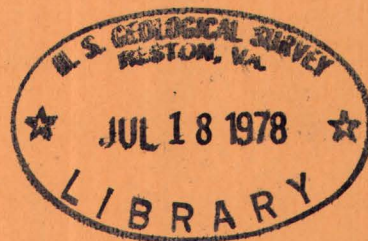


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Exploration for Uranium Deposits in the Atkinson Mesa Area, Montrose County, Colorado

By D. A. Brew, ^{David Brew} 1930



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Geology and Mineralogy

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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EXPLORATION FOR URANIUM DEPOSITS IN THE ATKINSON MESA AREA,
MONTROSE COUNTY, COLORADO*

By

D. A. Brew

May 1954

Trace Elements Investigations Report 290

This preliminary report is distributed
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for conformity with official standards
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inspection or quotation.

*This report concerns work done on behalf of the Division
of Raw Materials of the U. S. Atomic Energy Commission.

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GEOLOGY AND MINERALOGY

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TEPCO, Denver	2
TEPCO, RPS, Washington	3
(Including master)	62

CONTENTS

	Page
Abstract and summary	4
Introduction	4
Geology	5
Ore deposits	8
Guides to ore	9
Literature cited	11

ILLUSTRATIONS

- Figure 1. Index map of part of the Colorado Plateau showing the location of the Atkinson Mesa area, Montrose County, Colorado 6
2. Map and geologic sections of the Atkinson Mesa area, Montrose County, Colorado In envelope

EXPLORATION FOR URANIUM DEPOSITS IN THE ATKINSON MESA AREA,
MONTROSE COUNTY, COLORADO

By D. A. Brew

ABSTRACT AND SUMMARY

The U. S. Geological Survey explored the Atkinson Mesa area for uranium- and vanadium-bearing deposits from July 2, 1951, to June 18, 1953, with 397 diamond-drill holes that totaled 261,251 feet.

Sedimentary rocks of Mesozoic age are exposed in the Atkinson Mesa area. They are: the Brushy Basin member of the Upper Jurassic Morrison formation, the Lower Cretaceous Burro Canyon formation, and the Upper and Lower Cretaceous Dakota sandstone.

All of the large uranium-vanadium deposits discovered by Geological Survey drilling are in a series of sandstone lenses in the upper part of the Salt Wash member of the Jurassic Morrison formation. The deposits are mainly tabular and blanket-like, but some elongate pod-shaped masses, locally called "rolls", may be present. The mineralized material consists of sandstone impregnated with a uranium mineral which is probably coffinite, some carnotite, and vanadium minerals, thought to be mainly corvusite and montroseite. In addition, some mudstone and carbonaceous material is similarly impregnated. Near masses of mineralized material the sandstone is light gray or light brown, is generally over 40 feet thick, and usually contains some carbonaceous material and abundant disseminated pyrite or limonite stain. Similarly, the mudstone in contact with the ore-bearing sandstone near bodies of mineralized rock is commonly blue gray, as compared to its dominant red color away from ore deposits. Presence and degree of these features are useful guides in exploring for new deposits.

INTRODUCTION

The U. S. Geological Survey explored the Atkinson Mesa area for uranium- and vanadium-bearing deposits during the period from July 2, 1951, to June 18, 1953, by drilling 397 diamond-drill holes which totaled 261,251 feet. The purposes of the exploration were to find uranium-bearing deposits which would

make new mines and to appraise the overall uranium and vanadium reserves of the area. The exploration tested ground away from known deposits--ground that probably would not have been tested by private interests due to the great risk of such exploration being unprofitable.

The Atkinson Mesa area is about 3 miles northwest of Uravan, Montrose County, Colo. (fig. 1) and includes the topographic features known as Atkinson Mesa and Little Atkinson Mesa. The area, which covers about 14 square miles, is roughly rectangular in outline and is bounded on the north by the Mesa Creek drainage system, on the west by the Dolores bench, bordering the Dolores and San Miguel Rivers, and on the south, southeast, and east by the Atkinson Creek drainage system. It includes all or parts of secs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, and 20, T. 48 N., R. 17 W.; parts of secs. 1, 2, 11, 12, 13, and 24, T. 48 N., R. 18 W.; and parts of secs. 34 and 35, T. 49 N., R. 17 W.; New Mexico principal meridian.

The altitude of the area ranges from about 5,600 feet in the north-central part of the area to about 6,100 feet in the western and 6,300 feet in the eastern parts. The surface relief is generally slight to moderate, but steep washes and abrupt rims make access difficult locally. The vegetation in the area consists of juniper and piñon on the rock outcrops and abundant sagebrush on the alluvial flats. The climate is semiarid and water is scarce except after melting of the winter snows and after rainstorms.

Access to the Atkinson Mesa area is by two unimproved roads which connect with Colorado Highway 141 about 2 miles northwest of Uravan; one traverses east along Atkinson Creek and the other climbs directly onto the southwestern corner of the Mesa. The drill sites in the area are connected by a network of truck trails.

This report summarizes the results of the Geological Survey exploration and contains a brief description of the geology and ore deposits of the Atkinson Mesa area. The work was done on behalf of the Division of Raw Materials of the U. S. Atomic Energy Commission.

GEOLOGY

Sedimentary rocks of Mesozoic age are exposed in and surrounding the Atkinson Mesa area. These rocks are, from oldest to youngest; the Upper Jurassic Morrison formation, the Lower Cretaceous Burro Canyon formation, and the Upper and Lower Cretaceous Dakota sandstone.

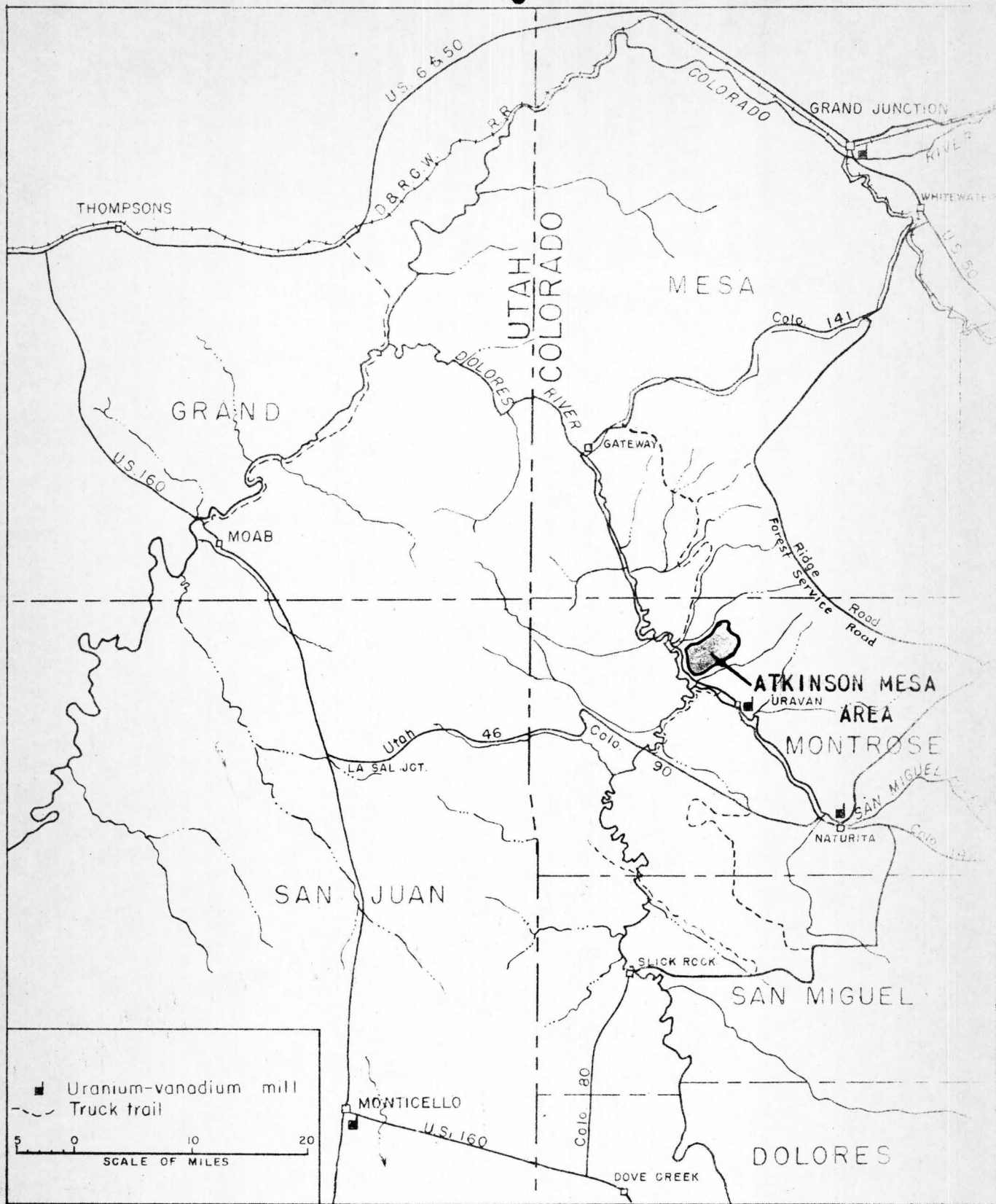


Figure 1. INDEX MAP OF PART OF THE COLORADO PLATEAU SHOWING THE LOCATION OF THE ATKINSON MESA AREA, MONTROSE COUNTY, COLORADO

The rocks are slightly folded into the northwest-trending and plunging San Miguel syncline, dipping toward the synclinal axis at angles of about 5° on both flanks. A small normal fault with a maximum displacement of 40 feet extends from the Dolores bench into the southeastern corner of Atkinson Mesa (fig. 2). Very minor slump faulting occurs along the Mesa rim.

