-1/21/55
CC: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

E. L. Newcomb

IN REPLY REFER TO:

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

RECEIVED

January 21, 1955

Re: DMEA-3640
Strategic Minerals, Inc.
(Joy Claim Group)
Grand Co., Utah
$110,000 - Uranium

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G-1/21/55
CC: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

E. L. Newcomb

1/21/55 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 21 1955

January 19, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3640, Strategic Minerals, Inc., Jay claims,
Grand County, Utah

I have reviewed the subject report and have discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

We concur with the field team's recommendation that the application be returned to Strategic Minerals, Inc., inasmuch as the proposal does not represent a sound exploration-development program, and the applicant has given no indication of any initial prospecting on his part nor evidence of uranium mineralization on the Jay claims.

A copy of the application is attached.

John E. Crawford
John E. Crawford

Attachment

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford
F i l e s

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 21 1955

January 19, 1955

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Division of Minerals
J. O. Hosted (2)
J. E. Crawford
F i l e s

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

Defense Minerals Administration
RECEIVED
JAN 21 1955

January 19, 1955

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Uranium Commodity Committee, Room 4445

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A copy of the application is attached.

John E. Crawford

Attachment

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford
F i l e s

January 18, 1955
Subject: DMEA-3640
Re: Exploration Assistance
Joy group

Strategic Minerals, Inc., of Texas
Post Office Box 14396
Houston 21, Texas

Gentlemen:

The receipt of your application dated January 7, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3640 and referred to the Rare and Miscellaneous Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

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

224 New Customhouse
Denver 2, Colorado

January 14, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Application for DMEA assistance (Uranium), Strategic Minerals, Inc., Jay group of claims, Grand County, Utah

Enclosed are all four copies of the subject application in the amount of $116,000.00 which was sent to this office by the applicant.

The proposals set forth in the application are purely prospecting in nature, not based on definite target areas, and therefore are not within the limits of the Defense Minerals Exploration Program.

We recommend the application be returned to Strategic Minerals, Inc.

W H King
W. H. King

Enclosures

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
JAN 1 6 1955

STRATEGIC MINERALS, INC.,
OF TEXAS

W. RUSSELL PRYOR, PRESIDENT
P. O. BOX 14396 • HOUSTON 21, TEXAS

THOMAS W. MITCHAM, PH.D., CHIEF GEOLOGIST
P. O. BOX 61 • GRAND JUNCTION, COLORADO

January 7, 1955

Date Rec'd,
JAN 11 1955
BUREAU OF MINES
Denver, Colorado

Mr. W. H. King, Executive Officer
DMEA Field Team, Region #4
224 New Custom House Building
Denver 2, Colorado

Dear Sir:

We are submitting herein an application for aid in an exploration project (four copies). We shall appreciate your consideration of our application.

TWM/tm

Very truly yours,

W. Russell Pryor

W. Russell Pryor

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

RECEIVED

DMEA 3640
Uranium
1-17-55
$116,000

1. Name of applicant.-

(a) Strategic Minerals, Incorporated, of Texas
Post Office Box 14396
Houston 21, Texas

(b) Incorporated in Texas

(c) President: W. Russell Pryor
3103 S. Breaswood
Houston, Texas

Vice President: H. L. Harang
716 Medical Arts Building
Houston, Texas

Secretary: T. A. Thornhill
320 Winkler
Houston, Texas

Treasurer: H. H. Johnston
418 Hogan
Houston, Texas

Asst. Treasurer: R. M. Dawson
4814 Willow
Houston, Texas

Asst. Secretary: E. D. Coulson
San Jacinto Building
Houston, Texas

(d) not applicable

2. General.- (complied with)

3. Applicants property rights.-

(a) The land under discussion is situated in Grand County, State of Utah, Townships 21 and 22 south, Range 24 east, Salt Lake Base and Meridian. The area contains approximately 6,500 acres covered by valid lode mining claims and three State of Utah uranium leases (Attachment B, Figure 1).

(b) Joy group

(c) Strategic Minerals, Inc., of Texas holds by possessory rights 366 lode mining claims (Attachment B, Figure 1). The company also holds three State leases in the area, but these are not here considered as a part of the Joy group.

(d) not applicable

(e) A one-third interest of the net profit in three of the lode mining claims is owned by James W. Keough and John E. Keough. However, Strategic Minerals, Inc., of Texas controls their interest. Their interests are in the following named claims only:

Joy #229
Joy #231
Joy #233

(f) See Attachment A - for list of claims.

4. Physical description.-

(a) There are no mine workings on the property. Road access to the property is shown on Attachment B, Figure 2.

(b) No past or present production nor ore reserves.

(c) See Attachment B which includes two maps (Figures #1, and #2).

(d) Proposed drilling areas are near good graded roads at an average distance of about 7 miles from the rail siding at Cisco, Utah (Figure 2 of Attachment B). Ore and supplies could be moved by rail or highway to Grand Junction, Colorado - a distance of about 53 miles. A total of three miles of drilling roads will have to be constructed on the property.

(e) Adequate manpower is available at Fruita, Colorado - a distance of 47 miles from the property. A few men are available at Cisco, Utah - only seven miles from the property.

Materials, supplies, and equipment will be furnished from Grand Junction, Colorado by Strategic Minerals, Inc., of Texas or its contractors.

Adequate water is available from the Colorado River which crosses the property. Diesel power will be provided on the property.

5. The exploration project.-

(a) Uranium and vanadium

(b) The proposed work is described fully on Attachment B, pages 4 and 5, under "Recommendations".

(c) The work will start within 30 days and be completed within 12 months from the date of an exploration project contract.

(d) The applicant is a new exploration company with little operating experience. However, the work will be supervised by Thomas W. Mitcham who has had two years of experience in most phases of mining as engineer and Assistant Chief Engineer of the Shattuck-Denn Mining Company; two years as resident geologist and two years as an exploration geologist for the American Smelting and Refining Company; a year as exploration engineer for the Mexican-American Metals Syndicate; and one year as Assistant Chief Geologist for the USAEC in Grand Junction, Colorado. He also has one degree in mining engineering and two degrees in geology.

6. Estimate of costs.-

(a) Independent contracts.-

	per foot
Diamond drilling, Phase #1	$ 3.20
Rotary drilling, Phases #2, #3	1.21
Access roads	0.50

(b) Labor, supervision, consultants.-

	per foot of drilling
1 geologist - engineer, full time for 12 months - salary and field expenses - $9000.	0.16
1 laborer, (act as helper, sampler, and errand man) - wages and field expenses - $5460.	0.10
1 supervisor (chief geologist), 4 days per month @ $55.00 per day including field expenses - $2640.	0.05

(c) Materials and supplies furnished by drilling contractor.

(d) Operating equipment. - Only use of applicants vehicles which is a small cost included in item "g" below.

(e) Rehabilitation and repairs. - none included

(f) New buildings, improvements, installations. - Small work shack and bunk house $1600. - per foot of drilling ---------- 0.03

(g) Miscellaneous.-

Use of applicants vehicles (excluding fuel and lubrication which are included in field expenses of personnel) 7000 miles @ 5¢ per mile or ---------- $350.

Accounting, payroll taxes, liability etc. ------ $300.

Assay, $20./drill hole for 144 holes	$ 2880.	
Total miscellaneous	3550.	
Per foot of drilling		0.06

(h) Contingencies. - none allowed

SUMMARY OF EXPLORATION COSTS

Total feet of diamond drilling	10,000
Total feet of rotary drilling	45,000
Total feet of drilling if all drilling phases are completed	55,000
Total feet of access road	16,000

Unit cost of diamond drilling:

Contract cost	3.20
Supervision, labor	0.31
Miscellaneous, installations	0.09
Total	$ 3.60

Unit cost of rotary drilling:

Contract cost	1.21
Supervision, labor	0.31
Miscellaneous, installations	0.09
Total	$ 1.61

Unit cost of access roads:

(per foot) $ 0.50

Cost of diamond drilling	$ 36,000
Cost of rotary drilling	72,000
Cost of access roads	8,000
Total cost if project is completed	$116,000

7. (a) We are prepared to furnish our share of the cost of the proposed project in accordance with regulations on Government participation.

(b) We propose to furnish our share of the cost by depositing, in cash, 25% of the estimated cost in a common bank account.

CERTIFICATION

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

Dated: 1-7-55, 1955.

Strategic Minerals, Inc., of Texas
(Applicant)

By W. Russell Pryor
W. Russell Pryor, President

Attachments:

A. List of Joy group claims (8 pages).

B. Geologic report, Joy group
(6 pages and 2 figures)

TWM/lm

LIST OF JOY GROUP CLAIMS

Claim Name	Township	Range	Section	Book #	Page #
Joy #1	22S	24E	15	44	341
Joy #2	22S	24E	15	44	342
Joy #3	22S	24E	15	44	342
Joy #4	22S	24E	15	44	343
Joy #5	22S	24E	15	44	343
Joy #6	22S	24E	15	44	344
Joy #7	22S	24E	15	44	344
Joy #8	22S	24E	15	44	345
Joy #9	22S	24E	15	44	345
Joy #10	22S	24E	15	44	346
Joy #11	22S	24E	15	44	346
Joy #12	22S	24E	15	44	347
Joy #13	22S	24E	15	44	347
Joy #14	22S	24E	15	44	348
Joy #15	22S	24E	15	44	348
Joy #16	22S	24E	15	44	349
Joy #17	22S	24E	15	44	349
Joy #18	22S	24E	15	44	350
Joy #19	22S	24E	14 & 15	44	350
Joy #20	22S	24E	14 & 15	44	351
Joy #21	22S	24E	14	44	351
Joy #22	22S	24E	14	44	352
Joy #23	22S	24E	14	44	352
Joy #24	22S	24E	14	44	353
Joy #25	22S	24E	14	44	353
Joy #26	22S	24E	14	44	354
Joy #27	22S	24E	14	44	354
Joy #28	22S	24E	14	44	355
Joy #29	22S	24E	14	44	355
Joy #30	22S	24E	14	44	356
Joy #31	22S	24E	14	44	356
Joy #32	22S	24E	14	44	357
Joy #33	22S	24E	14	44	357
Joy #34	22S	24E	14	44	358
Joy #35	22S	24E	14	44	358
Joy #36	22S	24E	14	44	359
Joy #37	22S	24E	13 & 14	44	359
Joy #38	22S	24E	13 & 14	44	360
Joy #39	22S	24E	13	44	360
Joy #40	22S	24E	13	44	361
Joy #41	22S	24E	13	44	361
Joy #42	22S	24E	13	44	362
Joy #43	22S	24E	9 & 10	44	362
Joy #44	22S	24E	9 & 10	44	363
Joy #45	22S	24E	10	44	363
Joy #46	22S	24E	10	44	364
Joy #47	22S	24E	10	44	364
Joy #48	22S	24E	10	44	365
Joy #49	22S	24E	10	44	365
Joy #50	22S	24E	10	44	366

