

Mineral Appraisal of Lands in the Blanding Area  
San Juan County, Utah

by R. E. Cohenour

This is an appraisal of the mineral potential of lands in the Blanding area of southeastern Utah which was requested by the State Land Board in June 1963; the lands are plotted on the attached prints:

1. Index Map - B2b-54
2. B2b-40      September 1963      Blanding Area      T. 35 S., R. 22 E.
3. B2b-41      "      "      "      "      T. 35 S., R. 23 E.
4. B2b-42      "      "      "      "      T. 36 S., R. 22 E.
5. B2b-43      "      "      "      "      T. 36 S., R. 23 E.
6. B2b-44      "      "      "      "      T. 37 S., R. 22 E.
7. B2b-45      "      "      "      "      T. 37 S., R. 23 E.

Recommendations: None of the lands can be specifically recommended for their mineral potential. This is not to say that the lands are condemned as worthless. It does say that the drilling density of one oil well (dry hole) per 10,000 acres does not contribute enough basic data to properly appraise the oil and gas potential and that there are better areas within the Plateau province of Utah, specifically San Juan and Grand Counties, which have a better oil and gas potential that can be substantiated by regional geology and petroliferous trends. The uranium potential is poor since these lands are in an area which was severely prospected in the 1950's. Expenditure of 'mineral base' lieu lands is not warranted for the acquisiton of these lands.

It is recommended that the surface value of these lands be appraised for grazing and agriculture. Water is scarce and groundwater is lacking. Most all currently recognized water sources are developed.

Oil and Gas Possibilities: A total of 14 oil wells have been drilled in the 6 townships of the evaluated area. Three of the wells--Gulf Oil in Sec. 25, T. 37 S., R. 23 E., Standard of California in Sec. 33, T. 35 S., R. 22 E., and Century Drilling Co. in Sec. 18, T. 36 S., R. 22 E. encountered shows of oil and gas. No oil or gas was reported from the remaining 11 wells. The well density is about one hole per 10,000 acres. All but one of the tests penetrated rocks of Pennsylvanian age (Aneth zone) which are considered the most likely to be productive.

Favorable surface structure is lacking in the Blanding area, but the petroleum resources of the Aneth district some 30 miles southerly occur in or near petroleum strata. Reef production does not depend on surface expression of structures and since the complete subsurface distribution of these paleoreefs is not yet known, it would be poor judgement to condemn the Blanding area before sufficient holes have been drilled to the productive horizon.

Trends of oil occurrences cannot be reasonably projected into the area, but one must bear in mind that a hole density of 1 in 10,000 acres can hardly be expected to afford sufficient basic data for proper judgement of projection. The insufficient data at hand does indicate that the area has only fair oil possibilities and that specific targets are not present. There are many areas of better oil potential in eastern Utah wherein 'mineral base' ground could be more wisely expended.

Uranium Possibilities: The evaluated area is entirely underlain by the Morrison Formation which is one of the important uranium-bearing horizons of the Plateau. Portions of the Morrison Formation crop out throughout the area

and comprise about 40 per cent of the surface, the remaining 60 per cent of the surface contains Cretaceous rocks, the Burro Canyon and Dakota Formations which are uraniferous in other parts of the state.

The area was extensively explored and prospected during the uranium boom of the 1950's, but no commercial uranium mine has been developed in the Morrison strata which crop out in the area. These lands lie between two districts of uranium production. First, they are situated near the east margin of the Blanding mines area which is one of the oldest vanadium-uranium areas of the Colorado Plateau. Second, the upper reaches of Montezuma Creek to the east harbored small barely commercial uranium deposits that were ruined during the days when uranium was heavily subsidized. It seems probable that if commercial uranium deposits were present on these lands that are situated between two metalliferous areas, that some of them would have been detected. The area is not recommended for its uranium potential.