The Morrison formation is divided into the Salt Wash and Brushy Basin members. The Salt Wash member is about 300 feet thick and consists of sandstone lenses with interbedded mudstone lenses. The Brushy Basin member, which conformably overlies the Salt Wash, consists largely of variegated red, green, and blue-gray claystone with interbedded sandstone lenses, some of which are conglomeratic. It is about 360 feet thick. Except for the uppermost Brushy Basin rocks, the Morrison formation is not exposed in the map area shown in figure 2 but is exposed to the south and west of the mapped area, on the adjoining Dolores bench. The Burro Canyon formation, which is about 40 feet thick and consists of conglomeratic sandstone with shale lenses, and the Dakota sandstone, which is about 50 feet thick and consists of sandstone with some conglomeratic lenses, form a prominent rim surrounding the Atkinson Mesa area. The stratigraphy of the Morrison and related formations has been discussed in detail by Craig and others (1951).

The uppermost series of sandstone lenses of the Salt Wash contains most of the uranium-vanadium deposits on Atkinson Mesa. This unit, consisting of three main lenses with interbedded mudstone, is called the "ore-bearing sandstone". It ranges in total thickness from a few feet to more than 100 feet. Most of the mineralized rock and all of the important deposits are contained in the upper and lower sandstone lenses. The ore-bearing sandstone is fine- to medium-fine grained and is dominantly light brown, light gray, and light red. In the vicinity of the large deposits only light brown and light gray sandstones occur; with them are generally associated limonite spots or disseminated pyrite.

Mudstone which overlies, underlies, or is within the ore-bearing sandstone is predominantly red. The mudstone within the ore-bearing sandstone occurs as thin seams and splits, pebbles, flakes, and in the interstices between the sand grains. Mudstone in contact with the ore-bearing sandstone above, below, and near large masses of mineralized rock is commonly blue green or blue gray. The cause of this variation

from the dominant red is as yet undetermined. The "alteration" of the mudstone from red to blue green or blue gray persistently extends for some distance beyond the limits of mineralized rock and is therefore a useful target in exploration.

Some carbonaceous matter, consisting of coal-like, charcoal-like, and residual petroliferous material, is found in the ore-bearing sandstone. Although these materials are often associated with bodies of mineralized rock, there are many instances where the carbonaceous debris occurs abundantly with no apparent relation to mineralized material; as a result, the occurrence of such debris is useful only as a minor geologic guide in exploration in the Atkinson Mesa area.

A general discussion of the geology and habits of the uranium and vanadium deposits of southeastern Colorado is given by Fischer (1942). A description of the "Uravan mineral belt", an elongate strip in which the uranium-vanadium deposits are larger and of higher grade than in other areas, is given by Fischer and Hilpert (1952). This "mineral belt" trends about north across Atkinson Mesa, and all of the large deposits in the Atkinson Mesa area are within its boundaries.

ORE DEPOSITS

The ore deposits consist largely of sandstone impregnated with uranium- and vanadium-bearing minerals. In addition, the ore minerals impregnate mudstone and replace carbonaceous material.

The principal uranium-vanadium minerals are the "blue-black" type. The main uranium-bearing mineral in this type of ore probably is coffinite and/or uraninite (Stern, oral communication). The main vanadium-bearing minerals are thought to be corvusite-- $V_2O_4 \cdot 6UO_3 \cdot nH_2O$, and montroseite -- $VO(OH)$. Carnotite-- $K_2(UO_2)_2(VO_4)_2 \cdot 3H_2O$ -- is locally abundant in the deposits but is not the most important ore mineral. The minerals are present as coatings on individual sand grains and as interstitial particles between the grains. The richest ores are a very dark blue or black and the lighter-colored mineralized rock is generally of lower grade.

The ore deposits are essentially tabular or lens-shaped masses which approximately parallel the bedding planes, but which may be cross-cutting in detail. Narrow elongate ore bodies, locally referred to as "rolls", may occur, but exploration on Atkinson Mesa and the adjacent Dolores bench suggests that such

pod-like masses are not as abundant as elsewhere in the Uravan mineral belt. No persistent trends are demonstrated by the elongate axes of the ore deposits in the Atkinson Mesa area. Mineralized fossil logs may be present within the ore deposits; such occurrences have been noted in the deposits of the Dolores bench.

The ore deposits on Atkinson Mesa range in size from a few tons to several thousand tons. They are irregular in outline and range in areal extent from a few hundred square feet to several hundred thousand square feet.

The ratio of uranium to vanadium in most of the Colorado Plateau deposits is about 1-6. The ratio on Atkinson Mesa may be somewhat higher inasmuch as the other deposits within the Uravan mineral belt have proved to have a ratio of about 1-5 (Shoemaker, oral communication).

GUIDES TO ORE

Certain geologic features, deducible from drill cores, have been found to be commonly associated with bodies of mineralized rock. Weir (1952) gives a detailed analysis of these features. The guides to ore used on Atkinson Mesa are modified versions of those presented by Weir. No single geologic feature is persistent enough to be used alone in defining ground as "favorable, semifavorable, or unfavorable" for ore deposits, but by evaluating all the various features a reasonably accurate delimitation can be made.

The following geologic criteria are useful guides to ore on Atkinson Mesa:

1. The mudstone associated with the ore-bearing sandstone has been "altered" from red to blue-green or blue-gray in the vicinity of the deposits. This "alteration" decreases outward from the masses of mineralized rock for a few hundred feet and constitutes an extensive target.
2. The sandstone near the ore deposits is light-brown or light-gray, with little or no red mudstone associated with it.
3. The sandstone in the vicinity of the deposits commonly contains abundant limonite spots, widespread limonite stain, or disseminated pyrite. Pyrite being altered to spots of limonite is present in many specimens of drill core.

4. The ore deposits occur where the total thickness of the ore-bearing sandstone is greater than 40 feet. However, the deposits do not have any detailed relationship to the thickness, which ranges from less than 20 feet to over 100 feet.

5. The presence of carbonaceous material, both radioactive and nonradioactive, in the ore zone is considered a relatively poor guide. Mineralized sandstone is associated with it in some places, but not everywhere.

Careful evaluation of all these geologic features in an area where the holes are spaced 750 to 2,000 feet apart gives a generalized outline of the favorable ground, which serves as a guide for closer-spaced drilling.

In addition to these guides, several other geologic features were plotted on maps and analyzed in an attempt to develop new guides to exploration. These features were: gamma-ray values at the contact of the ore-bearing sandstone and the underlying mudstone, maximum drill-hole gamma-ray values, structural contours, mudstone-sandstone ratios, and "transmissibility" values for the ore-bearing sandstone. Of these various features, the most promising one was the "transmissibility" values which were calculated for the ore-bearing sandstone in each drill hole. These values depend upon the thickness of the ore-bearing sandstone and the permeability of the various lithologic units within the sandstone. The permeability values used are approximations developed by testing in the laboratory specific examples of the rock types generally encountered in the drill holes. This laboratory work was begun by D. A. Phoenix in 1951 and is being continued by D. A. Jobin of the Geological Survey in Grand Junction, Colo. The contouring of these values on Atkinson Mesa revealed areas of relatively high transmissibility to be associated with the ground known to be underlain by mineralized rock. None of the other features were considered to be potentially valid guides to finding ore in the Atkinson Mesa area.

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CONTENTS

	Page
Abstract and summary	13
Introduction	15
Geological Survey exploration	15
Reserves	16
Indicated and inferred reserves	18
Definitions	18
Thickness cutoff	19
Grade cutoffs	19
Calculation of tonnage	20
Calculation of grade	20
Reserve blocks	21
Potential reserves	21
Plans and recommendations	21
Literature cited	22
Unpublished reports	22

ILLUSTRATIONS

Figure 3. Map and geologic sections of the southwestern part of Atkinson Mesa area, Montrose County, Colorado	In envelope
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TABLES

Table 1. Summary of indicated and inferred reserves 1 foot or more thick, Atkinson Mesa area, Montrose County, Colorado	14
2. Summary of indicated and inferred reserves, 1 foot or more thick, in the Atkinson Mesa area, Montrose County, Colorado	17
3. Assay data, Atkinson Mesa area, Montrose County, Colorado	23

USGS, TEI-290, Part II

ABSTRACT AND SUMMARY

U. S. Geological Survey exploration in the Atkinson Mesa area consisted of 397 diamond-drill holes, totaling 261,251 feet in depth, drilled between July 2, 1951, and June 18, 1953.

Table 1 gives a summary of the indicated and inferred reserves found by this drilling in the Atkinson Mesa area. Those reserves containing material of 0.10 percent or more U_3O_8 and/or 1.0 percent or more V_2O_5 total 331,900 short tons averaging about 0.40 percent U_3O_8 and 2.80 percent V_2O_5 . Potential reserves, the existence of which is predicted solely on geologic evidence, are estimated to total about 30,000 short tons, averaging about 0.35 percent U_3O_8 and 2.00 percent V_2O_5 .

It may be noted that under inferred reserves (table 1) the pounds of U_3O_8 and V_2O_5 contained in the tonnage ascribed to the lower reserve cutoffs (material 1 foot or more thick containing 0.05% U_3O_8 or 0.50% V_2O_5) is less than that contained in the tonnage calculated at the higher reserve cutoffs (material 1 foot or more thick containing 0.10% U_3O_8 or 1.0% V_2O_5). This seemingly anomalous situation is due to the fact that some of the metal reserve calculated as inferred under the higher cutoffs becomes indicated reserve at the lower cutoffs because of the spacing of the sample points; as a result the metal contained in the inferred tonnage calculated at the lower cutoffs is less than that contained in the tonnage calculated as inferred at the higher cutoffs. Overall, of course, the metal content of the rock calculated at the lower cutoffs is greater than the metal content of the reserve tonnage calculated at the higher cutoffs.

No further exploration in the Atkinson Mesa area is planned by the Geological Survey. Because of the depth of the ore-bearing strata, underground drifting and drilling by lessees are probably the most economical ways of developing more reserves.