Claim Name	Township	Range	Section	Book #	Page #
Joy #51	22S	24E	10	44	366
Joy #52	22S	24E	10	44	367
Joy #53	22S	24E	10	44	367
Joy #54	22S	24E	10	44	368
Joy #55	22S	24E	10	44	368
Joy #56	22S	24E	10	44	369
Joy #57	22S	24E	10	44	369
Joy #58	22S	24E	10	44	370
Joy #59	22S	24E	10	44	370
Joy #60	22S	24E	10	44	371
Joy #61	22S	24E	10 & 11	44	371
Joy #62	22S	24E	10 & 11	44	372
Joy #63	22S	24E	11	44	372
Joy #64	22S	24E	11	44	373
Joy #65	22S	24E	11	44	373
Joy #66	22S	24E	11	44	374
Joy #67	22S	24E	11	44	374
Joy #68	22S	24E	11	44	375
Joy #69	22S	24E	11	44	375
Joy #70	22S	24E	11	44	376
Joy #71	22S	24E	11	44	376
Joy #72	22S	24E	11	44	377
Joy #73	22S	24E	11	44	377
Joy #74	22S	24E	11	44	378
Joy #75	22S	24E	11	44	378
Joy #76	22S	24E	11	44	379
Joy #77	22S	24E	11	44	379
Joy #78	22S	24E	11	44	380
Joy #79	22S	24E	11 & 12	44	380
Joy #80	22S	24E	11 & 12	44	381
Joy #81	22S	24E	12	44	381
Joy #82	22S	24E	12	44	382
Joy #83	22S	24E	12	44	382
Joy #84	22S	24E	12	44	383
Joy #85	22S	24E	9	44	383
Joy #86	22S	24E	9	44	384
Joy #87	22S	24E	9	44	384
Joy #88	22S	24E	9	44	385
Joy #89	22S	24E	9 & 10	44	385
Joy #90	22S	24E	9 & 10	44	386
Joy #91	22S	24E	10	44	386
Joy #92	22S	24E	10	44	387
Joy #93	22S	24E	10	44	387
Joy #94	22S	24E	10	44	388
Joy #95	22S	24E	10	44	388
Joy #96	22S	24E	10	44	389
Joy #97	22S	24E	10	44	389
Joy #98	22S	24E	10	44	390
Joy #99	22S	24E	10	44	390
Joy #100	22S	24E	10	44	391

Claim Name	Township	Range	Section	Book #	Page #
Joy #101	22S	24E	10	44	391
Joy #102	22S	24E	10	44	392
Joy #103	22S	24E	10	44	392
Joy #104	22S	24E	10	44	393
Joy #105	22S	24E	10 & 11	44	393
Joy #106	22S	24E	10 & 11	44	394
Joy #107	22S	24E	11	44	394
Joy #108	22S	24E	11	44	395
Joy #109	22S	24E	11	44	395
Joy #110	22S	24E	11	44	396
Joy #111	22S	24E	11	44	396
Joy #112	22S	24E	11	44	397
Joy #113	22S	24E	11	44	397
Joy #114	22S	24E	11	44	398
Joy #115	22S	24E	11	44	398
Joy #116	22S	24E	11	44	399
Joy #117	22S	24E	11	44	399
Joy #118	22S	24E	11	44	400
Joy #119	22S	24E	11	44	400
Joy #120	22S	24E	11	44	401
Joy #121	22S	24E	11	44	401
Joy Rotate #121	22S	24E	11	55	554
Joy #122	22S	24E	11	44	402
Joy #123	22S	24E	11 & 12	44	402
Joy Rotate #123	22S	24E	11 & 12	55	554
Joy #124	22S	24E	11 & 12	44	403
Joy #125	22S	24E	12	44	403
Joy Rotate #125	22S	24E	12	55	555
Joy #126	22S	24E	12	44	404
Joy #127	22S	24E	12	44	404
Joy Rotate #127	22S	24E	12	55	555
Joy #128	22S	24E	12	44	405
Joy #129	22S	24E	3	44	405
Joy #130	22S	24E	3	44	406
Joy #131	22S	24E	3	44	406
Joy #132	22S	24E	3	44	407
Joy #133	22S	24E	3	44	407
Joy #134	22S	24E	3	44	408
Joy #135	22S	24E	3	44	408
Joy #136	22S	24E	3	44	409
Joy #137	22S	24E	3	44	409
Joy #138	22S	24E	3	44	410
Joy #139	22S	24E	3	44	410
Joy #140	22S	24E	3	44	411
Joy #141	22S	24E	3	44	411
Joy #142	22S	24E	3	44	412
Joy #143	22S	24E	3 & 4	44	412
Joy #144	22S	24E	3 & 4	44	413
Joy #145	22S	24E	3	44	413
Joy #146	22S	24E	3	44	414
Joy #147	22S	24E	3	44	414
Joy #148	22S	24E	3	44	415
Joy #149	22S	24E	3	44	415
Joy #150	22S	24E	3	44	416

Claim Name	Township	Range	Section	Book #	Page #
Joy #151	22S	24E	3	44	416
Joy #152	22S	24E	3	44	417
Joy #153	22S	24E	3	44	417
Joy #154	22S	24E	3	44	418
Joy #155	22S	24E	3	44	418
Joy #156	22S	24E	3	44	419
Joy #157	22S	24E	3	44	419
Joy #158	22S	24E	3	44	420
Joy #159	22S	24E	3	44	420
Joy Rotate #159	22S	24E	3	49	494
Joy #160	22S	24E	3	44	421
Joy #161	22S	24E	3	44	421
Joy Rotate #161	22S	24E	3	49	494
Joy #162	22S	24E	3	44	422
Joy #163	21S	24E	34	44	422
Joy #164	21S	24E	34	44	423
Joy #165	21S	24E	34	44	423
Joy #166	21S	24E	34	44	424
Joy #167	21S	24E	34	44	424
Joy #168	21S	24E	34	44	425
Joy #169	21S	24E	34	44	425
Joy #170	21S	24E	34	44	426
Joy #171	21S	24E	34	44	426
Joy #172	21S	24E	34	44	427
Joy #173	21S	24E	34	44	427
Joy #174	21S	24E	34	44	428
Joy #175	21S	24E	34	44	428
Joy #176	21S	24E	34	44	429
Joy #177	21S	24E	35	44	429
Joy #178	21S	24E	35	44	430
Joy #179	21S	24E	35	44	430
Joy #180	21S	24E	35	44	431
Joy #181	21S	24E	35	44	431
Joy #182	21S	24E	35	44	432
Joy #183	21S	24E	35	44	432
Joy #184	21S	24E	35	44	433
Joy #185	21S	24E	34	44	433
Joy #186	21S	24E	34	44	434
Joy #187	21S	24E	35	44	434
Joy #188	21S	24#	34	44	435
Joy #189	21S	24E	35	44	435
Joy #190	21S	24E	34	44	436
Joy #191	21S	24E	27 & 34	44	436
Joy #192	21S	24E	34	44	437
Joy #193	21S	24E	27 & 34	44	437
Joy #194	21S	24E	34 & 35	44	438
Joy #195	21S	24E	27 & 34	44	438
Joy #196	21S	24E	35	44	439
Joy #197	21S	24#	28	44	439
Joy #198	21S	24E	35	44	440
Joy #199	21S	24E	28	44	440
Joy #200	21S	24E	35	44	441

Claim Name	Township	Range	Section	Book #	Page #
Joy #201	21S	24E	28	44	441
Joy #202	21S	24E	35	44	442
Joy #203	21S	24E	28	44	442
Joy #204	21S	24E	28	44	443
Joy #205	21S	24E	28	44	443
Joy #206	21S	24E	27	44	444
Joy #207	21S	24E	28	44	444
Joy #208	21S	24E	27	44	445
Joy #209	21S	24E	28	44	445
Joy #210	21S	24E	27	44	446
Joy #211	21S	24E	27	44	446
Joy #212	21S	24E	27	44	447
Joy #213	21S	24E	27	44	447
Joy #214	21S	24E	27	44	448
Joy #215	21S	24E	27	44	448
Joy #216	21S	24E	27	44	449
Joy #217	21S	24E	27	44	449
Joy #218	21S	24E	27	44	450
Joy #219	21S	24E	28	44	450
Joy #220	21S	24E	21 & 28	44	451
Joy #221	21S	24E	28	44	451
Joy #222	21S	24E	21 & 28	44	452
Joy #223	21S	24E	28	44	452
Joy #224	21S	24E	21 & 28	44	453
Joy #225	21S	24E	28	44	453
Joy #226	21S	24E	21 & 28	44	454
Joy #227	21S	24E	28	44	454
Joy #228	21S	24E	21 & 28	44	455
Joy #229	21S	24E	21 & 28	44	455
Joy #230	21S	24E	21 & 28	44	456
Joy #231	21S	24E	28	44	456
Joy #232	21S	24E	21 & 28	44	457
Joy #233	21S	24E	27	44	457
Joy #234	21S	24E	22 & 27	44	458
Joy #235	21S	24E	27	44	458
Joy #236	21S	24E	22 & 27	44	459
Joy #237	21S	24E	27	44	459
Joy #238	21S	24E	22 & 27	44	460
Joy #239	21S	24E	27	44	460
Joy #240	21S	24E	21	44	461
Joy #241	21S	24E	21	44	461
Joy #242	21S	24E	22	44	462
Joy #243	21S	24E	22	44	462
Joy #244	21S	24E	22	44	463
Joy #245	21S	24E	22	44	463
Joy #246	21S	24E	21	44	464
Joy #247	21S	24E	21	44	464
Joy #248	21S	24E	15	44	465
Joy #249	21S	24E	21	44	465
Joy #250	21S	24E	15	44	466