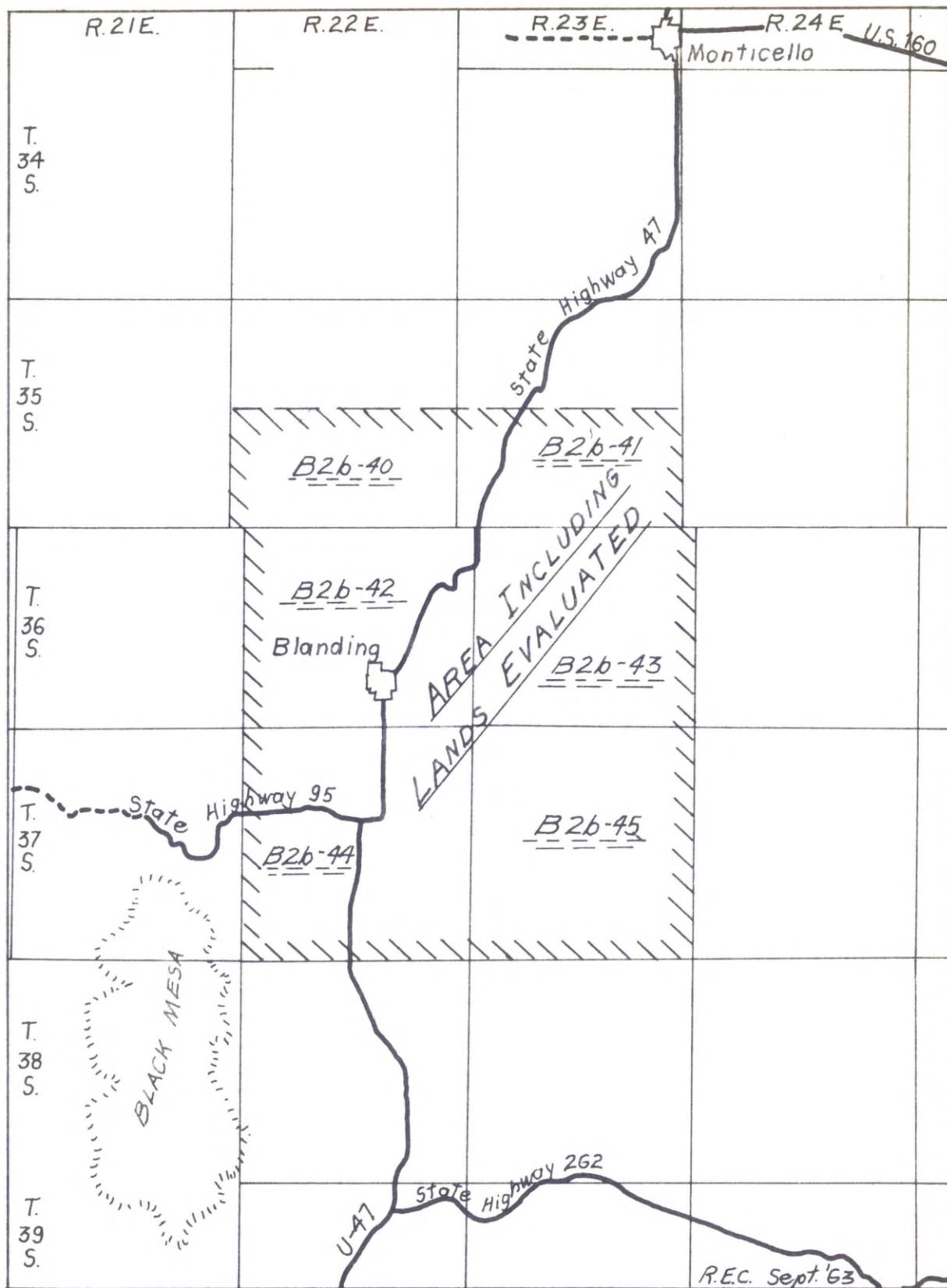
Valuation of Water Supply: The San Juan country is a semi-desert and only the higher mountain ranges and ridges are better watered than the surrounding terrain. The Abajo (Blue) Mountains at the north boundary of the evaluated land afford irrigation water to the town of Blanding in the heart of the area. The surface water resources of the area are, for the most part, completely developed and appropriated. Groundwater conditions are poor. Gregory (U.S. Geol. Survey Prof. Paper 188, "The San Juan Country") estimates that probably less than 5 per cent of the annual precipitation is absorbed by soil and rocks and of this amount most of it escapes evaporation before the next rain or snow. The area is one of too

much hard, tight rock and one of too little alluvium, alluvial fans and deep soil. Water possibilities are poor for agriculture but surface waters may be dammed and retained for a livestock industry that could subsist on natural forage.

Submitted October 1, 1963

A handwritten signature in cursive script, reading "Robert E. Cohenour", written in dark ink. The signature is fluid and stylized, with a long horizontal stroke at the end.