Table 1. --Summary of indicated and inferred reserves 1 foot or more thick, Atkinson Mesa area, Montrose County, Colorado

Reserves	Grade cutoff	Short tons	Percent		Pounds ^{-/_}	
			U ₃ O ₈	V ₂ O ₅	U ₃ O ₈	V ₂ O ₅
Indicated	0.10% U ₃ O ₈ or 1.0% V ₂ O ₅	113,000	0.40	3.00	904,000	6,780,000
	0.05% U ₃ O ₈ or 0.50% V ₂ O ₅	191,000	0.30	2.25	1,146,000	8,595,000
Inferred	0.10% U ₃ O ₈ or 1.0% V ₂ O ₅	218,900	0.40	2.70	1,751,200	11,820,600
	0.05% U ₃ O ₈ or 0.50% V ₂ O ₅	252,000	0.30	2.10	1,512,000	10,584,000

^{-/_} Figures rounded to nearest 100 pounds

INTRODUCTION

Due to the comparatively great depth of the ore-bearing strata no exploration for uranium and vanadium deposits in the Atkinson Mesa area had been done prior to the work done by the U. S. Geological Survey. There are no mines in the area and, therefore, no production has come from the area. Preliminary results of Geological Survey exploration have been reported previously (Jobin and Schessler, 1953; and Brew, 1953).

The large deposits discovered by Geological Survey drilling are in the southwestern part of the Mesa; they either connect with, or overlap, deposits found by Geological Survey exploration on the adjacent Dolorès bench (Jobin, 1953). The deposits on Atkinson Mesa range in size from a few tons to over 100,000 tons. (All tons in this report are short tons). The mineralized rock in the four deposits which are economically significant averages between 0.30 percent and 0.40 percent U_3O_8 , and between 2.00 percent and 3.00 percent V_2O_5 .

Approximately 75 percent of the reserve material in these deposits is in public land; the remaining 25 percent of the reserves are in the King Solomon No. 5 claim. Some of the reserves in public land have been leased by the Atomic Energy Commission; the lease boundaries are shown on figures 2 and 3.

GEOLOGICAL SURVEY EXPLORATION

Geological Survey exploration started in the Atkinson Mesa area on July 2, 1951, and continued through June 18, 1953. During that period 397 diamond-drill holes were completed on two separate contracts for a total of 261,251 feet. The holes averaged 650 feet in depth.

Of the 397 holes drilled, 173 are in mineralized rock (material containing 0.020 percent or more U_3O_8 or 0.10 percent or more V_2O_5), and 33 of the 173 are in mineralized rock that is in the highest reserve class used in this report (material 1 foot or more thick containing 0.10 percent or more U_3O_8 or 1.0 percent or more V_2O_5). All but nine of the holes are on public land; those nine are on the United States Vanadium Company's King Solomon No. 5 claim in the southwestern part of the Mesa (fig. 2).

The exploratory drilling was accomplished in three stages. The first stage, the purpose of which was to outline roughly the ground favorable for ore deposits, consisted of drilling holes on 2,000-foot centers approximately along the strike of the beds, cutting the expected trends of the deposits at an angle of about 50°. These lines of holes were 1,000 feet apart. As drilling progressed away from the southwestern rim of Atkinson Mesa, the majority of the Mesa proved to be underlain by semifavorable and unfavorable ground, a situation which had been indicated by rim-walking done prior to the drilling; as a result, the distance between the lines of drill holes was increased to 2,000 feet toward the northeast. This stage of drilling was completed with 125 holes.

The purpose of the second stage of drilling was to search for ore deposits. The holes were drilled on approximately 750-foot centers within the favorable area defined by first-stage drilling. This second-stage drilling was completed with 106 holes. The third stage of drilling defined roughly the limits of the deposits discovered by the first- and second-stage drilling and consisted of 166 holes offset 100 to 300 feet from the holes which had cut mineralized rock.

RESERVES

The terms "indicated" and "inferred" reserves are applied to the uranium- and vanadium-bearing material in the deposits that are known from drill holes. These reserves are subdivided by thickness and grade cutoffs, and the method used in calculating them is explained below. Figures expressing the calculated tonnage and grade of the indicated and inferred reserves for each reserve block, and for each grade cutoff, are given in table 2. The ground containing the reserve blocks and several geologic sections showing the position of the mineralized rock in the ground is shown on figures 2 and 3.

In addition to the known deposits, other deposits are probably present which have not yet been found. These deposits are predicted solely on interpretation of geologic evidence, for there is no physical proof of their existence. The term "potential" reserves is applied to the material in these deposits. Potential reserves are described on page 21.

Although reserves are not classified in this report according to their availability for mining, consideration was given to the 1953 mining and milling practices in selecting the higher grade and thickness cutoffs. This was done to obtain figures for a category of reserves that would express as nearly as possible the

Table 2. --Summary of indicated and inferred reserves _/ 1 foot or more thick, in the Atkinson Mesa area, Montrose County, Colorado

(based on Geological Survey drilling, 1951-53)

		INDICATED						INFERRED					
		Grade cutoff 0.10% U ₃ O ₈ or 1.0% V ₂ O ₅			Grade cutoff 0.05% U ₃ O ₈ or 0.50% V ₂ O ₅			Grade cutoff 0.10% U ₃ O ₈ or 1.0% V ₂ O ₅			Grade cutoff 0.05% U ₃ O ₈ or 0.50% V ₂ O ₅		
Block No.	Location (claims)	Short tons	Percent		Short tons	Percent		Short tons	Percent		Short tons	Percent	
			U ₃ O ₈	V ₂ O ₅		U ₃ O ₈	V ₂ O ₅		U ₃ O ₈	V ₂ O ₅		U ₃ O ₈	V ₂ O ₅
A	Public land King Solomon No. 5	113,000	0.40	3.00	191,000	0.30	2.25	218,000	0.40	2.70	249,600	0.30	2.10
B	Public land	-	-	-	-	-	-	500	1.16	3.44	500	1.16	3.44
C	Public land	-	-	-	-	-	-	400	0.18	0.82	1,000	0.086	0.80
D	Public land	-	-	-	-	-	-	-	-	-	500	0.064	<0.1
E	Public land	-	-	-	-	-	-	-	-	-	400	0.070	<0.1
Totals		113,000	0.40	3.00	191,000	0.30	2.25	218,900	0.40	2.70	252,000	0.30	2.10

_/ Rounded to the nearest 100 tons

tonnage and grade of the material that might actually be mined from these deposits under 1953 conditions. A summary of indicated and inferred reserves in this category, and in a lower-grade category, is given in table 1 (page 14) and a more detailed presentation is given in table 2 (page 17).

Indicated and inferred reserves

Definitions

Known reserves are classed as indicated and inferred. Owing to the erratic variations in thickness and grade of uranium- and vanadium-bearing ores within short distances, and the general lack of abundant sample data for individual reserve blocks, the amount of reserves that can be calculated within a small limit of error, and thus can be classed as "measured," is so small as to be nearly negligible. Therefore, reserves that might be classed as measured are included with indicated reserves.

Indicated reserves / are those for which the grade is computed from drill-hole samples, and for

 / The definitions used here for indicated and inferred reserves are abstracted from the definitions adopted by the Bureau of Mines and the Geological Survey in April 1943.

which the tonnage is computed by projections for a reasonable distance on geologic evidence from drill holes. Inferred reserves are those for which quantitative estimates are based largely on broad knowledge of the geologic character of the deposits and for which there are few, if any, samples or measurements.

Because of the variations in thickness and grade of ore and the scarcity of sample data, the indicated reserves in any single reserve block might actually amount to as much as twice the calculated tonnage or as little as one-half the calculated tonnage. The limit of error of the total tonnage for several blocks, however, is apt to be considerably lower, perhaps not more than 25 percent of the calculated tonnage. For this reason indicated reserves are not computed for single holes in reserve-grade material that have not been offset or cannot be connected with known deposits or mine workings. The limit of error in the tonnage figures for inferred reserves, of course, is apt to be higher than for indicated reserves. The possible limit of error in the calculated or estimated grade for both indicated and inferred reserves probably is somewhat smaller than the possible limit of error in the tonnage figures.

Thickness cutoff

Although mining practices vary throughout the region as well as with individual operators, under 1953 mining conditions most ore bodies of average grade are being mined to where they pinch to a layer about 1 foot thick. Layers of material less than 1 foot thick are mined in places if the grade is high. The tonnage of minable material less than 1 foot thick is small with respect to the total reserve and for that reason reserves less than 1 foot thick are not calculated.

Grade cutoffs

The deposits contain two metals of economic importance, uranium and vanadium. The oxides of these metals, U_3O_8 and V_2O_5 , occur in an average ratio of about 1:7 as estimated from the assays of the Geological Survey drill core from the Atkinson Mesa area. Within the deposits, however, the two metals are so erratically distributed that a single sample, obtained from a drill hole, is not necessarily representative of the metal ratio or grade of the material near the point sampled. Knowing this by experience, the miner will drive toward a drill hole that shows a good value in vanadium, even though the uranium content of the sample might be negligible. Thus the material in the vicinity of this sample must be classed as a reserve, even though the sample shows a value for only one metal. Furthermore, with the 1951 price schedules (Atomic Energy Commission, 1951) for ore, the vanadium content of ore with the expected metal ratio (1:7) constitutes about two-fifths of the market value of the ore. Thus both metals must be considered in reserve appraisals in selecting grade cutoffs.

Reserves 1 foot or more thick are classified by two grade cutoffs. The higher cutoff--0.10 percent U_3O_8 or 1.0 percent V_2O_5 --corresponds to the Atomic Energy Commission purchase cutoff for uranium and the commonly used mill cutoff for vanadium. Reserves are figured also on a lower cutoff--0.05 percent U_3O_8 or 0.50 percent V_2O_5 --on the possibility that conditions in the future might demand or permit the mills to accept lower-grade ore.

Calculation of tonnage

The method used for calculating the volume, and hence the tonnage, of a reserve unit 1 foot or more thick is based upon the premise that the reserve unit is a uniformly tapered mass. The average thickness of the drill-hole samples that can be combined within the specified grade class is assumed to be the average thickness of the reserve unit.