Claim Name	Township	Range	Section	Book #	Page #
Joy #251	21S	24E	21	44	466
Joy #252	21S	24E	15	44	467
Joy #253	21S	24E	21	44	467
Joy #254	21S	24E	15	44	468
Joy #255	21S	24E	21	44	468
Joy #256	21S	24E	15	44	469
Joy #257	21S	24E	15 & 22	44	469
Joy #258	21S	24E	15	44	470
Joy #259	21S	24E	15 & 22	44	470
Joy #260	21S	24E	15	44	471
Joy #261	21S	24E	15 & 22	44	471
Joy #262	21S	24E	15	44	472
Joy #263	21S	24E	15	44	472
Joy #264	21S	24E	15	44	473
Joy #265	21S	24E	15	44	473
Joy #266	21S	24E	15	44	474
Joy #267	21S	24E	15	44	474
Joy #268	21S	24E	15	44	475
Joy #269	21S	24E	15	44	475
Joy #270	21S	24E	15	44	476
Joy #271	21S	24E	15 & 22	44	476
Joy #272	21S	24E	22	44	477
Joy #273	21S	24E	22	44	477
Joy #274	22S	24E	13	44	478
Joy #275	22S	24E	13 & 24	44	478
Joy #276	22S	24E	13	44	479
Joy #277	22S	24E	13,14,23,24	44	479
Joy #278	22S	24E	14	44	480
Joy #279	22S	24E	14 & 23	44	480
Joy #280	22S	24E	14	44	481
Joy #281	22S	24E	14 & 23	44	481
Joy #282	22S	24E	14	14	482
Joy #283	22S	24E	14 & 23	44	482
Joy E284	22S	24E	14	44	483
Joy #285	22S	24E	14 & 23	44	483
Joy #286	22S	24E	14	44	484
Joy #287	22S	24E	14 & 23	44	484
Joy #288	22S	24E	14	44	485
Joy #289	22S	24E	14 & 23	44	485
Joy #290	22S	24E	14	44	486
Joy #291	22S	24E	14 & 23	44	486
Joy #292	22S	24E	14	44	487
Joy #293	22S	24E	14 & 23	44	487
Joy #294	22S	24E	14	44	488
Joy #295	22S	24E	14 & 23	44	488
Joy #296	22S	24E	14 & 15	44	489
Joy #297	22S	24E	14,15,22,23	44	489
Joy #298	22S	24E	15	44	490
Joy #299	22S	24E	15 & 22	44	490
Joy #300	22S	24E	15	44	491

Claim Name	Township	Range	Section	Book #	Page #
Joy #301	22S	24E	15 & 22	44	491
Joy #302	22S	24E	15	44	496
Joy #303	22S	24E	15 & 22	44	492
Joy #304	22S	24E	15	44	493
Joy #305	22S	24E	15 & 22	44	493
Joy #306	22S	24E	15	44	494
Joy #307	22S	24E	15 & 22	44	494
Joy #308	22S	24E	15	44	495
Joy #309	22S	24E	15 & 22	44	495
Joy #310	22S	24E	15	44	496
Joy #311	22S	24E	15 & 22	44	496
Joy #312	22S	24E	3	49	508
Joy #313	22S	24E	3	49	508
Joy #314	22S	24E	10	49	509
Joy #315	22S	24E	3 & 10	50	20
Joy #316	22S	24E	9	49	509
Joy #317	22S	24E	9	49	510
Joy #318	22S	24E	11	49	510
Joy #319	22S	24E	3 & 10	50	21
Joy #320	22S	24E	15	50	21
Joy #321	22S	24E	15	49	511
Joy #322	22S	24E	10	49	511
Joy #323	22S	24E	11	49	512
Joy #324	22S	24E	13	55	556
Joy #325	22S	24E	13 & 14	55	556
Joy #326	22S	24E	14	55	557
Joy #327	22S	24E	14	55	557
Joy #328	22S	24E	14 & 15	55	558
Joy #329	21S	24E	34	49	512
Joy #330	21S	24E	34	49	513
Joy #331	21S	24E	34	49	513
Joy #332	21S	24E	34	49	514
Joy #333	21S	24E	34	49	514
Joy #334	22S	24E	15	55	558
Joy #335	21S	24E	27 & 34	49	515
Joy #336	22S	24E	15	55	559
Joy #337	21S	24E	34	49	515
Joy #338	22S	24E	15	55	559
Joy #339	21S	24E	27 & 34	49	516
Joy #340	22S	24E	15	55	560
Joy #341	21S	24E	34	49	516
Joy #342	22S	24E	15	55	560
Joy #343	22S	24E	15	55	561
Joy #345	21S	24E	34	49	517
Joy #346	22S	24E	13 & 14	55	561
Joy #347	21S	24E	27 & 34	49	518
Joy #348	22S	24E	14	55	567
Joy #349	22S	24E	14	55	562
Joy #350	22S	24E	14 & 15	55	563

Claim Name	Township	Range	Section	Book #	Page #
Joy #351	22S	24E	11 & 12	55	563
Joy #352	22S	24E	11	55	564
Joy #353	22S	24E	11	55	564
Joy #354	21S	24E	34	55	565
Joy #355	21S	24E	34	55	565
Joy #356	21S	24E	34	55	566
Joy #357	21S	24E	34	55	566
Joy #358	21S	24E	35 & 34	55	567
Joy #359	21S	24E	35	55	567
Joy #360	21S	24E	35	55	568

STRATEGIC MINERALS, INC.,
OF TEXAS

W. RUSSELL PRYOR, PRESIDENT
P. O. BOX 14396 • HOUSTON 21, TEXAS

THOMAS W. MITCHAM, PH.D., CHIEF GEOLOGIST
P. O. BOX 61 • GRAND JUNCTION, COLORADO

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
JAN 7 1955

January 4, 1955

Mr. W. Russell Pryor, President
Strategic Minerals, Inc. of Texas
P.O. Box 14396
Houston 21, Texas

Dear Sir:

GEOLOGIC REPORT, JOY GROUP
Cisco, Grand Co., Utah
Salt Wash

This geological report on the Joy group of claims replaces the preliminary report of November 23, 1954, revised December 7, 1954. Although rather cursory, studies to date justify the conclusions and recommendations of this report. However, detailed geologic mapping should be completed in the vicinity of postulated ore targets before drilling is started to allow better calibration of drill-hole positions.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The Joy property has good ore possibilities, but it is one of relatively high risk. It is recommended that $44,600. be invested as a first-phase testing of 23 selected ore targets. However, such testing should be undertaken by high-risk capital. If ore is intersected by one drill hole in this preliminary testing, then the risk will be considerably reduced, making it advisable to proceed to following phases.

MINERALIZATION

Fourteen areas of anomalous radioactivity were found in the area by airborne radiometric survey and subsequent ground checking. These are relatively weak, varying from 2 to 10 times background on a scintillation counter at ground level. One outcrop approaching ore grade was observed on Joy #120 in the NE quarter of Section 11, T22S, R24E (Figures 1 and 2).

Since the immediate area has no production history, nearby producing areas must be considered for comparative purposes, i.e. the Yellow Cat area which lies 13 miles to the southwest and the Polar Mesa area which lies 19 miles to the southeast. Considering the quality of geologically derived orebodies in these two areas, expectancy on size and grade in the Joy area would be orebodies of 2000 tons each, containing 0.30% U_3O_8 and 1.50% V_2O_5.

Ore in the Joy area would be typical of Salt Wash carnotite-vanadium ores.

GEOLOGIC SETTING

The Joy group lies on the northwest end on the Uncompahgre uplift which is an ancient positive area. All formations below the upper Chinle (Triassic) pinch out on approaching the uplift, and the upper Chinle rests on Precambrian rocks. The Joy group covers the Sand Flat graben and its immediate flanks. This graben is bounded on the north by the Courage and Dry Gulch faults and on the south, by the Gamma and Decision faults (Figure 2).

Ore is most likely to be found in the "Lower sand" of the Salt Wash member of the Morrison formation. The "Lower sand" is about 53 feet in thickness and it lies 230 feet below the top of the Salt Wash. Also the "Middle" and "Upper" sands, which are thinner and which lie stratigraphically above the "Lower sand", are favorable ore horizons.

Thicknesses on a stratigraphic section which was measured in the northern part of the Joy group are given below.

Formation or Member	Thickness, Feet
Dakota (Cretaceous)	45
Burro Canyon (Cretaceous)	68
Brushy Basin (Jurassic)	343
Salt Wash (Jurassic)	334

CONTROLS AND OTHER GUIDES

Sandy facies in the Salt Wash with at least one relatively short lateral dimension are common on the property. Such sedimentary structures, which are typical of fluvial sediments, are considered as favorable to ore deposition.

Tectonic structure is particularly favorable on the Joy group. Degree of openness of ground is an important control of ore deposition. Faults and other fractures are abundant in the area (Figure 2).

Yellow-brown limonite stain is observed as scattered patches in the area. This staining and anomalous radioactivity are applicable ore guides.

TRENDS AND TARGETS

It is assumed that the sedimentary structure and lithology is favorable at any point on the claim group in at least one of the favorable sand horizons

(Upper, Middle, and Lower). Ore targets are selected near points which are most likely to display the maximum degree of openness of ground, i.e. near fracture intersections or near changes in spatial attitude of fracture planes.

Generally, observed anomalous radioactivity is very near fractures or on outcrops of favorable Salt Wash sands extending from nearby fractured areas.

Loci at which orebodies are likely to be found are considered to be along the major faults which bound the Sand Flat graben on the north and south. Twenty-three targets are selected along these faults (Figure 2). It is considered possible that three orebodies averaging 2000 tons each will be found at 15 of the 23 selected targets. These orebodies are considered to contain 0.30% U_3O_8 and 1.50% V_2O_5. Risk involved in allowing the possibility of 45 orebodies containing a total of 90,000 tons of ore is discussed at the end of this report.

For the purposes of discussion, these 2000 ton orebodies are assumed to be horizontally tabular and 5 feet in thickness. Lateral dimensions are assumed to be 20x320 feet, the long dimension being oriented west to northwest.

LAND STATUS

The Company holds mineral rights on approximately 6500 acres which comprise the Joy group. This includes some State leases as well as the lode mining claims (Figure 1). The land covered is within the Dewey reservoir site. It is very doubtful that a dam will ever be built in the area, and even if a decision to construct a dam were made today, at least 5 years of time would elapse before inundation, allowing ample time for extraction of any ore in the area.