Robert E. Cohenour, Research Geologist  
Utah Geological Survey



INDEX MAP  
OF THE  
BLANDING AREA

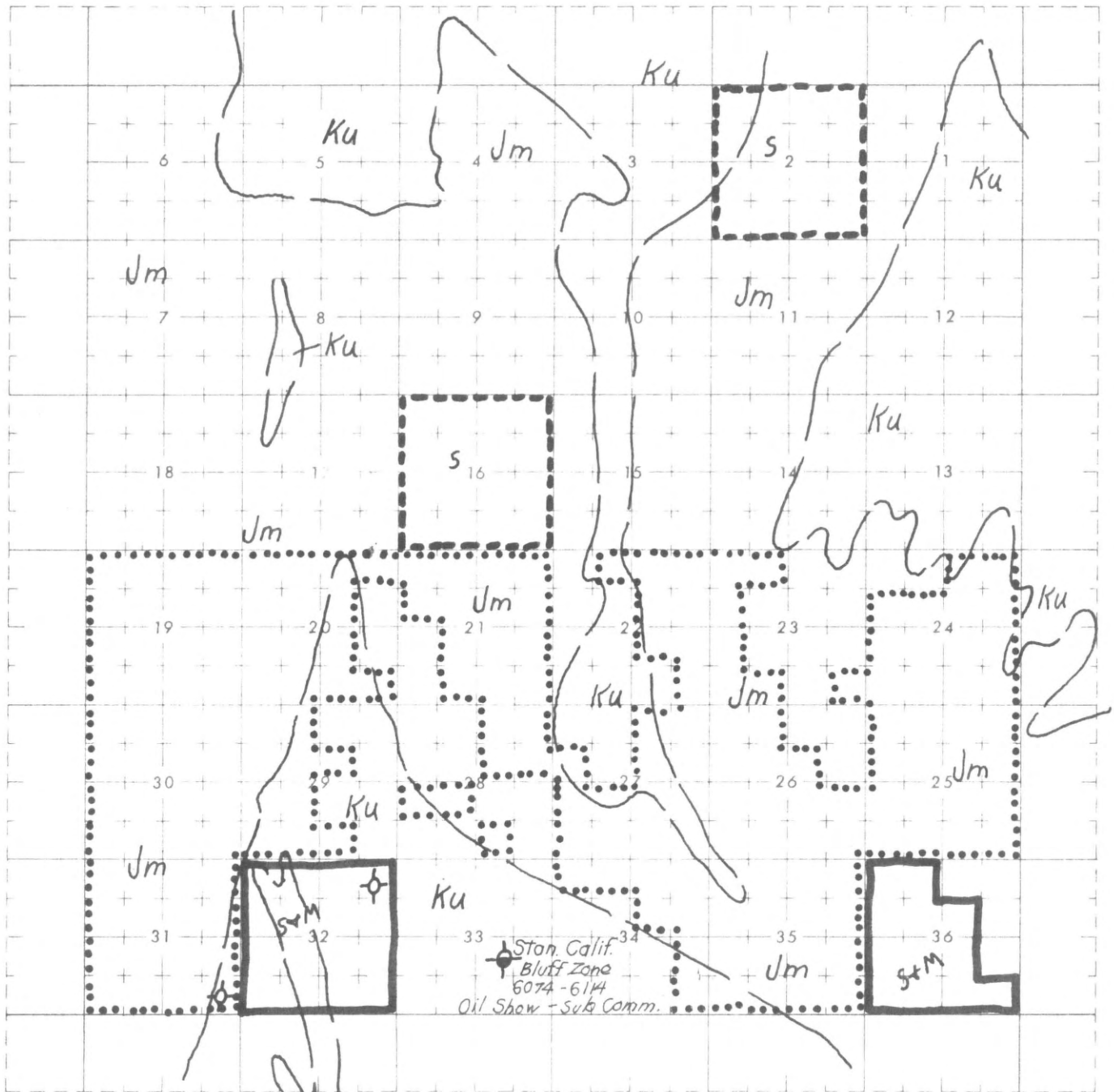
FILE B2b-54

RANGE 22 EAST

TOWNSHIP

35

S.