By definition, the tonnage of the indicated reserves ". . . is computed by projection for a reasonable distance on geologic evidence". Throughout the Atkinson Mesa area, indicated reserves are projected where correlation of samples is good between drill holes that are not more than 250 feet apart. On the other hand, indicated reserves are not projected more than 40 feet beyond sample points, where the edge of the reserve mass has not been located or where correlation of data between sample points is lacking. Reserves are classed as inferred rather than indicated if the projection exceeds these lengths. Inferred reserves are projected to the assumed limits of the reserve mass, as determined by geologic evidence and interpretation.

A constant of 14 cubic feet per ton is used to calculate tonnage.

Calculation of grade

The average grade of the indicated reserves is calculated by weighting the assay values of all samples that qualify as reserves within the grade and thickness limits. As strict grade cutoffs are used, it is generally expected that the average grade assigned to the reserve blocks will be somewhat higher than the average grade of the ore that will be eventually mined from them, owing to the unavoidable dilution of the ore with waste and low-grade material during mining. On the other hand, the tonnage assigned to these blocks should be somewhat lower than the tonnage mined from them, owing to the increment of waste and low-grade material.

Reserve blocks

Masses or units of mineralized rock that constitute an indicated or inferred reserve, as defined by the thickness and grade cutoffs, are called reserve blocks. The geometric limits of reserve blocks are determined by the rules used in calculating reserves. (See above.) The exact positions of the blocks are not shown on figure 2 though the mineralized ground that contains the blocks is designated by block numbers. Where mineralized layers overlap, even though they contain two or more masses of reserves, a single block number is assigned, and the total tonnage of these masses, as well as their weighted grade, is shown on table 2. Indicated and inferred reserves containing material of 0.10 percent or more U_3O_8 or 1.0 percent or more V_2O_5 total about 331,900 tons averaging 0.40 percent U_3O_8 and 2.80 percent V_2O_5 in the Atkinson Mesa area (table 2).

Potential reserves

Potential reserves are contained in deposits not yet found, the existence of the deposits being predicted solely on geologic evidence. About 30,000 tons of potential reserves, 1 foot or more thick and containing about 0.35 percent U_3O_8 and about 2.0 percent V_2O_5 , are predicted for the Atkinson Mesa area. All of these potential reserves are probably contained in small deposits of less than 1,000 tons in the area surrounding the large mass of mineralized rock in the southwestern part of the Mesa. Blocks B and C are typical examples of these small reserve masses (fig. 2 and table 2).

PLANS AND RECOMMENDATIONS

No further exploration is planned by the Geological Survey for the Atkinson Mesa area. Due to the excessive depth of the ore-bearing strata, exploratory drifting and underground drilling by lessees would probably be the most economical means of developing more reserves, especially immediately to the north, northeast, and south of reserve block A.

LITERATURE CITED

Atomic Energy Commission, June 1951, Domestic uranium program Circ. 6.

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Brew, D. A., 1953, Preliminary report on exploration in the Atkinson Mesa area, Montrose County, Colorado: U. S. Geol. Survey Trace Elements Memo. Rept. 274.

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23

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado

Geological Survey exploration, 1951-53. Assays by the Geological Survey.

Rock units containing less than 0.020% U_3O_8 , less than 0.020% equivalent U_3O_8 , and less than 0.10% V_2O_5 , as determined by assay of drill core, are considered to be barren. Barren holes and rock units are omitted from this table.

Assay data listed under "block" (i.e. block A) are within the blocks of calculated reserves discussed in this report.

Assay data listed under "other holes" are within the areas from which no reserves are calculated because the samples recovered are too thin or too weakly mineralized to qualify for the selected grade and thickness cutoffs.

Gamma-ray data obtained by probing drill holes with radiometric logging unit. Radioactivity expressed as percent equivalent U_3O_8 . Values less than 0.020% e U_3O_8 are omitted from this table. These data are of doubtful reliability.

Most collar elevations and hole locations obtained by plane-table survey methods; others by less accurate methods, shown with asterisk (*).

Undet Undetermined

e Equivalent

< Less than

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Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Assay data							Gamma-ray data			
Hole No. and collar elev. (feet)	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A Public land; King Solomon No. 5 (USV)										
13	555.4	556.4	1.0	< 0.020e	0.15	Undet	0.036	553.5	554.5	1.0
(6130)	556.4	556.9	0.5	0.025e	< 0.1	Undet				
	559.2	559.7	0.5	0.040	< 0.1	< 0.1	0.025	556.6	557.8	1.2
	566.1	567.0	0.9	0.074	< 0.1	0.6	0.12	563.5	564.4	0.9
	567.8	568.0	0.2	0.033e	< 0.1	Undet	0.11	566.1	567.0	0.9
	568.0	568.3	0.3	0.032e	< 0.1	Undet	0.16	568.4	569.3	0.9
	568.8	569.0	0.2	0.14	0.12	0.4	0.049	569.3	570.0	0.7
	569.0	569.4	0.4	0.026e	< 0.1	Undet	0.18	570.0	571.1	1.1
	570.5	571.5	1.0	0.023	0.35	Undet	3.5	602.9	604.2	1.3
	571.5	571.6	0.1	0.026e	0.20	Undet				
	571.6	572.6	1.0	0.034	0.10	Undet				
	577.6	578.1	0.5	0.022e	< 0.1	Undet				
	605.7	607.2	1.5	1.041	1.87	4.72				
21	606.6	607.4	0.8	0.042	0.13	3.7	0.028	604.2	606.2	2.0
(6098)	621.8	622.5	0.7	0.041	< 0.1	8.4	0.030	614.3	615.1	0.8
	622.5	623.3	0.8	0.071	0.11	7.0				
	623.3	623.5	0.2	0.034e	0.28	Undet	0.034	618.8	619.4	0.6
	623.5	623.8	0.3	0.069	0.84	3.5	0.12	619.4	621.5	2.1
	623.8	623.9	0.1	0.027e	0.62	5.1	0.020	621.5	622.0	0.5
	623.9	624.2	0.3	0.17	1.23	2.9				
	624.2	624.4	0.2	0.20	4.06	2.8				
	624.4	624.7	0.3	0.025	3.66	2.0				
	624.7	624.8	0.1	< 0.020e	0.46	Undet				

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25

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent ^{238}U	Depth in feet		Thickness (feet)
	From	To		U_3O_8	V_2O_5	CaCO_3		From	To	
Block A--Continued										
69	588.9	589.4	0.5	< 0.020e	0.15	Undet	0.13	587.0	588.0	1.0
(6098)	589.4	589.9	0.5	0.094	< 0.1	2.6	0.14	588.0	589.1	1.1
	589.9	590.7	0.8	0.020e	< 0.1	Undet				
	590.7	591.2	0.5	0.082	< 0.1	1.5	0.19	591.0	591.8	0.8
	591.2	591.7	0.5	0.027e	< 0.1	Undet				
							0.064	592.4	593.3	0.9
	593.5	594.0	0.5	0.066	0.64	1.6				
	594.0	594.5	0.5	0.026e	0.49	Undet				
72	584.0	585.3	1.3	0.032e	< 0.1	Undet	0.037	584.0	586.1	2.1
(6073)	585.3	586.6	1.3	0.033e	< 0.1	Undet				
	586.6	587.8	1.2	0.049	< 0.1	1.2	0.078	587.0	587.7	0.7
	587.8	589.1	1.3	0.032e	0.10	Undet	0.040	587.7	590.8	3.1
	589.1	589.6	0.5	0.055e	< 0.1	Undet	0.048	590.8	592.6	1.8
	589.6	590.4	0.8	0.031	< 0.1	2.3	0.023	592.6	594.6	2.0
	590.4	591.3	0.9	0.053	0.12	1.8	0.041	594.6	595.9	1.3
	591.3	592.0	0.7	0.066	0.14	1.7	0.047	595.9	597.4	1.5
	592.0	593.0	1.0	0.056	< 0.1	2.7	0.020	597.4	599.4	2.0
	593.0	594.0	1.0	0.045	0.1	3.0				
	594.0	595.4	1.4	0.031e	< 0.1	Undet	0.043	603.9	604.6	0.7
	595.4	595.9	0.5	0.055	< 0.1	3.0				
	595.9	597.2	1.3	0.049	< 0.1	4.1				
	597.2	598.4	1.2	0.029e	< 0.1	Undet				
	598.4	599.4	1.0	0.021e	0.1	Undet				
	599.4	600.4	1.0	0.021e	< 0.1	3.6				
	603.2	603.3	0.1	0.11	0.12	3.0				