The Joy group includes 360 claims which are named Joy #1-360, inclusive. Six of those have been changed to "Joy Rotate" claims bearing the same numbers as the "Joy" claims which they overlap. Claim-corner and discovery monuments, which total to over 1000, are mostly sturdy white-washed stone monuments averaging about 18 inches in height. The remainder are 4-inch posts over 3 feet in height. Land status in the area has been carefully checked by the writer. Mr. C. Jay Parkinson, our attorney in Salt Lake City, has reviewed and approved our claim-staking procedures.

ECONOMIC FACTORS

Drilling: Drilling depths to test the selected targets will average about 435 feet and vary from 320 feet in Section 28, T21S, R24E to 550 feet in Section 9, T22S, R24E (Figure 2). Total drilling costs per foot will be about $3.60 for diamond drilling and $1.50 - 1.75 for rotary drilling.

Roads: About 3 miles of access roads will be needed. For drilling roads, this would cost about $8000. To convert these to ore-haulage roads would cost an additional $6000.

Surface haulage: Ore could be moved by several routings, but it is assumed that it would be trucked an average of 7 miles to the rail siding at Cisco and then be moved 53 miles by rail to the Climax Uranium mill in Grand Junction. Considering Government haulage allowance, haulage costs would be a maximum of $0.35 per ton.

All ore targets shown on Figure 2 are west of the Colorado River. Should ore be found east of the river, it would be moved across the river by cable tram, adding about $0.50 per ton to surface haulage costs.

Water, power, labor: Adequate water is available from the Colorado River which crosses the property. This fact may create some mine drainage problems, particularly in the target areas in Section 11, T22S, R24E. Power would have to be developed on the property -- probably diesel power. The nearest sizable labor supply is Fruita, Colorado, a distance of about 47 miles. Steady mining operations would demand the construction of a bunk house on the property.

Development: It is assumed that one 440-foot shaft and 1000 feet of lateral openings (cross-cuts) will serve to extract each 10,000 tons of ore. Thus, shaft-sinking per ton would be 0.044 feet @ $150. or $6.60. Cross-cutting per ton would be 0.10 feet @ $25. or $2.50. Also, an underground development drilling cost of $1.50 per ton should be allowed. Thus total development costs are estimated at $10.60 per ton.

Government Bonus: It is safe to assume that this property could be certified for A.E.C. bonus in at least three divisions since discoveries would be widely separated. Thus, it is assumed that the full initial production bonus of $35,000 would be awarded three times, resulting in a total of $105,000. in bonus payments for the Joy property.

RECOMMENDATIONS

1. Prepare detailed geologic maps in the vicinity of target areas. Cost: $600; time: 2 man-weeks.

2. Prepare drilling access roads. Cost: $8000. Time: 2 weeks.

3. Phase #1 drilling: Drill one diamond drill hole on each of the 23 selected targets (Figure 2). This will require about 10,000 feet of drilling @ $3.60. Cost: $36,000. Time: 5 months.

4. Phase #2 drilling: If at least one ore hole results from Phase #1 drilling, then it would be advisable to proceed to Phase #2. Drill two rotary holes at 100-foot spacing on each of the 23 targets. This will require about 20,000 feet of drilling @ $1.75. Cost: $35,000. Time: 3 months.

5. Phase #3 drilling: Drill 5 additional rotary holes at each target on which ore has been intersected by previous drilling. Assumption: Ore will have been intersected at 15 of the 23 targets. This would require 25,000 feet of drilling @ $1.50. Cost: $37,500. Time: 4 months. ?

6. Proceed to mining phase to extract discovered orebodies and select other targets for testing which will now be apparent.

OUTCOME

Calculations on predicted outcome are based on an assumed production rate of 2000 tons per month and all the other factors discussed above under "Targets and trends", "Economic factors", and "Recommendations".

Costs:

Plant and Other Initial Costs	per ton
Access roads - - - - - - - -	0.15
Surface plant - - - - - - - -	0.60
Initial drilling - - - - - - -	1.25
Total -	$ 2.00

Operating Extraction Costs	
Development - - - - - - - - - -	10.60
Ore-breaking - - - - - - - - -	3.50
Underground haulage - - - - -	0.60
Hoisting - - - - - - - - - - -	0.80
Ventilation - - - - - - - - - -	0.25
Maintenance - - - - - - - - - -	1.70
Waste disposal - - - - - - - -	0.10
Drainage - - - - - - - - - - -	0.10
Surface haulage - - - - - - - -	0.35
Indirect costs - - - - - - - -	3.00
Total -	$ 21.00
Total Cost Per Ton - - - - -	$ 23.00

Income:

Initial production bonus* - -	1.17
Uranium oxide in 0.30% ore -	25.50
Vanadium oxide in 1.50% ore -	9.30
Total Income Per Ton - - - -	$ 35.97

Outcome:

	Per ton
Total income - - - - - - - - - -	$ 35.97
Total costs - - - - - - - - - -	23.00
EXPECTED OUTCOME PER TON - - -	$ 12.97

The initial production bonus of $1.17* per ton, as given in the above table, is based on the assumption that a total of 90,000 tons of ore will be extracted from the property. If the property produces twice this much, this figure would be only $0.50 per ton, reducing the expected outcome to $12.39.

Costs as given in the table include all direct and indirect costs chargeable to the mine. Corporate overhead, considered as minor, is excluded.

RISK

The Joy property is one of relatively high risk, and its testing should be undertaken by capital which can afford that risk.

If Phase #1 drilling results in even one ore hole, the risk would be considerably reduced. The investment to accomplish Phase #1 drilling is considered as the "exploration investment". In the consideration of risk, all subsequent expenditures may logically be considered as "development". The "exploration investment" would be $44,600. (through step#3 of "Recommendations").

If 90,00o tons of ore were discovered as assumed above in the discussion of "Trends and targets", the property would have an estimated value of 90,000 x 12.97 or $1,167,300. This would be a pay-off on the exploration investment of about 26:1. In our opinion the odds for such a pay-off are 1:10. The best possible reward is considered as about 2½ million, a pay-off of about 50:1. The odds for such a pay-off are considered as 1:15.

Very truly yours,

Thomas W. Mitcham

Figures:

1. Claim map, Joy group
2. Geologic map, Joy group

TWM/lh

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

224 New Customhouse
Denver 2, Colorado

January 14, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Application for DMEA assistance (Uranium), Strategic Minerals, Inc., Jay group of claims, Grand County, Utah

Enclosed are all four copies of the subject application in the amount of $116,000.00 which was sent to this office by the applicant.

The proposals set forth in the application are purely prospecting in nature, not based on definite target areas, and therefore are not within the limits of the Defense Minerals Exploration Program.

We recommend the application be returned to Strategic Minerals, Inc.

W. H. King

Enclosures

DEPARTMENT OF THE INTERIOR
Land Law Examiner
RECEIVED
JAN 17 1955

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

DMEA 3640
Uranium
1-17-55
$116,000

1. Name of applicant.-

(a) Strategic Minerals, Incorporated, of Texas
Post Office Box 14396
Houston 21, Texas

(b) Incorporated in Texas

(c)

President:	W. Russell Pryor 3103 S. Breaswood Houston, Texas
Vice President:	H. L. Harang 716 Medical Arts Building Houston, Texas
Secretary:	T. A. Thornhill 520 Winkler Houston, Texas
Treasurer:	H. H. Johnston 418 Hogan Houston, Texas
Asst. Treasurer:	R. M. Dawson 4814 Willow Houston, Texas
Asst. Secretary:	E. D. Coulson San Jacinto Building Houston, Texas

(d) not applicable

2. General.- (complied with)

3. Applicants property rights.-

(a) The land under discussion is situated in Grand County, State of Utah, Townships 21 and 22 south, Range 24 east, Salt Lake Base and Meridian. The area contains approximately 8,500 acres covered by valid lode mining claims and three State of Utah uranium leases (Attachment B, Figure 1).

(b) Joy group

(c) Strategic Minerals, Inc., of Texas holds by possessory rights 366 lode mining claims (Attachment B, Figure 1). The company also holds three State leases in the area, but these are not here considered as a part of the Joy group.

(d) not applicable

(e) A one-third interest of the net profit in three of the lode mining claims is owned by James W. Keough and John E. Keough. However, Strategic Minerals, Inc., of Texas controls their interest. Their interests are in the following named claims only:

Joy #229
Joy #231
Joy #233

(f) See Attachment A - for list of claims.

4. Physical description.-

(a) There are no mine workings on the property. Road access to the property is shown on Attachment B, Figure 2.

(b) No past or present production nor ore reserves.

(c) See Attachment B which includes two maps (Figures #1, and #2).

(d) Proposed drilling areas are near good graded roads at an average distance of about 7 miles from the rail siding at Cisco, Utah (Figure 2 of Attachment B). Ore and supplies could be moved by rail or highway to Grand Junction, Colorado - a distance of about 55 miles. A total of three miles of drilling roads will have to be constructed on the property.

(e) Adequate manpower is available at Fruita, Colorado - a distance of 47 miles from the property. A few men are available at Cisco, Utah - only seven miles from the property.

Materials, supplies, and equipment will be furnished from Grand Junction, Colorado by Strategic Minerals, Inc., of Texas or its contractors.

Adequate water is available from the Colorado River which crosses the property. Diesel power will be provided on the property.

5. The exploration project.-

(a) Uranium and vanadium

(b) The proposed work is described fully on Attachment B, pages 4 and 5, under "Recommendations".

(c) The work will start within 30 days and be completed within 12 months from the date of an exploration project contract.

(d) The applicant is a new exploration company with little operating experience. However, the work will be supervised by Thomas W. Mitcham who has had two years of experience in most phases of mining as engineer and Assistant Chief Engineer of the Shattuck-Denn Mining Company; two years as resident geologist and two years as an exploration geologist for the American Smelting and Refining Company; a year as exploration engineer for the Mexican-American Metals Syndicate; and one year as Assistant Chief Geologist for the USAEC in Grand Junction, Colorado. He also has one degree in mining engineering and two degrees in geology.