SALT LAKE MERIDIAN

SAN JUAN COUNTY

BLANDING AREA

STATUS PLAT (Approximate)



STATE LANDS *S-Surf. M-Mineral*



FEDERAL LANDS



PATENTED LANDS



*Mineral Appraisal  
Asked - 75/7 Acres*



*Jm Jurassic-Morrison fm*



*Ku Cretaceous*

R.E.C. Sept. '63  
FILE B2b-40

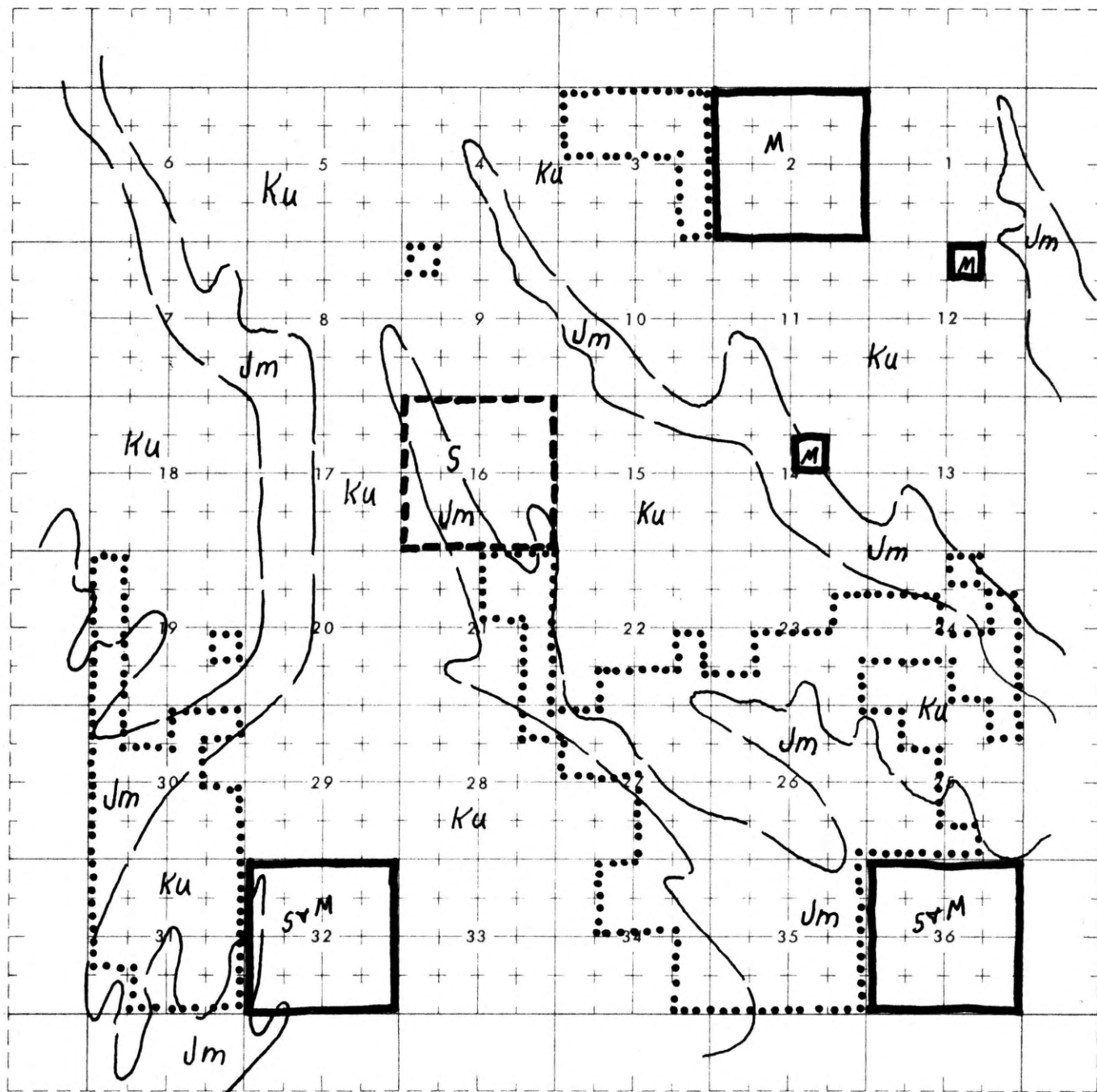
NOT RECOMMENDED FOR MINERAL

RANGE 23 EAST

TOWNSHIP

35

S.



SALT LAKE MERIDIAN

SAN JUAN COUNTY

BLANDING AREA

STATUS PLAT (Approximate)



STATE LANDS <sup>S-Surf.</sup> M-Mineral



FEDERAL LANDS



PATENTED LANDS



Mineral Appraisal  
Asked - 5403 Acres



Jm Jurassic-Morrison fm.