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Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₂ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
73 (6101)	589.9	590.1	0.2	0.064	< 0.1	0.6	0.021	585.1	585.9	0.8
							0.024	585.9	587.8	1.9
	592.7	593.8	1.1	0.035	0.49	0.4				
	593.8	594.7	0.9	0.051	0.28	1.4	0.084	590.4	592.0	1.6
	594.7	595.0	0.3	0.059	0.32	1.0	0.024	592.0	592.4	0.4
	595.0	595.3	0.3	0.024e	< 0.1	Undet	0.35	592.4	593.3	0.9
	595.6	595.8	0.2	0.023e	0.11	Undet	6.8	595.0	595.6	0.6
	595.8	596.3	0.5	0.036	0.26	3.3				
	596.3	596.6	0.3	0.075	1.21	1.4				
	596.6	597.0	0.4	3.97	8.64	1.0				
	597.0	597.9	0.9	0.040	< 0.1	9.3				
74 (6097)	632.7	633.2	0.5	0.084	< 0.1	1.7	0.036	630.0	631.6	1.6
							0.076	631.6	632.4	0.8
	634.0	634.5	0.5	0.026e	< 0.1	Undet				
75 (6102)	532.6	532.9	0.3	0.020e	< 0.1	Undet	0.021	532.8	533.8	1.0
	532.9	533.4	0.5	0.033e	< 0.1	Undet				
							0.028	535.3	536.8	1.5
	535.3	535.6	0.3	0.037	< 0.1	0.4				
79 (6114)	532.8	533.0	0.2	0.077	< 0.1	0.2	Barren			
80 (6099)	543.9	544.5	0.6	0.021	< 0.1	0.3	0.042	540.8	543.0	2.2
	544.5	544.8	0.3	0.031	0.17	1.3	0.48	543.0	545.3	2.3
	544.8	545.5	0.7	0.32	4.30	1.2	0.021	545.3	546.8	1.5
	545.5	545.8	0.3	0.12	14.01	0.8	0.068	546.8	547.8	1.0
	545.8	546.5	0.7	0.29	4.44	0.8				
	546.5	546.8	0.3	0.38	6.48	1.1				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
80--Continued	546.8	547.9	1.1	0.12	2.86	2.2				
	547.9	548.4	0.5	0.033e	2.20	3.2				
	548.4	548.7	0.3	< 0.020e	3.14	0.7				
	548.7	549.2	0.5	0.028e	2.64	0.4				
	549.2	549.8	0.6	< 0.020e	2.64	0.4				
160 (6092)	554.9	555.2	0.3	< 0.020e	0.13	Undet	1.3	554.9	555.5	0.6
	555.2	555.9	0.7	0.40	0.75	6.3				
	555.9	556.2	0.3	0.030e	0.70	5.1	0.44	599.8	600.7	0.9
	556.2	556.3	0.1	0.035	0.30	1.2				
							0.041	602.3	603.7	1.4
	599.1	599.4	0.3	0.034e	0.18	Undet	0.027	603.7	605.0	1.3
	599.4	600.2	0.8	0.36	1.13	0.4				
	600.2	600.5	0.3	0.022	0.18	2.5				
	601.9	602.2	0.3	0.020e	< 0.1	Undet				
	602.8	603.5	0.7	0.053	< 0.1	3.8				
164 (6104)	578.2	578.5	0.3	0.030e	< 0.1	Undet	0.021	555.7	557.1	1.4
	578.6	579.0	0.4	0.040	0.15	2.5	0.60	577.5	578.2	0.7
	579.0	579.3	0.3	0.14	0.60	1.0	1.9	578.2	579.8	1.6
	579.3	580.0	0.7	1.17	1.53	1.2	0.76	579.8	580.5	0.7
	580.0	580.9	0.9	3.25	10.3	2.2				
	580.9	581.4	0.5	1.43	23.13	0.9				
	581.6	581.9	0.3	0.028	< 0.1	2.9				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
166	538.9	539.3	0.4	0.062	< 0.1	0.4	0.024	535.2	536.0	0.8
(6092)	539.3	539.6	0.3	0.043	0.25	0.2				
	585.2	585.4	0.2	0.061	0.40	2.1	0.093	536.7	537.4	0.7
	585.4	585.5	0.1	0.13	3.36	0.1	0.090	585.3	586.3	1.0
	585.5	586.1	0.6	0.032e	0.20	Undet	0.42	588.2	589.0	0.8
							0.040	590.9	591.6	0.7
167	523.0	523.3	0.3	0.046	2.83	0.4	0.066	532.0	532.9	0.9
(6075)	523.3	523.8	0.5	0.51	3.63	0.6				
	523.8	524.2	0.4	0.25	1.35	0.1	0.036	534.9	535.8	0.9
	524.2	524.8	0.6	0.088	1.83	0.1	0.16	574.2	575.6	1.4
	562.5	563.4	0.9	0.030e	0.18	Undet	0.088	581.1	582.7	1.6
	563.5	563.6	0.1	0.051	0.25	0.4				
	563.6	563.9	0.3	0.044	1.75	0.2				
	563.9	564.2	0.3	0.23	1.28	0.1				
	564.2	564.8	0.6	0.073	0.25	0.8				
	569.4	570.0	0.6	< 0.020	0.83	0.5				
	570.0	570.9	0.9	0.064	1.88	0.4				
	570.9	571.2	0.3	0.031	0.53	1.0				
	571.2	571.4	0.2	0.050	2.76	0.1				
	571.7	572.0	0.3	0.021e	0.35	Undet				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
168	613.3	614.2	0.9	1.70	11.2	0.3	2.0	614.7	615.7	1.0
(6101)	614.2	614.5	0.3	0.91	1.22	0.3	0.25	615.7	616.4	0.7
	614.5	615.2	0.7	0.17	0.44	0.6	1.3	616.4	617.5	1.1
	615.2	615.6	0.4	1.91	5.41	0.3				
	615.6	615.9	0.3	0.56	11.64	0.2				
169	625.2	625.6	0.4	0.033e	< 0.1	Undet	Barren			
(6094)	634.5	635.1	0.6	0.021e	< 0.1	Undet				
170	No sample						0.026	582.5	583.5	1.0
(6092)							0.052	601.5	602.7	1.2
							0.041	603.5	604.9	1.4
171	564.5	564.8	0.3	0.027e	< 0.1	Undet	Not probed			
(6106)										
172	550.6	550.8	0.2	0.034e	< 0.1	Undet	0.028	552.1	553.2	1.1
(6106)	606.0	607.1	1.1	0.036	0.13	2.0	0.025	557.9	558.5	0.6
	607.1	608.0	0.9	0.028e	0.18	Undet				
	608.4	611.3	2.9	0.025e	0.13	Undet				
	613.9	615.1	1.2	0.030e	0.15	Undet				
173	597.7	597.8	0.1	0.13	0.49	1.7	Not probed			
(6105)										

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
175 (6085)	No sample						0.022	578.0	579.0	1.0
							0.022	587.2	589.3	2.1
							0.023	592.5	594.4	1.9
177 (6096)	612.8	612.9	0.1	0.026e	< 0.1	Undet	0.043	594.5	595.3	0.8
178 (6120)	559.1	559.5	0.4	0.033	< 0.1	0.2	0.050	554.2	555.1	0.9
							0.049	597.4	598.2	0.8
							0.026	598.2	599.8	1.6
180 (6120)	604.9	605.2	0.3	0.38	9.42	0.8	2.0	598.7	599.7	1.0
	605.2	605.4	0.2	0.90	1.75	3.0	0.12	599.7	602.0	2.3
	605.4	605.7	0.3	0.27	1.13	7.0				
	605.7	605.8	0.1	0.19	3.76	0.8				
	605.8	606.3	0.5	0.025	0.33	3.4				
	606.3	606.5	0.2	0.37	2.18	2.9				
181 (6128)	563.3	563.6	0.3	0.052	0.45	2.6	0.033	550.2	551.2	1.0
	563.6	563.9	0.3	0.14	0.48	2.8				
	563.9	564.4	0.5	0.074	0.28	3.0	0.052	560.3	563.3	3.0
	564.4	564.7	0.3	0.084	0.43	2.1	0.13	563.3	564.4	1.1
	564.7	565.0	0.3	0.18	0.50	1.3	0.28	564.4	565.4	1.0
	565.0	565.6	0.6	0.070	0.32	1.1				
	565.6	566.2	0.6	0.064	0.46	1.5				
	566.2	566.8	0.6	0.21	0.61	2.3				
	566.8	567.5	0.7	0.19	0.62	7.1				
	567.5	568.2	0.7	0.068	0.34	3.4				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent ^{60}Co	Depth in feet		Thickness (feet)
	From	To		U_3O_8	V_2O_5	CaCO_3		From	To	
Block A--Continued										
182 (6127)	553.4	553.7	0.3	0.041	0.15	1.0	0.17	548.1	549.1	1.0
	554.1	554.4	0.3	< 0.020e	0.75	0.1				
	554.4	555.2	0.8	0.068	3.08	0.1				
	555.2	555.3	0.1	< 0.020e	1.78	0.1				
183 (6084)	No sample						0.032	310.7	311.8	1.1
							0.033	560.8	561.8	1.0
							0.024	563.6	565.3	1.7
184 (6066)	567.4	567.7	0.3	0.046	< 0.1	6.0	0.026	560.7	562.2	1.5
	605.6	605.8	0.2	0.058	8.75	1.0	0.060	565.0	565.9	0.9
							0.033	577.1	578.1	1.0
							0.24	601.8	602.4	0.6
185 (6054)	545.5	546.0	0.5	0.028e	< 0.1	Undet	0.036	539.7	540.9	1.2
							0.021	565.9	567.0	1.1
196 (6080)	539.7	540.0	0.3	0.022e	0.48	Undet	0.28	539.9	541.0	1.1
	540.0	540.3	0.3	0.028e	2.70	< 0.1	0.088	541.0	541.3	0.3
	540.3	540.9	0.6	0.32	2.46	0.1	0.23	541.3	542.0	0.7
	540.9	542.1	1.2	0.15	1.28	0.1	0.081	542.0	543.2	1.2
	542.1	542.7	0.6	0.044	1.26	0.1	0.32	543.2	544.2	1.0
	542.7	543.0	0.3	0.045	1.28	0.1	2.0	544.2	545.5	1.3
	543.0	543.6	0.6	0.77	2.53	0.2				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
196--Continued	543.6	543.8	0.2	0.32	1.99	0.1				
	543.8	544.2	0.4	1.17	3.45	0.3				
	544.2	544.6	0.4	3.89	5.93	0.2				
	544.6	545.0	0.4	1.44	17.78	0.4				
	545.0	545.2	0.2	0.031	1.16	0.1				
	554.2	554.8	0.6	0.021e	< 0.1	Undet				
199 (6070)*	594.1	595.1	1.0	0.060	< 0.1	20.1	0.027	550.9	551.8	0.9
							0.024	578.7	580.0	1.3
							0.023	584.8	587.5	2.7
							0.17	588.9	589.7	0.8
							0.10	590.9	591.8	0.9
218 (6107)							0.022	590.5	591.5	1.0
							0.027	612.0	613.4	1.4
219 (6100)	562.0	562.3	0.3	0.054	0.28	0.1	0.097	554.2	555.4	1.2
	562.3	562.6	0.3	0.057	0.15	2.3	0.034	557.2	558.8	1.6
							0.15	558.8	560.0	1.2
							0.022	601.0	602.4	1.4
220 (6091)	620.1	620.3	0.2	0.023e	< 0.1	Undet	0.024	613.4	614.8	1.4
	620.9	621.2	0.3	0.033	< 0.1	2.3	0.29	621.9	622.9	1.0
							0.032	622.9	624.5	1.6