6. Estimate of costs.-

(a) Independent contracts.-

	per foot
Diamond drilling, Phase #1	$ 3.20
Rotary drilling, Phases #2, #3	1.21
Access roads	0.50

(b) Labor, supervision, consultants.-

	per foot of drilling
1 geologist - engineer, full time for 12 months - salary and field expenses - $9000.	0.16
1 laborer, (act as helper, sampler, and errand man) - wages and field expenses - $5460.	0.10
1 supervisor (chief geologist), 4 days per month @ $55.00 per day including field expenses - $2640.	0.05

(c) Materials and supplies furnished by drilling contractor.

(d) Operating equipment. - Only use of applicants vehicles which is a small cost included in item "g" below.

(e) Rehabilitation and repairs. - none included

(f) New buildings, improvements, installations. - Small work shack and bunk house $1800. - per foot of drilling 0.03

(g) Miscellaneous.-

Use of applicants vehicles (excluding fuel and lubrication which are included in field expenses of personnel) 7000 miles @ 5¢ per mile or $350.

Accounting, payroll taxes, liability etc. $500.

Assay, $20./drill hole for 144 holes	$ 2880.	
Total miscellaneous	3550.	
Per foot of drilling		0.06

(h) Contingencies. - none allowed

SUMMARY OF EXPLORATION COSTS

Total feet of diamond drilling	10,000
Total feet of rotary drilling	45,000
Total feet of drilling if all drilling phases are completed	55,000
Total feet of access road	16,000

Unit cost of diamond drilling:

Contract cost	5.20
Supervision, labor	0.31
Miscellaneous, installations	0.09
Total	$ 5.60

Unit cost of rotary drilling:

Contract cost	1.21
Supervision, labor	0.31
Miscellaneous, installations	0.09
Total	$ 1.61

Unit cost of access roads:

(per foot) $ 0.50

Cost of diamond drilling	$ 36,000
Cost of rotary drilling	72,000
Cost of access roads	8,000
Total cost if project is completed	$116,000

7. (a) We are prepared to furnish our share of the cost of the proposed project in accordance with regulations on Government participation.

(b) We propose to furnish our share of the cost by depositing, in cash, 25% of the estimated cost in a common bank account.

CERTIFICATION

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

Dated: January 7, 1955.

Strategic Minerals, Inc., of Texas
(Applicant)

By W. Russell Pryor
W. Russell Pryor, President

Attachments:

A. List of Joy group claims (8 pages).

B. Geologic report, Joy group
(6 pages and 2 figures)

TWM/lm

LIST OF JOY GROUP CLAIMS

Claim Name	Township	Range	Section	Book #	Page #
Joy #1	22S	24E	15	44	341
Joy #2	22S	24E	15	44	342
Joy #3	22S	24E	15	44	342
Joy #4	22S	24E	15	44	343
Joy #5	22S	24E	15	44	343
Joy #6	22S	24E	15	44	344
Joy #7	22S	24E	15	44	344
Joy #8	22S	24E	15	44	345
Joy #9	22S	24E	15	44	345
Joy #10	22S	24E	15	44	346
Joy #11	22S	24E	15	44	346
Joy #12	22S	24E	15	44	347
Joy #13	22S	24E	15	44	347
Joy #14	22S	24E	15	44	348
Joy #15	22S	24E	15	44	348
Joy #16	22S	24E	15	44	349
Joy #17	22S	24E	15	44	349
Joy #18	22S	24E	15	44	350
Joy #19	22S	24E	14 & 15	44	350
Joy #20	22S	24E	14 & 15	44	351
Joy #21	22S	24E	14	44	351
Joy #22	22S	24E	14	44	352
Joy #23	22S	24E	14	44	352
Joy #24	22S	24E	14	44	353
Joy #25	22S	24E	14	44	353
Joy #26	22S	24E	14	44	354
Joy #27	22S	24E	14	44	354
Joy #28	22S	24E	14	44	355
Joy #29	22S	24E	14	44	355
Joy #30	22S	24E	14	44	356
Joy #31	22S	24E	14	44	356
Joy #32	22S	24E	14	44	357
Joy #33	22S	24E	14	44	357
Joy #34	22S	24E	14	44	358
Joy #35	22S	24E	14	44	358
Joy #36	22S	24E	14	44	359
Joy #37	22S	24E	13 & 14	44	359
Joy #38	22S	24E	13 & 14	44	360
Joy #39	22S	24E	13	44	360
Joy #40	22S	24E	13	44	361
Joy #41	22S	24E	13	44	361
Joy #42	22S	24E	13	44	362
Joy #43	22S	24E	9 & 10	44	362
Joy #44	22S	24E	9 & 10	44	363
Joy #45	22S	24E	10	44	363
Joy #46	22S	24E	10	44	364
Joy #47	22S	24E	10	44	364
Joy #48	22S	24E	10	44	365
Joy #49	22S	24E	10	44	365
Joy #50	22S	24E	10	44	366

Claim Name	Township	Range	Section	Book #	Page #
Joy #51	22S	24E	10	44	366
Joy #52	22S	24E	10	44	367
Joy #53	22S	24E	10	44	367
Joy #54	22S	24E	10	44	368
Joy #55	22S	24E	10	44	368
Joy #56	22S	24E	10	44	369
Joy #57	22S	24E	10	44	369
Joy #58	22S	24E	10	44	370
Joy #59	22S	24E	10	44	370
Joy #60	22S	24E	10	44	371
Joy #61	22S	24E	10 & 11	44	371
Joy #62	22S	24E	10 & 11	44	372
Joy #63	22S	24E	11	44	372
Joy #64	22S	24E	11	44	373
Joy #65	22S	24E	11	44	373
Joy #66	22S	24E	11	44	374
Joy #67	22S	24E	11	44	374
Joy #68	22S	24E	11	44	375
Joy #69	22S	24E	11	44	375
Joy #70	22S	24E	11	44	376
Joy #71	22S	24E	11	44	376
Joy #72	22S	24E	11	44	377
Joy #73	22S	24E	11	44	377
Joy #74	22S	24E	11	44	378
Joy #75	22S	24E	11	44	378
Joy #76	22S	24E	11	44	379
Joy #77	22S	24E	11	44	379
Joy #78	22S	24E	11	44	380
Joy #79	22S	24E	11 & 12	44	380
Joy #80	22S	24E	11 & 12	44	381
Joy #81	22S	24E	12	44	381
Joy #82	22S	24E	12	44	382
Joy #83	22S	24E	12	44	382
Joy #84	22S	24E	12	44	383
Joy #85	22S	24E	9	44	383
Joy #86	22S	24E	9	44	384
Joy #87	22S	24E	9	44	384
Joy #88	22S	24E	9	44	385
Joy #89	22S	24E	9 & 10	44	385
Joy #90	22S	24E	9 & 10	44	386
Joy #91	22S	24E	10	44	386
Joy #92	22S	24E	10	44	387
Joy #93	22S	24E	10	44	387
Joy #94	22S	24E	10	44	388
Joy #95	22S	24E	10	44	388
Joy #96	22S	24E	10	44	389
Joy #97	22S	24E	10	44	389
Joy #98	22S	24E	10	44	390
Joy #99	22S	24E	10	44	390
Joy #100	22S	24E	10	44	391

Claim Name	Township	Range	Section	Book #	Page #
Joy #101	22S	24E	10	44	391
Joy #102	22S	24E	10	44	392
Joy #103	22S	24E	10	44	392
Joy #104	22S	24E	10	44	393
Joy #105	22S	24E	10 & 11	44	393
Joy #106	22S	24E	10 & 11	44	394
Joy #107	22S	24E	11	44	394
Joy #108	22S	24E	11	44	395
Joy #109	22S	24E	11	44	395
Joy #110	22S	24E	11	44	396
Joy #111	22S	24E	11	44	396
Joy #112	22S	24E	11	44	397
Joy #113	22S	24E	11	44	397
Joy #114	22S	24E	11	44	398
Joy #115	22S	24E	11	44	398
Joy #116	22S	24E	11	44	399
Joy #117	22S	24E	11	44	399
Joy #118	22S	24E	11	44	400
Joy #119	22S	24E	11	44	400
Joy #120	22S	24E	11	44	401
Joy #121	22S	24E	11	44	401
Joy Rotate #121	22S	24E	11	55	554
Joy #122	22S	24E	11	44	402
Joy #123	22S	24E	11 & 12	44	402
Joy Rotate #123	22S	24E	11 & 12	55	554
Joy #124	22S	24E	11 & 12	44	403
Joy #125	22S	24E	12	44	403
Joy Rotate #125	22S	24E	12	55	555
Joy #126	22S	24E	12	44	404
Joy #127	22S	24E	12	44	404
Joy Rotate #127	22S	24E	12	55	555
Joy #128	22S	24E	12	44	405
Joy #129	22S	24E	3	44	405
Joy #130	22S	24E	3	44	406
Joy #131	22S	24E	3	44	406
Joy #132	22S	24E	3	44	407
Joy #133	22S	24E	3	44	407
Joy #134	22S	24E	3	44	408
Joy #135	22S	24E	3	44	408
Joy #136	22S	24E	3	44	409
Joy #137	22S	24E	3	44	409
Joy #138	22S	24E	3	44	410
Joy #139	22S	24E	3	44	410
Joy #140	22S	24E	3	44	411
Joy #141	22S	24E	3	44	411
Joy #142	22S	24E	3	44	412
Joy #143	22S	24E	3 & 4	44	412
Joy #144	22S	24E	3 & 4	44	413
Joy #145	22S	24E	3	44	413
Joy #146	22S	24E	3	44	414
Joy #147	22S	24E	3	44	414
Joy #148	22S	24E	3	44	415
Joy #149	22S	24E	3	44	415
Joy #150	22S	24E	3	44	416