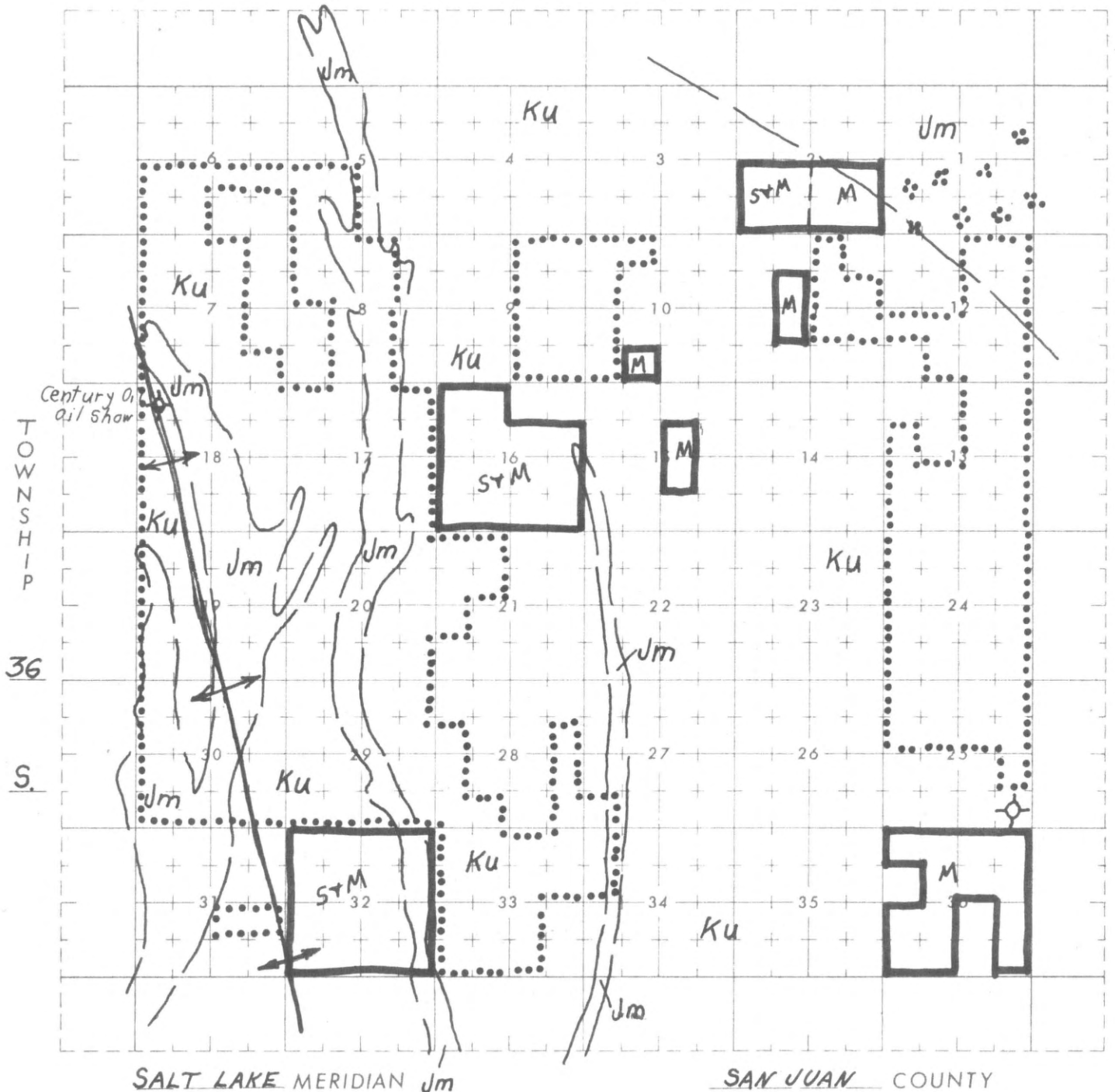


Ku Cretaceous

NOT RECOMMENDED FOR MINERAL

R.E.C. Sept. 63  
FILE B2b-41

RANGE 22 EAST



BLANDING

AREA

STATUS PLAT (Approximate)