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
220--Continued	621.5	621.9	0.4	0.055	0.75	2.3				
	621.9	623.1	1.2	0.26	2.70	1.2	0.026	626.6	628.3	1.7
	623.1	623.3	0.2	0.045	3.54	1.1	0.11	628.3	629.3	1.0
	623.3	623.7	0.4	0.047	4.46	1.1				
	623.7	624.1	0.4	0.027e	2.56	0.7				
	627.8	628.0	0.2	< 0.020	2.48	0.6				
	628.0	629.1	1.1	0.034	0.43	8.5				
	629.1	629.4	0.3	0.045	3.25	4.6				
221 (6086)	554.6	555.0	0.4	0.043	< 0.1	2.9	0.037	552.4	553.2	0.8
	555.9	556.2	0.3	0.027e	< 0.1	Undet	0.050	553.9	555.9	2.0
	557.0	557.3	0.3	0.074	< 0.1	2.7	1.9	555.9	556.7	0.8
	557.3	557.9	0.6	0.28	0.10	2.5	0.12	556.7	557.8	1.1
	557.9	558.0	0.1	2.5	0.21	1.9	0.021	580.6	581.5	0.9
	558.7	559.0	0.3	0.027	0.26	0.4				
	559.0	559.3	0.3	0.039	0.18	1.1				
222 (6088)	539.4	540.6	1.2	< 0.020e	0.14	Undet	0.14	582.3	584.1	1.8
	540.6	541.3	0.7	< 0.020e	0.23	Undet				
	584.0	585.5	1.5	0.048	0.28	4.0				
223 (6102)	556.1	556.8	0.7	0.027	0.31	2.0	0.020	552.4	553.4	1.0
	556.8	557.6	0.8	0.12	0.42	2.5	0.11	557.0	558.5	1.5
	592.4	593.0	0.6	0.028e	< 0.1	Undet	0.026	593.2	594.5	1.3
	602.0	602.5	0.5	0.044	0.32	0.8				
	602.5	602.6	0.1	0.084	2.49	0.1	0.052	602.7	603.7	1.0

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34

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU_{308}	Depth in feet		Thickness (feet)
	From	To		U_{308}	V_{205}	CaCO_3		From	To	
Block A--Continued										
224 (6114)	544.7	545.2	0.5	0.034	< 0.1	3.8	0.074	545.0	546.0	1.0
	546.3	546.6	0.3	0.021e	< 0.1	Undet	0.05	546.3	547.2	0.9
	546.6	547.0	0.4	0.035	< 0.1	2.3	0.092	548.0	548.9	0.9
	549.4	550.0	0.6	0.034	0.17	2.3				
226 (6061)	Barren						0.032	512.6	513.7	1.1
227 (6107)	566.3	567.0	0.7	0.043	< 0.1	2.1	0.032	564.0	566.2	2.2
	616.7	617.0	0.3	0.65	8.6	0.2	2.40	615.1	616.0	0.9
	617.0	617.3	0.3	3.32	15.48	0.3				
	617.3	617.7	0.4	1.74	12.24	0.3				
228 (6102)	552.4	552.8	0.4	0.017e	0.24	Undet	0.23	556.0	557.1	1.1
	555.4	555.8	0.4	0.051	0.37	0.6	0.29	559.2	559.9	0.7
	555.8	556.0	0.2	0.021	0.12	0.8	0.035	559.9	560.8	0.9
	556.0	556.3	0.3	0.13	0.49	0.7	0.33	560.8	561.9	1.1
	556.3	556.5	0.1	0.63	0.68	0.9	0.025	570.8	571.7	0.9
	558.6	558.9	0.3	0.092	0.83	0.5	0.032	597.3	598.2	0.9
	558.9	559.3	0.4	0.13	1.25	0.8				
	559.3	559.6	0.3	0.028e	0.32	Undet	0.50	599.1	599.9	0.8
	559.8	560.9	1.1	0.061	0.68	1.0	0.15	599.9	600.6	0.7
	560.9	561.2	0.3	< 0.020	0.27	1.0				
	561.2	561.5	0.3	0.45	0.76	0.4				
	569.9	570.7	0.8	< 0.020e	0.27	Undet				

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Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)		Assay data					Gamma-ray data					
		Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)	
		From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To		
Block A--Continued												
228--Continued		598.0	598.6	0.6	< 0.027e	< 0.1	Undet					
		599.8	600.4	0.6	0.27	4.96	0.8					
		600.4	600.7	0.3	0.032e	0.42	Undet					
		600.9	601.2	0.5	0.036	0.12	0.5					
229 (6114)		556.0	556.3	0.3	< 0.020e	1.12	0.4	Barren				
		556.3	557.1	0.8	0.060	1.34	0.8					
		557.1	557.4	0.3	0.030e	1.76	0.1					
		557.4	557.7	0.3	< 0.020e	1.25	0.2					
		557.7	558.3	0.6	0.036	0.59	1.3					
		559.1	559.3	0.2	0.11	2.86	0.5					
		560.4	561.0	0.6	0.039	0.54	1.8					
		562.0	562.6	0.6	< 0.020e	1.00	2.0					
232 (6042)		No sample					0.038		527.6	528.3	0.7	
							0.027		532.4	533.7	1.3	
							0.038		538.5	539.5	1.0	
235 (6088)		No sample					0.029		587.8	588.9	1.1	
237 (6082)		No sample					0.023		557.5	558.6	1.1	
							0.051		582.4	583.9	1.5	
							0.026		583.9	585.0	1.1	

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
238 (6084)	No sample						0.032	575.2	576.2	1.0
							0.021	588.8	591.4	2.6
240 (6062)	520.1	521.6	1.5	0.043	< 0.1	1.8	0.038	512.7	513.7	1.0
	521.6	523.4	1.8	0.050	< 0.1	1.9	0.023	518.5	519.3	0.8
	525.4	525.7	0.3	0.029e	< 0.1	Undet	0.11	521.3	524.0	0.7
	528.6	529.5	0.9	0.026	0.12	2.7	0.085	526.0	526.8	0.8
	550.0	550.3	0.3	0.025e	< 0.1	Undet	0.068	527.5	528.5	1.0
	552.7	553.0	0.3	0.031e	0.2	Undet	0.064	528.8	529.9	1.1
							0.024	534.7	535.7	1.0
							0.10	535.7	537.0	1.3
							0.065	550.5	551.2	0.7
							0.026	551.2	552.3	1.1
							0.050	553.2	554.1	0.9
							0.021	554.4	555.4	1.0
							0.025	555.9	556.6	0.7
243 (6094)	589.0	589.5	0.5	0.044	0.78	4.8	0.14	586.3	587.2	0.9
	589.5	589.7	0.2	0.027e	0.24	Undet	0.063	587.2	587.7	0.5

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
244 (6058)	No sample						0.027	523.0	524.1	1.1
							0.033	564.3	565.4	1.1
245 (6097)	558.2	559.0	0.8	0.033	0.15	1.4	0.36	556.5	557.3	0.8
	559.0	559.3	0.3	0.23	1.76	0.1				
	559.3	559.4	0.1	0.14	0.34	0.2	0.097	574.9	576.6	1.7
	559.4	559.7	0.3	0.08	1.47	0.1				
	578.4	579.0	0.6	0.044	0.17	13.0	0.029	591.7	592.7	1.0
247 (6120)	548.9	549.2	0.3	0.020e	0.24	Undet	0.022	542.6	544.3	1.7
	549.8	550.1	0.3	0.029e	0.18	Undet				
248 (6103)	604.5	605.3	0.8	0.79	4.94	0.3	0.60	597.8	598.5	0.7
							0.084	598.5	599.2	0.7
							0.35	599.2	600.0	0.8
							0.022	600.4	601.2	0.8
249 (6114)	557.8	558.1	0.3	0.033e	< 0.1	Undet	0.022	542.0	542.9	0.9
	569.3	569.6	0.3	0.023e	< 0.1	Undet	0.047	552.3	552.9	0.6
							0.064	556.3	557.1	0.8
							0.041	562.0	563.5	1.5
							0.033	567.3	568.9	1.6
							0.024	607.0	607.9	0.9

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
255 (6131)	546.2	547.1	0.9	0.046	0.52	1.4	0.026	540.9	542.0	1.1
	547.1	548.1	1.0	0.032	0.89	1.2				
	548.1	549.0	0.9	0.025	0.58	1.1	0.17	544.4	545.3	0.9
	549.0	549.3	0.3	< 0.020	0.33	0.4	0.032	545.3	545.8	0.5
							0.11	545.8	546.6	0.8
	550.3	550.5	0.2	0.032	0.11	< 0.1				
	556.9	557.2	0.3	0.065	< 0.1	2.0	0.065	547.3	548.1	0.8
							0.021	557.6	558.6	1.0
	584.6	584.9	0.3	0.038	0.16	2.3				
							0.033	591.3	592.3	1.0
	593.5	594.2	0.7	< 0.020e	0.14	Undet				
	594.2	594.5	0.3	0.023e	0.92	0.6				
	594.5	595.0	0.5	< 0.020e	0.95	0.7				
256 (6129)	545.8	546.7	0.9	0.032e	0.56	0.3	0.030	508.5	509.6	1.1
	546.7	547.8	1.1	< 0.020e	0.42	Undet				
	547.8	548.1	0.3	1.48	28.75	0.3	0.023	518.8	520.0	0.2
	548.1	548.4	0.3	13.92	29.07	0.7				
	548.4	549.3	0.9	4.95	61.13	0.2	4.1	545.6	547.3	1.7
	549.3	549.5	0.2	4.57	20.88	0.2				
	549.5	549.8	0.3	0.63	2.72	0.4	0.24	590.9	592.4	1.5
	549.8	550.1	0.3	1.32	3.72	0.4	0.12	592.4	593.1	0.7
	550.1	550.4	0.3	0.60	3.18	0.3	0.50	593.1	594.3	1.2
	550.4	550.7	0.3	0.075	0.82	0.2	0.056	594.3	594.9	0.6
	550.7	551.0	0.3	0.16	0.33	0.2	0.15	594.9	595.8	0.9
	551.0	551.6	0.6	0.064	0.84	0.6				
							1.2	596.8	598.1	1.3
	552.2	552.5	0.3	0.032e	0.18	Undet	0.17	598.1	600.0	1.9
							2.4	600.0	601.1	1.1
	554.1	554.4	0.3	0.032e	0.18	Undet	0.70	601.1	601.9	0.8