Claim Name	Township	Range	Section	Book #	Page #
Joy #151	22S	24E	3	44	416
Joy #152	22S	24E	3	44	417
Joy #153	22S	24E	3	44	417
Joy #154	22S	24E	3	44	418
Joy #155	22S	24E	3	44	418
Joy #156	22S	24E	3	44	419
Joy #157	22S	24E	3	44	419
Joy #158	22S	24E	3	44	420
Joy #159	22S	24E	3	44	420
Joy Rotate #159	22S	24E	3	49	494
Joy #160	22S	24E	3	44	421
Joy #161	22S	24E	3	44	421
Joy Rotate #161	22S	24E	3	49	494
Joy #162	22S	24E	3	44	422
Joy #163	21S	24E	34	44	422
Joy #164	21S	24E	34	44	423
Joy #165	21S	24E	34	44	423
Joy #166	21S	24E	34	44	424
Joy #167	21S	24E	34	44	424
Joy #168	21S	24E	34	44	425
Joy #169	21S	24E	34	44	425
Joy #170	21S	24E	34	44	426
Joy #171	21S	24E	34	44	426
Joy #172	21S	24E	34	44	427
Joy #173	21S	24E	34	44	427
Joy #174	21S	24E	34	44	428
Joy #175	21S	24E	34	44	428
Joy #176	21S	24E	34	44	429
Joy #177	21S	24E	35	44	429
Joy #178	21S	24E	35	44	430
Joy #179	21S	24E	35	44	430
Joy #180	21S	24E	35	44	431
Joy #181	21S	24E	35	44	431
Joy #182	21S	24E	35	44	432
Joy #183	21S	24E	35	44	432
Joy #184	21S	24E	35	44	433
Joy #185	21S	24E	34	44	433
Joy #186	21S	24E	34	44	434
Joy #187	21S	24E	35	44	434
Joy #188	21S	24#	34	44	435
Joy #189	21S	24E	35	44	435
Joy #190	21S	24E	34	44	436
Joy #191	21S	24E	27 & 34	44	436
Joy #192	21S	24E	34	44	437
Joy #193	21S	24E	27 & 34	44	437
Joy #194	21S	24E	34 & 35	44	438
Joy #195	21S	24E	27 & 34	44	438
Joy #196	21S	24E	35	44	439
Joy #197	21S	24#	28	44	439
Joy #198	21S	24E	35	44	440
Joy #199	21S	24E	28	44	440
Joy #200	21S	24E	35	44	441

Claim Name	Township	Range	Section	Book #	Page #
Joy #201	21S	24E	28	44	441
Joy #202	21S	24E	35	44	442
Joy #203	21S	24E	28	44	442
Joy #204	21S	24E	28	44	443
Joy #205	21S	24E	28	44	443
Joy #206	21S	24E	27	44	444
Joy #207	21S	24E	28	44	444
Joy #208	21S	24E	27	44	445
Joy #209	21S	24E	28	44	445
Joy #210	21S	24E	27	44	446
Joy #211	21S	24E	27	44	446
Joy #212	21S	24E	27	44	447
Joy #213	21S	24E	27	44	447
Joy #214	21S	24E	27	44	448
Joy #215	21S	24E	27	44	448
Joy #216	21S	24E	27	44	449
Joy #217	21S	24E	27	44	449
Joy #218	21S	24E	27	44	450
Joy #219	21S	24E	28	44	450
Joy #220	21S	24E	21 & 28	44	451
Joy #221	21S	24E	28	44	451
Joy #222	21S	24E	21 & 28	44	452
Joy #223	21S	24E	28	44	452
Joy #224	21S	24E	21 & 28	44	453
Joy #225	21S	24E	28	44	453
Joy #226	21S	24E	21 & 28	44	454
Joy #227	21S	24E	28	44	454
Joy #228	21S	24E	21 & 28	44	455
Joy #229	21S	24E	21 & 28	44	455
Joy #230	21S	24E	21 & 28	44	456
Joy #231	21S	24E	28	44	456
Joy #232	21S	24E	21 & 28	44	457
Joy #233	21S	24E	27	44	457
Joy #234	21S	24E	22 & 27	44	458
Joy #235	21S	24E	27	44	458
Joy #236	21S	24E	22 & 27	44	459
Joy #237	21S	24E	27	44	459
Joy #238	21S	24E	22 & 27	44	460
Joy #239	21S	24E	27	44	460
Joy #240	21S	24E	21	44	461
Joy #241	21S	24E	21	44	461
Joy #242	21S	24E	22	44	462
Joy #243	21S	24E	22	44	462
Joy #244	21S	24E	22	44	463
Joy #245	21S	24E	22	44	463
Joy #246	21S	24E	21	44	464
Joy #247	21S	24E	21	44	464
Joy #248	21S	24E	15	44	465
Joy #249	21S	24E	21	44	465
Joy #250	21S	24E	15	44	466

Claim Name	Township	Range	Section	Book #	Page #
Joy #251	21S	24E	21	44	466
Joy #252	21S	24E	15	44	467
Joy #253	21S	24E	21	44	467
Joy #254	21S	24E	15	44	468
Joy #255	21S	24E	21	44	468
Joy #256	21S	24E	15	44	469
Joy #257	21S	24E	15 & 22	44	469
Joy #258	21S	24E	15	44	470
Joy #259	21S	24E	15 & 22	44	470
Joy #260	21S	24E	15	44	471
Joy #261	21S	24E	15 & 22	44	471
Joy #262	21S	24E	15	44	472
Joy #263	21S	24E	15	44	472
Joy #264	21S	24E	15	44	473
Joy #265	21S	24E	15	44	473
Joy #266	21S	24E	15	44	474
Joy #267	21S	24E	15	44	474
Joy #268	21S	24E	15	44	475
Joy #269	21S	24E	15	44	475
Joy #270	21S	24E	15	44	476
Joy #271	21S	24E	15 & 22	44	476
Joy #272	21S	24E	22	44	477
Joy #273	21S	24E	22	44	477
Joy #274	22S	24E	13	44	478
Joy #275	22S	24E	13 & 24	44	478
Joy #276	22S	24E	13	44	479
Joy #277	22S	24E	13,14,23,24	44	479
Joy #278	22S	24E	14	44	480
Joy #279	22S	24E	14 & 23	44	480
Joy #280	22S	24E	14	44	481
Joy #281	22S	24E	14 & 23	44	481
Joy #282	22S	24E	14	14	482
Joy #283	22S	24E	14 & 23	44	482
Joy E284	22S	24E	14	44	483
Joy #285	22S	24E	14 & 23	44	483
Joy #286	22S	24E	14	44	484
Joy #287	22S	24E	14 & 23	44	484
Joy #288	22S	24E	14	44	485
Joy #289	22S	24E	14 & 23	44	485
Joy #290	22S	24E	14	44	486
Joy #291	22S	24E	14 & 23	44	486
Joy #292	22S	24E	14	44	487
Joy #293	22S	24E	14 & 23	44	487
Joy #294	22S	24E	14	44	488
Joy #295	22S	24E	14 & 23	44	488
Joy #296	22S	24E	14 & 15	44	489
Joy #297	22S	24E	14,15,22,23	44	489
Joy #298	22S	24E	15	44	490
Joy #299	22S	24E	15 & 22	44	490
Joy #300	22S	24E	15	44	491

Claim Name	Township	Range	Section	Book #	Page #
Joy #301	22S	24E	15 & 22	44	491
Joy #302	22S	24E	15	44	496
Joy #303	22S	24E	15 & 22	44	492
Joy #304	22S	24E	15	44	493
Joy #305	22S	24E	15 & 22	44	493
Joy #306	22S	24E	15	44	494
Joy #307	22S	24E	15 & 22	44	494
Joy #308	22S	24E	15	44	495
Joy #309	22S	24E	15 & 22	44	495
Joy #310	22S	24E	15	44	496
Joy #311	22S	24E	15 & 22	44	496
Joy #312	22S	24E	3	49	508
Joy #313	22S	24E	5	49	508
Joy #314	22S	24E	10	49	509
Joy #315	22S	24E	3 & 10	50	20
Joy #316	22S	24E	9	49	509
Joy #317	22S	24E	9	49	510
Joy #318	22S	24E	11	49	510
Joy #319	22S	24E	3 & 10	50	21
Joy #320	22S	24E	15	50	21
Joy #321	22S	24E	15	49	511
Joy #322	22S	24E	10	49	511
Joy #323	22S	24E	11	49	512
Joy #324	22S	24E	13	55	556
Joy #325	22S	24E	13 & 14	55	556
Joy #326	22S	24E	14	55	557
Joy #327	22S	24E	14	55	557
Joy #328	22S	24E	14 & 15	55	558
Joy #329	21S	24E	34	49	512
Joy #330	21S	24E	34	49	513
Joy #331	21S	24E	34	49	513
Joy #332	21S	24E	34	49	514
Joy #333	21S	24E	34	49	514
Joy #334	22S	24E	15	55	558
Joy #335	21S	24E	27 & 34	49	515
Joy #336	22S	24E	15	55	559
Joy #337	21S	24E	34	49	515
Joy #338	22S	24E	15	55	559
Joy #339	21S	24E	27 & 34	49	516
Joy #340	22S	24E	15	55	560
Joy #341	21S	24E	34	49	516
Joy #342	22S	24E	15	55	560
Joy #343	22S	24E	15	55	561
Joy #345	21S	24E	34	49	517
Joy #346	22S	24E	13 & 14	55	561
Joy #347	21S	24E	27 & 34	49	518
Joy #348	22S	24E	14	55	567
Joy #349	22S	24E	14	55	562
Joy #350	22S	24E	14 & 15	55	563

Claim Name	Township	Range	Section	Book #	Page #
Joy #351	22S	24E	11 & 12	55	563
Joy #352	22S	24E	11	55	564
Joy #353	22S	24E	11	55	564
Joy #354	21S	24E	34	55	565
Joy #355	21S	24E	34	55	565
Joy #356	21S	24E	34	55	566
Joy #357	21S	24E	34	55	566
Joy #358	21S	24E	35 & 34	55	567
Joy #359	21S	24E	35	55	567
Joy #360	21S	24E	35	55	568

January 4, 1955

Mr. W. Russell Pryor, President
Strategic Minerals, Inc. of Texas
P.O. Box 14396
Houston 21, Texas

Dear Sir:

GEOLOGIC REPORT, JOY GROUP
Cisco, Grand Co., Utah
Salt Wash

This geological report on the Joy group of claims replaces the preliminary report of November 23, 1954, revised December 7, 1954. Although rather cursory, studies to date justify the conclusions and recommendations of this report. However, detailed geologic mapping should be completed in the vicinity of postulated ore targets before drilling is started to allow better calibration of drill-hole positions.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The Joy property has good ore possibilities, but it is one of relatively high risk. It is recommended that $44,600. be invested as a first-phase testing of 23 selected ore targets. However, such testing should be undertaken by high-risk capital. If ore is intersected by one drill hole in this preliminary testing, then the risk will be considerably reduced, making it advisable to proceed to following phases.