STATE LANDS <sup>S-Surf.</sup> M.-Mineral



FEDERAL LANDS



PATENTED LANDS



Mineral Appraisal  
Asted - 9,333 Acres



Jm Jurassic-Morrison fm



Ku Cretaceous

NOT RECOMMENDED FOR MINERAL

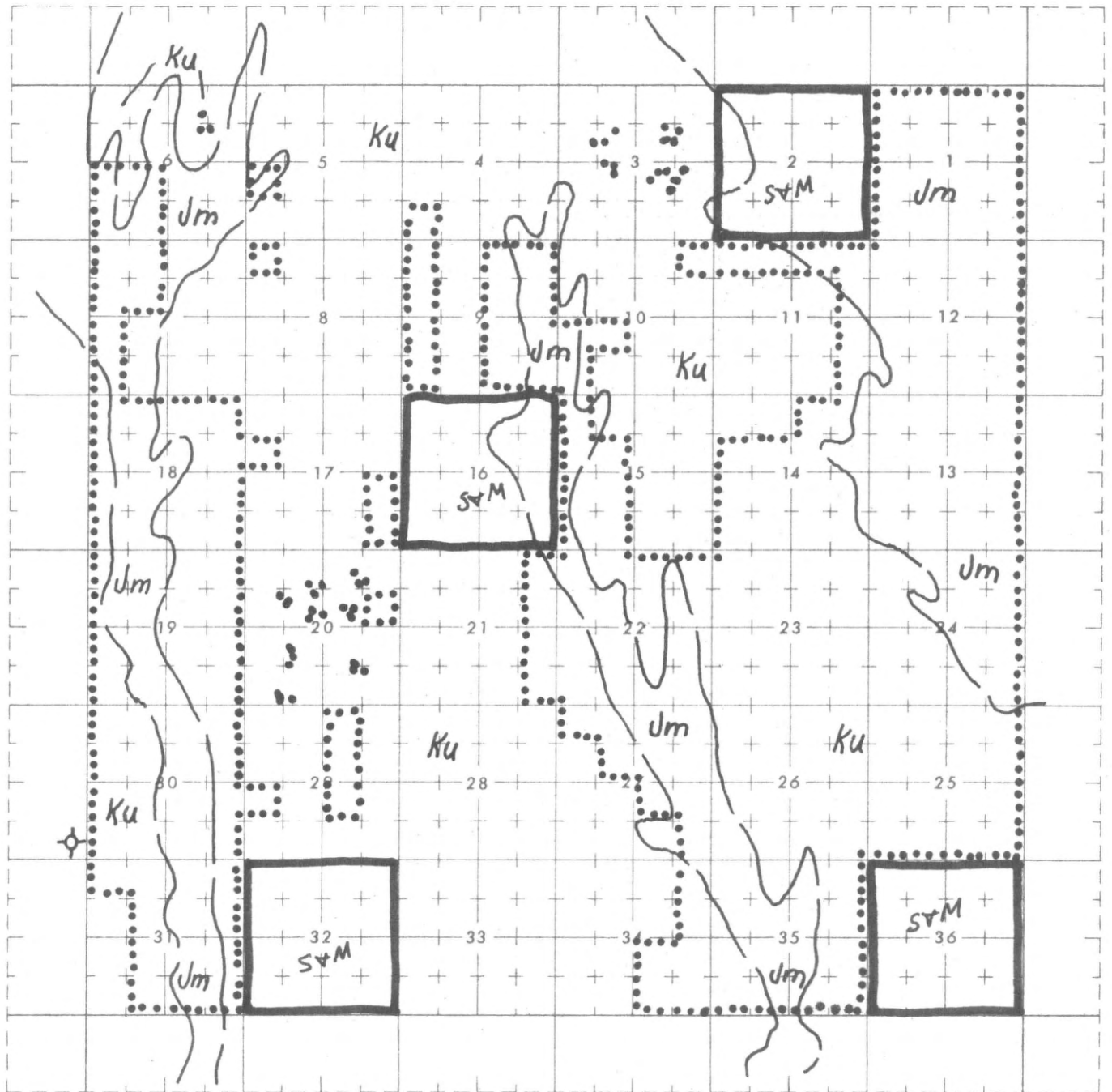
R.E.C. Sept. '63  
FILE B2b-42

RANGE 23 EAST

TOWNSHIP

36

S.