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
250 (6113)	551.4	551.8	0.4	0.064	< 0.1	Undet	0.052	550.5	551.5	1.0
	589.7	590.0	0.3	0.023	< 0.1	Undet	0.021	559.4	560.7	1.3
	591.0	591.3	0.3	0.68	4.15	2.7	0.024	563.2	564.3	1.1
	591.3	591.7	0.4	0.19	5.73	0.4				
	591.7	592.3	0.6	0.034e	0.35	Undet	0.70	590.2	591.0	0.8
252 (6121)	560.6	560.9	0.3	0.060	0.23	5.0	0.021	550.0	550.8	0.8
							0.041	558.7	559.8	1.1
253A (6122)	599.2	599.8	0.6	0.045	0.63	1.7	0.023	542.9	543.8	0.9
	601.7	602.5	0.8	0.027e	< 0.1	Undet	0.078	593.5	594.2	0.7
							0.071	598.7	599.4	0.7
							0.048	601.1	601.9	0.8
254 (6135)	548.1	548.4	0.3	0.028e	0.19	Undet	0.027	543.4	545.0	1.6
							0.22	545.0	546.5	1.5
	548.7	549.6	0.9	0.043	0.35	0.4	0.10	546.5	547.6	1.1
	549.6	549.9	0.3	0.16	0.56	1.9	1.2	547.6	548.6	1.0
	549.9	550.1	0.2	0.11	0.30	2.5	0.54	548.6	549.6	1.0
	550.1	550.4	0.3	0.076	4.12	0.2				
	550.4	551.0	0.6	0.11	0.76	1.4				
	551.0	551.3	0.3	0.17	0.96	0.2				
	552.2	553.0	0.8	0.72	4.65	0.3				
	553.0	553.6	0.6	0.33	3.23	0.2				
	553.6	553.8	0.2	0.17	3.08	0.2				
	553.8	554.4	0.6	0.041	13.05	0.3				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
256--Continued	593.2	593.5	0.3	0.061	0.66	0.4				
	593.5	594.0	0.5	0.22	0.92	0.2				
	594.0	594.9	0.9	0.19	1.77	0.2				
	594.9	595.0	0.1	0.76	0.63	0.6				
	595.0	595.3	0.3	1.04	26.29	0.3				
	595.3	595.6	0.3	0.092	1.44	0.7				
	595.6	596.8	1.2	0.39	2.20	0.3				
	596.8	596.9	0.1	0.23	2.53	0.7				
	596.9	598.4	1.5	0.048	0.43	1.4				
	598.7	599.2	0.5	0.041	0.47	3.6				
	599.2	599.8	0.6	0.89	3.27	1.4				
	599.8	600.0	0.2	0.45	2.05	7.0				
	600.0	600.6	0.6	0.61	3.62	1.1				
	600.6	600.9	0.3	0.16	2.08	0.7				
	600.9	601.2	0.3	0.064	1.32	0.7				
	601.2	601.5	0.3	0.11	2.96	0.3				
	601.5	602.2	0.7	1.14	6.24	1.4				
	602.2	602.4	0.2	1.15	2.61	3.3				
	602.4	603.3	0.9	0.46	0.73	8.8				
	603.3	605.0	1.7	0.029	0.14	29.2				
257A (6093)	593.7	594.2	0.5	< 0.020e	0.66	1.4	0.025	591.9	592.6	0.7
258 (6117)	No sample						0.090	566.3	567.1	0.8
259 (6124)	580.0	580.6	0.6	0.031e	0.11	Undet	0.077	578.3	579.0	0.7

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
260 (6121)	526.5	527.1	0.6	0.034e	0.31	Undet	0.041	520.6	522.4	1.8
	539.7	540.1	0.4	0.023e	0.74	< 0.1	0.53	535.8	536.5	0.7
	540.1	540.4	0.3	0.051	1.03	< 0.1				
	540.4	540.7	0.3	0.80	2.99	< 0.1	0.020	541.6	543.7	2.1
	540.7	541.3	0.6	0.086	0.43	0.2				
	541.3	542.8	1.5	0.028e	< 0.1	Undet	0.054	545.5	546.5	1.0
	584.6	584.7	0.1	< 0.020e	2.76	< 0.1	0.046	550.5	551.7	1.2
	597.0	597.7	0.7	< 0.020e	0.57	0.9	0.045	580.2	581.3	1.1
	597.7	598.7	1.0	< 0.020e	0.27	Undet				
							0.025	588.2	590.6	2.4
	603.2	604.4	1.2	0.052	0.66	0.6				
	604.4	604.7	0.3	< 0.020e	1.19	0.9	0.021	591.5	593.2	1.7
	604.7	606.9	2.2	0.052	1.10	0.8				
							0.11	598.3	599.8	1.5
							0.11	600.2	601.5	1.3
261 (6124)	531.2	531.8	0.6	0.024e	0.12	Undet	0.022	526.4	527.3	0.9
	535.3	535.6	0.3	0.044	0.34	0.3	0.35	532.5	533.8	1.3
	535.6	536.2	0.6	0.11	0.81	0.1	0.13	533.8	534.3	0.5
	536.2	536.5	0.3	0.11	0.81	0.2	0.44	534.3	535.3	1.0
	536.5	537.1	0.6	0.41	2.70	0.2	0.055	535.3	537.1	1.8
	537.1	538.5	1.4	0.24	0.69	0.2				
	538.5	538.9	0.4	0.54	3.04	0.2	0.062	538.2	539.2	1.0
	538.9	539.9	1.0	0.098	1.59	0.4	0.024	539.2	540.2	1.0
	539.9	541.1	1.2	0.060	0.17	1.0	0.066	540.2	541.1	0.9
							0.10	541.1	542.3	1.2
	542.2	542.6	0.4	0.057	1.62	0.2	0.026	542.3	544.2	1.9

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
261--Continued	542.9	543.2	0.3	0.030e	0.17	Undet	0.059	582.5	583.6	1.1
	544.1	544.6	0.5	0.026e	< 0.1	Undet				
	587.6	588.4	0.8	0.19	2.03	0.2				
262 (6133)	596.4	597.9	1.5	0.029e	2.43	0.5	0.050	595.4	596.5	1.1
	597.9	599.3	1.4	0.027	0.49	0.8				
	599.3	599.8	0.5	0.24	1.22	1.5	0.55	597.8	598.9	1.1
	599.8	600.1	0.3	0.85	1.90	1.0	0.19	598.9	599.5	0.6
	600.1	600.5	0.4	0.27	1.23	0.7				
	600.5	600.8	0.3	0.10	0.31	1.2				
	600.8	601.1	0.3	0.13	2.66	0.7				
	601.1	601.7	0.6	0.034	0.12	1.4				
263 (6131)	548.0	548.6	0.6	0.060	0.20	2.2	3.4	545.8	546.6	0.8
	548.6	548.8	0.2	0.15	0.75	0.8				
	548.9	549.1	0.2	0.24	0.38	1.0	0.021	584.8	586.7	1.9
	549.1	549.4	0.3	0.28	2.06	0.6	0.13	586.7	587.6	0.9
	549.4	550.0	0.6	1.00	2.94	2.0	0.040	587.6	588.3	0.7
	550.0	550.1	0.1	0.38	2.17	0.5	1.4	588.3	589.0	0.7
	550.1	550.4	0.3	0.19	0.44	0.6	0.020	589.0	590.6	1.6
	550.4	551.3	0.9	0.036	0.18	1.0	0.031	590.6	591.6	1.0
	589.2	589.8	0.6	0.029e	0.15	Undet	0.030	592.5	594.0	1.5
	590.4	590.8	0.4	0.22	3.24	0.7				
	590.8	592.1	1.3	0.066	0.34	1.3				
	592.1	592.5	0.4	0.61	4.48	0.7				
	592.5	593.7	1.2	0.040	0.22	1.6				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
263--Continued	594.0	594.9	0.9	0.034e	0.16	Undet				
	596.7	597.0	0.3	0.024e	< 0.1	Undet				
264 (6135)	543.7	544.3	0.6	0.14	2.74	0.1	0.026	533.8	534.7	0.9
	544.3	544.8	0.5	0.20	1.10	0.3				
	544.8	546.3	1.5	0.038	0.24	0.4	0.35	538.0	539.4	1.4
							0.099	539.4	540.2	0.8
							0.020	584.3	585.1	0.8
265 (6137)	537.8	538.6	0.8	0.030	0.26	0.2	0.37	536.9	538.3	1.4
	538.6	539.0	0.4	0.041	0.64	< 0.1	0.023	538.3	539.7	1.4
	539.0	539.4	0.4	0.27	1.95	< 0.1	0.068	539.7	540.7	1.0
	539.4	539.7	0.3	0.13	0.28	0.8				
	539.7	539.8	0.1	0.089	0.31	0.1	0.73	580.0	580.9	0.9
	539.8	540.2	0.4	0.52	1.51	< 0.1				
	540.2	541.7	1.5	0.032	0.12	0.4				
	541.7	543.2	1.5	0.038	0.12	0.2				
	581.4	581.7	0.3	0.030e	0.17	Undet				
	582.6	582.9	0.3	0.58	5.17	1.8				
	582.9	583.2	0.3	0.17	3.80	1.4				
	583.2	583.5	0.3	0.040	3.67	1.0				
266 (6125)	543.4	543.7	0.3	0.023e	0.29	Undet	Barren			