MINERALIZATION

Fourteen areas of anomalous radioactivity were found in the area by airborne radiometric survey and subsequent ground checking. These are relatively weak, varying from 2 to 10 times background on a scintillation counter at ground level. One outcrop approaching ore grade was observed on Joy #120 in the NE quarter of Section 11, T22S, R24E (Figures 1 and 2).

Since the immediate area has no production history, nearby producing areas must be considered for comparative purposes, i.e. the Yellow Cat area which lies 13 miles to the southwest and the Polar Mesa area which lies 19 miles to the southeast. Considering the quality of geologically derived orebodies in these two areas, expectancy on size and grade in the Joy area would be orebodies of 2000 tons each, containing 0.30% U_3O_8 and 1.50% V_2O_5.

Ore in the Joy area would be typical of Salt Wash carnotite-vanadium ores.

GEOLOGIC SETTING

The Joy group lies on the northwest end on the Uncompahgre uplift which is an ancient positive area. All formations below the upper Chinle (Triassic) pinch out on approaching the uplift, and the upper Chinle rests on Precambrian rocks. The Joy group covers the Sand Flat graben and its immediate flanks. This graben is bounded on the north by the Courage and Dry Gulch faults and on the south, by the Gamma and Decision faults (Figure 2).

Ore is most likely to be found in the "Lower sand" of the Salt Wash member of the Morrison formation. The "Lower sand" is about 55 feet in thickness and it lies 230 feet below the top of the Salt Wash. Also the "Middle" and "Upper" sands, which are thinner and which lie stratigraphically above the "Lower sand", are favorable ore horizons.

Thicknesses on a stratigraphic section which was measured in the northern part of the Joy group are given below.

Formation or Member	Thickness, Feet
Dakota (Cretaceous)	45
Burro Canyon (Cretaceous)	48
Brushy Basin (Jurassic)	543
Salt Wash (Jurassic)	354

CONTROLS AND OTHER GUIDES

Sandy facies in the Salt Wash with at least one relatively short lateral dimension are common on the property. Such sedimentary structures, which are typical of fluvial sediments, are considered as favorable to ore deposition.

Tectonic structure is particularly favorable on the Joy group. Degree of openness of ground is an important control of ore deposition. Faults and other fractures are abundant in the area (Figure 2).

Yellow-brown limonite stain is observed as scattered patches in the area. This staining and anomalous radioactivity are applicable ore guides.

TRENDS AND TARGETS

It is assumed that the sedimentary structure and lithology is favorable at any point on the claim group in at least one of the favorable sand horizons

(Upper, Middle, and Lower). Ore targets are selected near points which are most likely to display the maximum degree of openness of ground, i.e. near fracture intersections or near changes in spatial attitude of fracture planes.

Generally, observed anomalous radioactivity is very near fractures or on outcrops of favorable Salt Wash sands extending from nearby fractured areas.

Loci at which orebodies are likely to be found are considered to be along the major faults which bound the Sand Flat graben on the north and south. Twenty-three targets are selected along these faults (Figure 2). It is considered possible that three orebodies averaging 2000 tons each will be found at 15 of the 23 selected targets. These orebodies are considered to contain 0.30% U_3O_8 and 1.50% V_2O_5. Risk involved in allowing the possibility of 45 orebodies containing a total of 90,000 tons of ore is discussed at the end of this report.

For the purposes of discussion, these 2000 ton orebodies are assumed to be horizontally tabular and 5 feet in thickness. Lateral dimensions are assumed to be 20x520 feet, the long dimension being oriented west to northwest.

LAND STATUS

The Company holds mineral rights on approximately 6500 acres which comprise the Joy group. This includes some State leases as well as the lode mining claims (Figure 1). The land covered is within the Dewey reservoir site. It is very doubtful that a dam will ever be built in the area, and even if a decision to construct a dam were made today, at least 5 years of time would elapse before inundation, allowing ample time for extraction of any ore in the area.

The Joy group includes 360 claims which are named Joy #1-360, inclusive. Six of those have been changed to "Joy Rotate" claims bearing the same numbers as the "Joy" claims which they overlap. Claim-corner and discovery monuments, which total to over 1000, are mostly sturdy white-washed stone monuments averaging about 18 inches in height. The remainder are 4-inch posts over 5 feet in height. Land status in the area has been carefully checked by the writer. Mr. C. Jay Parkinson, our attorney in Salt Lake City, has reviewed and approved our claim-staking procedures.

ECONOMIC FACTORS

Drilling: Drilling depths to test the selected targets will average about 435 feet and vary from 320 feet in Section 28, T21S, R24E to 550 feet in Section 9, T22S, R24E (Figure 2). Total drilling costs per foot will be about $3.60 for diamond drilling and $1.50 - 1.75 for rotary drilling.

Roads: About 3 miles of access roads will be needed. For drilling roads, this would cost about $2000. To convert these to ore-haulage roads would cost an additional $6000.

Surface haulage: Ore could be moved by several routings, but it is assumed that it would be trucked an average of 7 miles to the rail siding at Cisco and then be moved 53 miles by rail to the Climax Uranium mill in Grand Junction. Considering Government haulage allowance, haulage costs would be a maximum of $0.35 per ton.

All ore targets shown on Figure 2 are west of the Colorado River. Should ore be found east of the river, it would be moved across the river by cable tram, adding about $0.50 per ton to surface haulage costs.

Water, power, labor: Adequate water is available from the Colorado River which crosses the property. This fact may create some mine drainage problems, particularly in the target areas in Section 11, T22S, R24E. Power would have to be developed on the property -- probably diesel power. The nearest sizable labor supply is Fruita, Colorado, a distance of about 47 miles. Steady mining operations would demand the construction of a bunk house on the property.

Development: It is assumed that one 440-foot shaft and 1000 feet of lateral openings (cross-cuts) will serve to extract each 10,000 tons of ore. Thus, shaft-sinking per ton would be 0.044 feet @ $150. or $6.60. Cross-cutting per ton would be 0.10 feet @ $25. or $2.50. Also, an underground development drilling cost of $1.50 per ton should be allowed. Thus total development costs are estimated at $10.60 per ton.

Government Bonus: It is safe to assume that this property could be certified for A.E.C. bonus in at least three divisions since discoveries would be widely separated. Thus, it is assumed that the full initial production bonus of $35,000 would be awarded three times, resulting in a total of $105,000. in bonus payments for the Joy property.

RECOMMENDATIONS

1. Prepare detailed geologic maps in the vicinity of target areas. Cost: $600; time: 2 man-weeks.

2. Prepare drilling access roads. Cost: $8000. Time: 2 weeks.

3. Phase #1 drilling: Drill one diamond drill hole on each of the 25 selected targets (Figure 2). This will require about 10,000 feet of drilling @ $3.60. Cost: $36,000. Time: 5 months.

4. Phase #2 drilling: If at least one ore hole results from Phase #1 drilling, then it would be advisable to proceed to Phase #2. Drill two rotary holes at 100-foot spacing on each of the 25 targets. This will require about 20,000 feet of drilling @ $1.75. Cost: $35,000. Time: 5 months.

5. Phase #3 drilling: Drill 5 additional rotary holes at each target on which ore has been intersected by previous drilling. Assumption: Ore will have been intersected at 15 of the 25 targets. This would require 25,000 feet of drilling @ $1.50. Cost: $37,500. Time: 4 months.

6. Proceed to mining phase to extract discovered orebodies and select other targets for testing which will now be apparent.

OUTCOME

Calculations on predicted outcome are based on an assumed production rate of 2000 tons per month and all the other factors discussed above under "Targets and trends", "Economic factors", and "Recommendations".

Costs:

Plant and Other Initial Costs	per ton
Access roads - - - - - - - -	0.15
Surface plant - - - - - - -	0.60
Initial drilling - - - - - -	1.25
Total -	$ 2.00

Operating Extraction Costs	
Development - - - - - - - - - -	10.60
Ore-breaking - - - - - - - - -	3.50
Underground haulage - - - - -	0.60
Hoisting - - - - - - - - - - -	0.80
Ventilation - - - - - - - - - -	0.25
Maintenance - - - - - - - - - -	1.70
Waste disposal - - - - - - -	0.10
Drainage - - - - - - - - - - -	0.10
Surface haulage - - - - - - -	0.35
Indirect costs - - - - - - -	3.00
Total -	$ 21.00
Total Cost Per Ton - - - - -	$ 23.00

Income:

Initial production bonus* - -	1.17
Uranium oxide in 0.30% ore -	25.50
Vanadium oxide in 1.50% ore -	9.30
Total Income Per Ton - - - -	$ 35.97

Outcome:

	Per ton
Total income - - - - - - - - - -	$ 35.97
Total costs - - - - - - - - - -	23.00
EXPECTED OUTCOME PER TON - - -	$ 12.97

The initial production bonus of $1.17* per ton, as given in the above table, is based on the assumption that a total of 90,000 tons of ore will be extracted from the property. If the property produces twice this much, this figure would be only $0.50 per ton, reducing the expected outcome to $12.39.

Costs as given in the table include all direct and indirect costs chargeable to the mine. Corporate overhead, considered as minor, is excluded.

RISK

The Joy property is one of relatively high risk, and its testing should be undertaken by capital which can afford that risk.

If Phase #1 drilling results in even one ore hole, the risk would be considerably reduced. The investment to accomplish Phase #1 drilling is considered as the "exploration investment". In the consideration of risk, all subsequent expenditures may logically be considered as "development". The "exploration investment" would be $44,600. (through step#3 of "Recommendations").

If 90,00o tons of ore were discovered as assumed above in the discussion of "Trends and targets", the property would have an estimated value of 90,000 x 12.97 or $1,167,500. This would be a pay-off on the exploration investment of about 26:1. In our opinion the odds for such a pay-off are 1:10. The best possible reward is considered as about 2½ million, a pay-off of about 50:1. The odds for such a pay-off are considered as 1:15.