SALT LAKE MERIDIAN

SAN JUAN COUNTY

Blanding

AREA

STATUS PLAT (Approximate)



STATE LANDS S-surf  
M-Mineral



FEDERAL LANDS



PATENTED LANDS



Mineral Appraisal  
Asked; 11,660 Acres



Jm Jurassic-Morrison fm



Ku Cretaceous

NOT RECOMMENDED FOR MINERAL

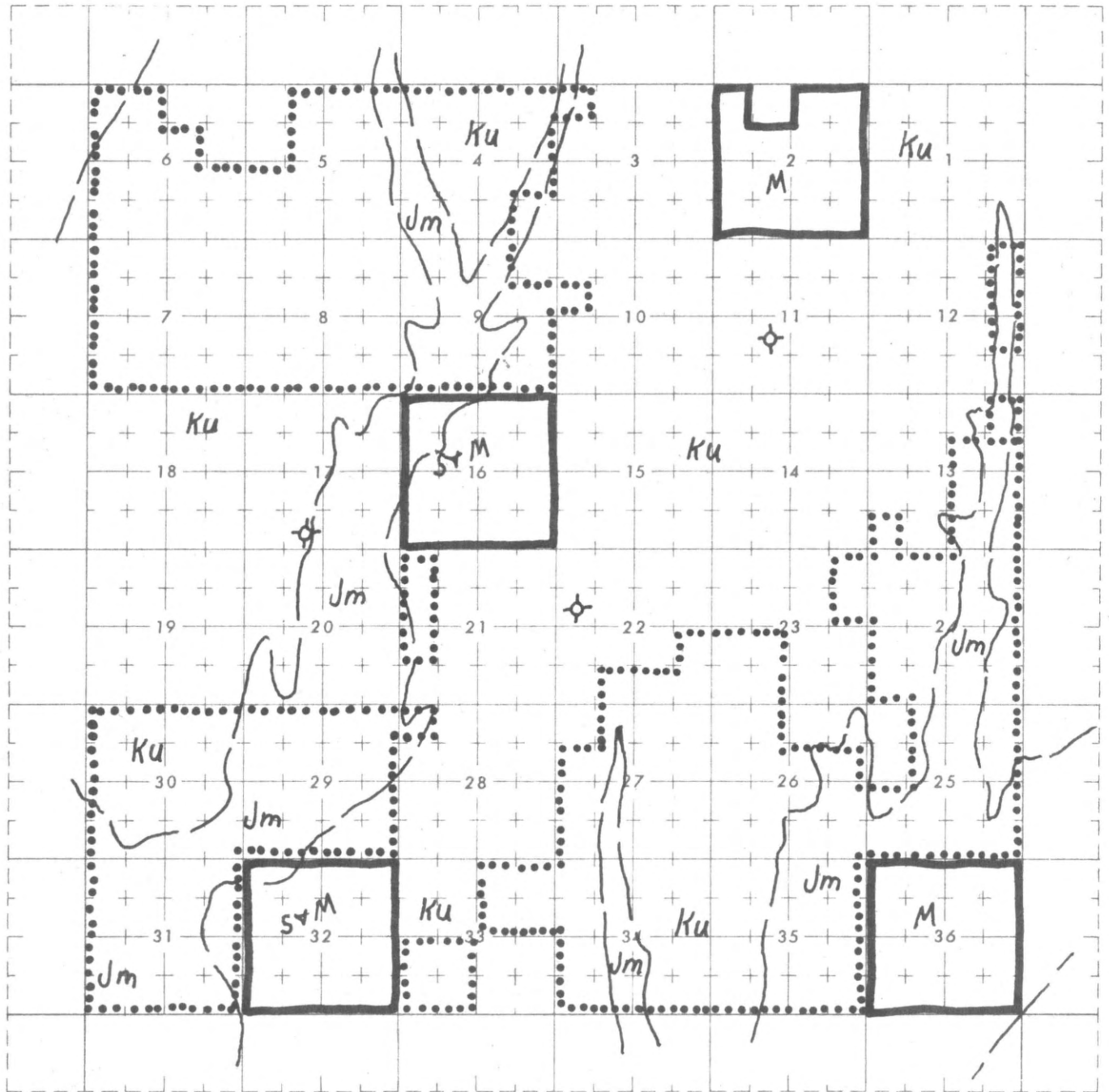
R.E.C. Sept. '63  
FILE B2b-43

RANGE 22 EAST

TOWNSHIP

37

S.



SALT LAKE MERIDIAN

SAN JUAN COUNTY

BLANDING AREA

STATUS PLAT (Approximate)



S - Surf.  
M - Mineral  
STATE LANDS



FEDERAL LANDS



PATENTED LANDS



Mineral appraisal  
Asked - 10,447 acres



Jm Jurassic-Morrison fm.