Very truly yours,

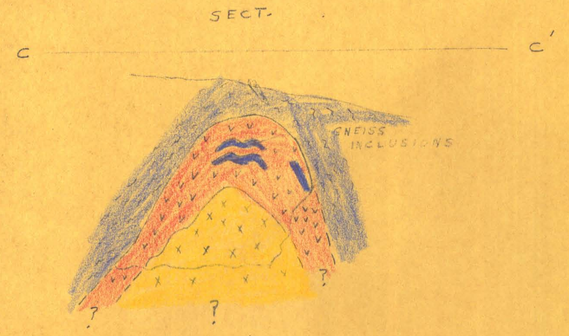
Thomas W. Mitcham

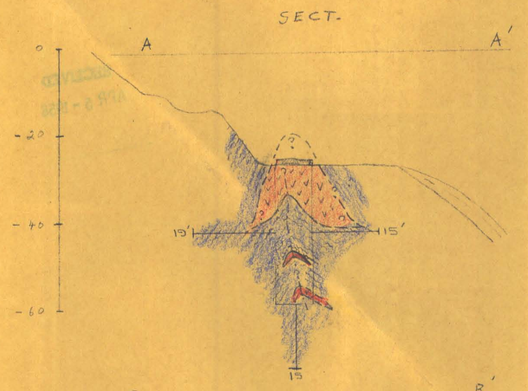
Thomas W. Mitcham

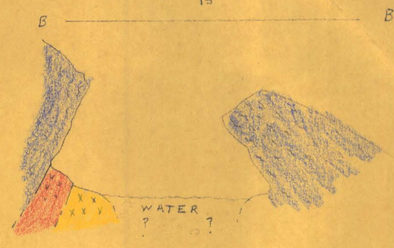
Figures:

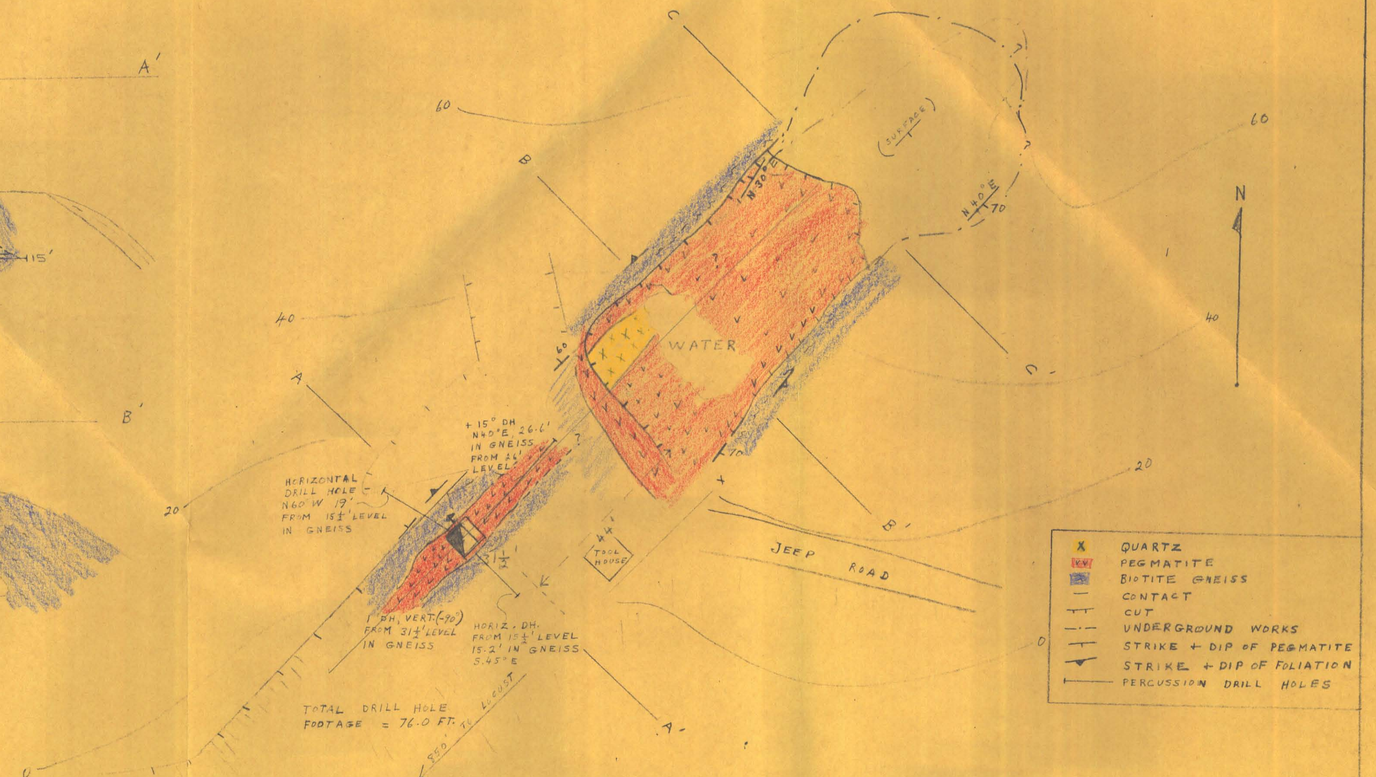
1. Claim map, Joy group
2. Geologic map, Joy group

TWM/lh









SKETCH OF THE
BRANCH (ZACK YOUNG) MINE
DMEA - 3743, IDM - E 888
MITCHELL CO., N.C.

0 5 10 15 20 40 60 FEET

HORIZANTAL AND VERTICAL SCALE

FINAL INSPECTION FEB. 1, 1956

MARCH 23, 1956 TAYLOR, A.R.

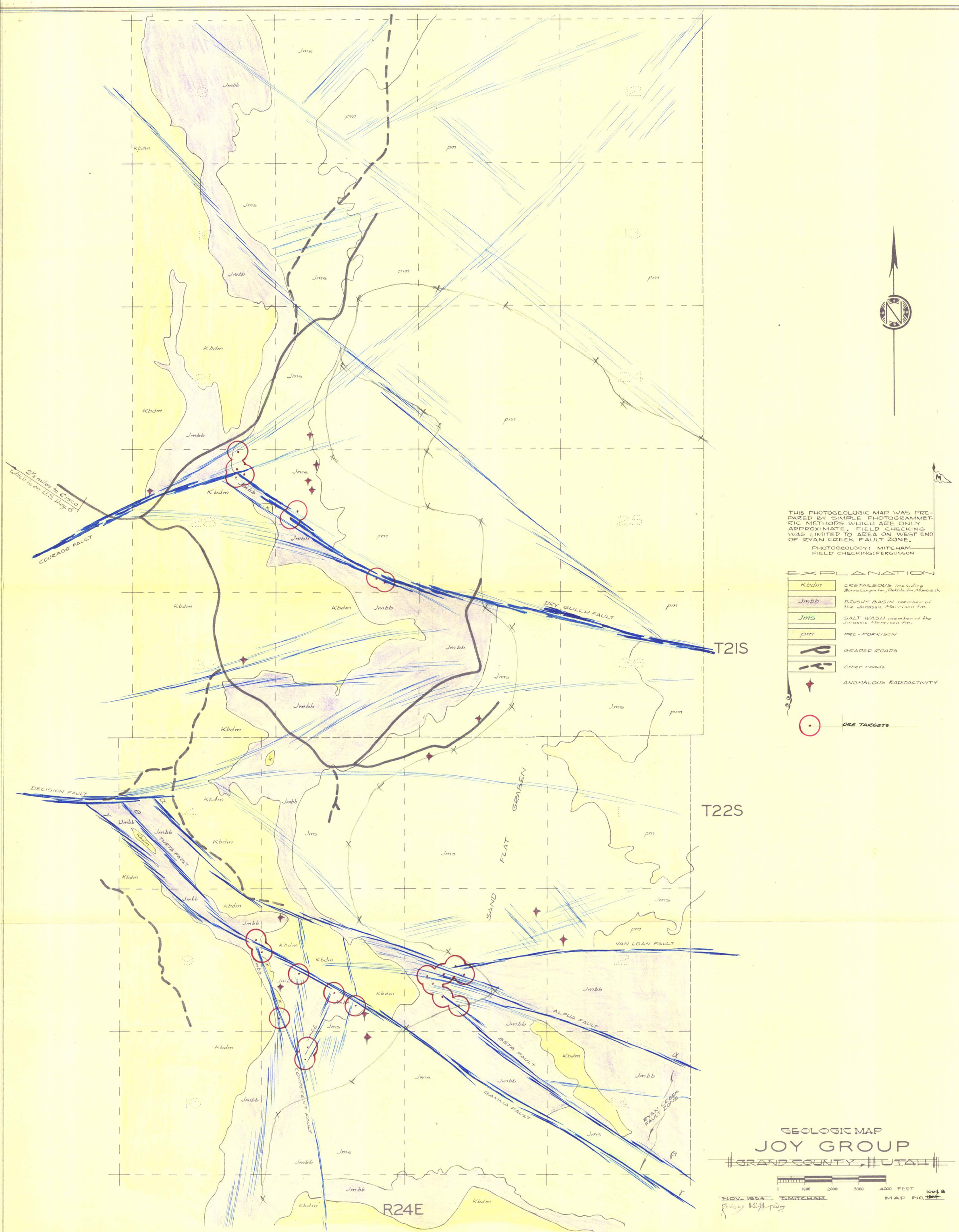

Jms
Jmbb
pm
Kbdm
2½ miles to Cisco which is on U.S. Hwy. 6
COURAGE FAULT
DRY GULCH FAULT
T21S
DECISION FAULT
THETA FAULT
GRABEN
SAND FLAT
T22S
VAN LOAN FAULT
ALPHA FAULT
BETA FAULT
GAMMA FAULT
COMPETENT FAULT
RYAN CREEK FAULT ZONE
R24E
THIS PHOTOGEOLOGIC MAP WAS PREPARED BY SIMPLE PHOTOGRAMMETRIC METHODS WHICH ARE ONLY APPROXIMATE. FIELD CHECKING WAS LIMITED TO AREA ON WEST END OF RYAN CREEK FAULT ZONE.
PHOTOGEOLOGY: MITCHAM
FIELD CHECKING: FERGUSSON
EXPLANATION
Kbdm CRETACEOUS including Burro Canyon fm., Dakota fm., Mancos sh.
Jmbb BRUSHY BASIN member of the Jurassic Morrison fm.
Jms SALT WASH member of the Jurassic Morrison fm.
pm PRE-MORRISON
GRADED ROADS
Other roads
ANOMALOUS RADIOACTIVITY
ORE TARGETS
GEOLOGIC MAP
JOY GROUP
GRAND COUNTY, UTAH
0 1000 2000 3000 4000 FEET
NOV. 1954 T. MITCHAM
MAP NO. 1004 B
Revised 11-21-54 T.W.M.

Figure #2