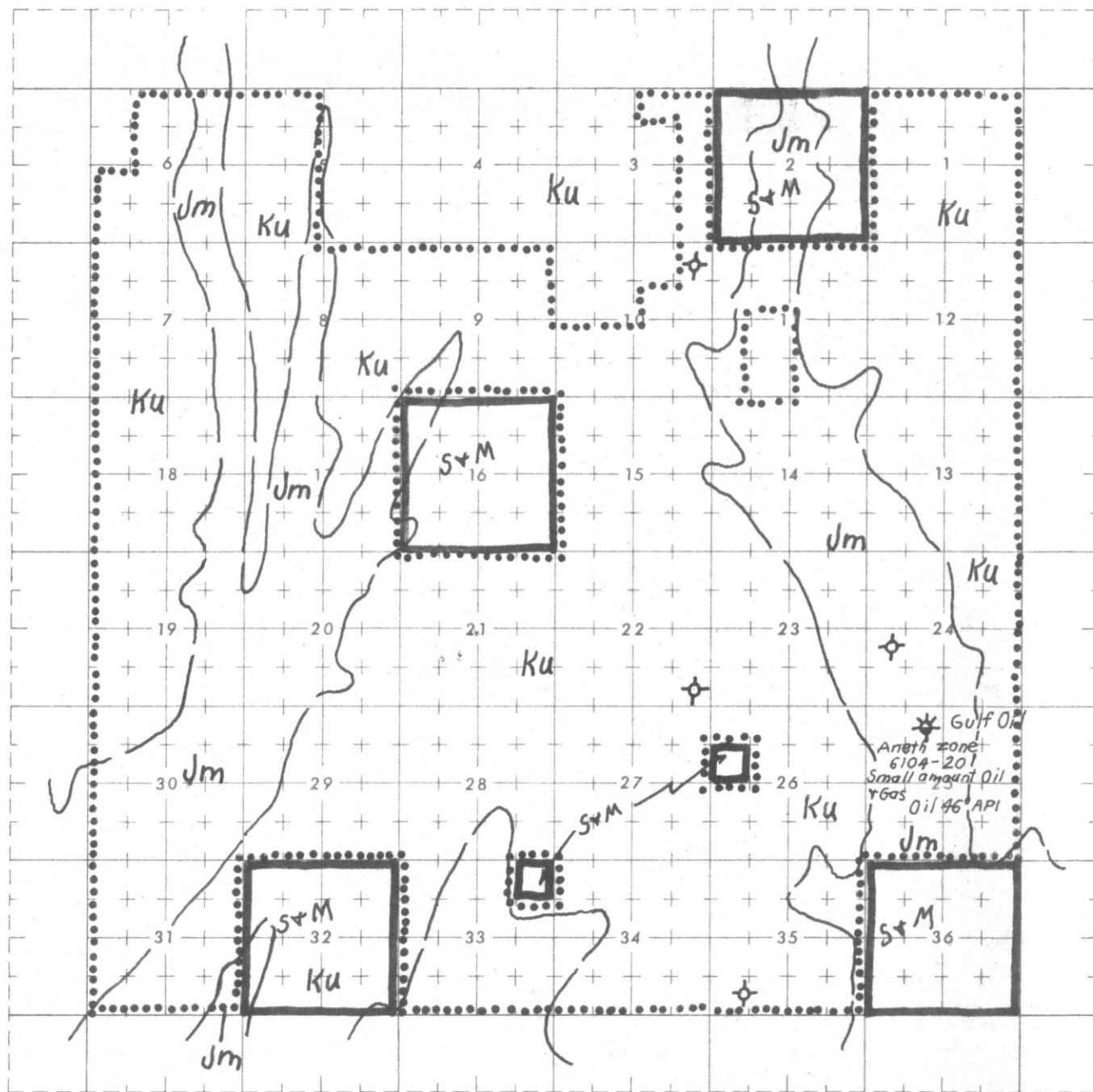
Ku Cretaceous

NOT RECOMMENDED FOR MINERAL

R.E.C. Sept. '63  
FILE B2b-44

RANGE 23 EAST

TOWNSHIP  
37  
S



SALT LAKE MERIDIAN

SAN JUAN COUNTY

BLANDING AREA

STATUS PLAT (Approximate)



STATE LANDS *S-Surf. M-Mineral*



FEDERAL LANDS



PATENTED LANDS



Mineral Appraisal  
Asked 18,538 Acres



Jm Jurassic-Morrison fm.



Ku Cretaceous

NOT RECOMMENDED FOR MINERAL

R.E.C. Sept. '63  
FILE B26-45