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent ϵU_{308}	Depth in feet		Thickness (feet)
	From	To		U_{308}	V_{205}	CaCO_3		From	To	
Block A--Continued										
268	510.9	511.6	0.7	0.042	0.96	< 0.1	0.11	505.3	507.5	2.2
(6091)	511.6	511.9	0.3	0.060	2.23	< 0.1	0.068	507.5	509.0	1.5
	511.9	513.4	1.5	0.056	0.45	< 0.1				
	513.4	514.3	0.9	0.031e	0.15	Undet	0.19	511.1	512.0	0.9
	514.6	514.9	0.3	0.028e	0.23	Undet	0.10	555.4	556.5	1.1
	516.4	517.9	1.5	0.038	0.53	< 0.1				
270	No sample						0.039	517.8	519.0	1.2
(6100)										
271	509.9	511.1	1.2	0.034e	0.29	Undet	0.027	507.0	508.6	1.6
(6097)	511.1	512.0	0.9	0.033	0.23	0.7				
	513.2	513.5	0.3	0.064	0.96	< 0.1	0.057	509.6	511.2	1.6
	513.5	513.8	0.3	0.26	2.42	< 0.1	0.41	513.5	514.5	1.0
	513.9	514.4	0.5	0.23	0.78	< 0.1	0.038	514.5	517.7	3.2
	514.4	514.7	0.3	0.12	0.70	< 0.1	0.30	517.7	519.5	1.8
	514.7	515.0	0.3	0.11	0.58	< 0.1				
	515.0	515.6	0.6	0.024e	0.62	< 0.1				
	515.6	516.0	0.4	0.034	0.55	< 0.1				
	516.0	516.3	0.3	0.060	1.71	< 0.1				
	516.3	517.6	1.3	0.17	2.49	< 0.1				
	517.6	518.2	0.6	0.30	2.14	< 0.1				
	518.2	518.3	0.1	0.087	3.74	< 0.1				
	518.3	518.8	0.5	0.20	1.64	< 0.1				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU_3O_8	Depth in feet		Thickness (feet)
	From	To		U_3O_8	V_2O_5	CaCO_3		From	To	
Block A--Continued										
272 (6112)	526.6	526.9	0.3	0.025e	0.15	Undet	0.021	521.4	522.1	0.7
	527.2	528.0	0.8	0.034e	0.20	Undet	0.037	523.1	524.1	1.0
	528.0	528.6	0.6	0.061	0.33	< 0.1	0.23	524.1	525.8	1.7
	528.6	528.9	0.3	0.098	0.47	< 0.1	0.035	525.8	526.6	0.8
	528.9	530.0	1.1	0.11	0.64	< 0.1	0.54	526.6	527.3	0.7
	530.0	530.2	0.2	0.83	2.62	< 0.1				
	530.2	530.5	0.3	0.090	0.63	< 0.1	0.58	557.7	558.5	0.8
	531.2	531.5	0.3	0.032	0.34	< 0.1				
	531.5	531.7	0.2	0.46	0.72	< 0.1				
	531.7	532.0	0.3	0.44	2.13	< 0.1				
	532.0	532.1	0.1	0.12	2.64	< 0.1				
	562.7	563.0	0.3	0.029e	0.91	0.5				
	563.0	563.3	0.3	0.63	8.82	0.2				
273 (6109)	554.0	554.2	0.2	0.076	< 0.1	0.8	0.046	550.9	552.1	1.2
	557.7	558.0	0.3	0.042	< 0.1	4.8	0.041	555.3	556.7	1.4
	596.0	596.3	0.3	0.028	1.55	0.2	0.67	593.5	594.4	0.9
	596.3	596.6	0.3	0.19	2.11	0.7				
	596.6	596.9	0.3	1.4	2.66	0.2	0.15	595.0	595.9	0.9
	596.9	597.0	0.1	1.09	2.73	0.1				
	597.0	597.6	0.6	0.058	0.36	1.1				
	597.6	598.8	1.2	0.046	0.20	3.2				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
274 (6106)	555.0	555.3	0.3	0.064	< 0.1	< 0.1	0.032	552.5	553.5	1.0
	600.4	601.1	0.7	0.090	3.02	0.7	0.029	554.3	555.3	1.0
	601.1	601.7	0.6	0.24	3.75	1.1				
	601.7	602.4	0.7	0.50	2.53	2.5	0.020	588.5	589.6	1.1
	602.4	603.2	0.8	0.18	0.96	0.6				
	603.2	603.8	0.6	0.12	0.99	2.9	0.062	597.3	598.3	1.0
	603.8	604.4	0.6	0.080	0.48	3.2	0.49	598.3	599.5	1.2
	604.4	604.7	0.3	0.28	2.69	0.4	0.064	599.5	600.8	1.3
	604.7	605.0	0.3	0.13	1.13	2.9	0.32	600.8	601.9	1.1
	605.0	605.4	0.4	0.10	2.53	< 0.1				
	605.4	605.7	0.3	0.062	3.15	< 0.1				
	605.7	605.8	0.1	< 0.020e	0.98	0.1				
275 (6066)	522.9	523.2	0.3	0.032e	0.20	Undet	0.21	521.3	522.1	0.8
							0.055	522.1	522.4	0.3
	523.5	524.1	0.6	0.030e	0.10	Undet	0.25	522.4	523.4	1.0
							0.072	523.4	525.3	0.9
	524.4	524.6	0.2	0.038	0.21	0.2	1.5	525.3	526.7	1.4
	524.6	524.8	0.2	0.096	0.31	< 0.1	0.025	526.7	528.1	1.4
	524.8	525.3	0.5	0.15	1.49	< 0.1	0.48	528.1	529.0	0.9
	525.3	526.2	0.9	0.12	1.21	< 0.1				
	526.2	527.1	0.9	0.17	1.32	< 0.1	0.14	534.8	535.9	1.1
	527.1	527.4	0.3	0.053	0.15	< 0.1				
	527.4	528.0	0.6	0.10	0.35	< 0.1	0.27	542.3	543.2	0.9
	528.0	529.2	1.2	0.32	0.81	< 0.1				
	529.2	529.5	0.3	2.19	2.69	0.2	0.08	555.6	556.6	1.0
	529.5	530.0	0.5	0.55	1.43	< 0.1				
	530.0	530.6	0.6	0.65	1.06	0.2				
	530.6	530.9	0.3	0.30	1.00	< 0.1				
	530.9	531.2	0.3	0.070	0.33	0.3				
	531.2	531.5	0.3	0.051	0.33	0.6				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₂ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
275--Continued	531.5	532.0	0.5	0.054	0.50	0.7				
	532.0	532.2	0.2	0.11	1.50	0.4				
	532.2	532.3	0.1	0.066	0.55	0.3				
	532.3	532.9	0.6	0.41	2.44	0.2				
	532.9	533.2	0.3	0.024	0.18	1.4				
	537.6	539.1	1.5	0.032e	0.13	2.7				
	539.7	540.3	0.6	0.032e	0.13	Undet				
	546.3	546.7	0.4	0.42	5.03	0.4				
	546.7	547.3	0.6	0.11	0.88	4.0				
	547.3	547.6	0.3	0.021e	1.26	0.1				
	547.6	547.9	0.3	0.020e	1.66	0.1				
	547.9	548.3	0.4	< 0.020e	1.18	1.1				
	551.9	552.8	0.9	< 0.020e	0.82	0.8				
	559.7	560.1	0.4	0.053	1.18	1.8				
	560.4	560.7	0.3	0.020e	0.10	Undet				
277	538.7	539.6	0.9	0.081	< 0.1	2.5	0.039	535.6	537.3	1.7
(6069)	539.9	540.0	0.1	0.031	< 0.1	5.6	0.18	539.0	539.8	0.8
	540.0	540.5	0.5	0.079	< 0.1	0.2				
	540.5	542.0	1.5	0.058	< 0.1	1.3	0.020	540.7	541.7	1.0
	542.3	542.6	0.3	0.025e	0.32	Undet	0.46	542.5	543.7	1.2
							0.19	543.7	544.4	0.7

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
277--Continued	542.9	543.2	0.3	0.066	1.09	< 0.1				
	543.2	544.1	0.9	0.52	4.87	< 0.1	0.042	545.1	545.7	0.6
	544.1	544.7	0.6	0.23	2.47	< 0.1				
	544.7	544.9	0.2	0.094	4.49	< 0.1	0.038	548.8	550.0	1.2
	544.9	545.5	0.6	0.052	0.90	0.9				
	545.5	546.4	0.9	0.039	0.34	0.5	0.044	552.0	554.3	2.3
	549.6	549.9	0.3	0.029e	0.34	Undet	0.15	555.0	555.6	0.6
	549.9	550.5	0.6	0.025e	0.95	0.3				
	550.5	550.7	0.2	0.024e	0.44	Undet	0.12	556.3	557.1	0.8
	550.7	551.3	0.6	< 0.020e	0.53	1.8				
	551.3	552.4	1.1	0.061	1.04	0.9	0.032	558.4	559.6	1.2
	552.4	552.9	0.5	0.053	1.43	0.4				
	552.9	553.5	0.6	0.054	0.78	0.4	0.19	562.0	562.7	0.7
	553.5	553.8	0.3	0.036	0.85	0.3				
	553.8	554.0	0.2	0.025e	0.34	Undet	0.068	567.7	568.7	1.0
	554.0	554.8	0.8	0.13	0.46	1.4				
	554.8	555.4	0.6	0.063	0.61	2.3	0.024	576.7	578.0	1.3
	555.4	555.7	0.3	< 0.020e	0.46	Undet				
	555.7	556.0	0.3	0.027e	0.32	Undet				
	556.0	556.3	0.3	0.20	0.32	0.4				
	557.2	557.8	0.6	0.15	< 0.1	1.4				
	558.7	558.8	0.1	0.032e	< 0.1	Undet				
	558.8	560.0	1.2	0.17	0.12	1.5				
	560.0	560.3	0.3	0.17	0.17	1.1				
	563.3	563.6	0.3	0.10	< 0.1	3.6				
	563.6	563.9	0.3	0.15	< 0.1	9.2				
	570.6	570.9	0.3	0.062	0.22	1.1				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
277--Continued	571.2	572.2	1.0	0.030e	< 0.1	Undet				
	572.2	573.1	0.9	0.025e	< 0.1	Undet				
278 (6100)	561.1	562.8	1.7	0.037	0.25	0.8	0.074	562.8	564.0	1.2
	562.8	563.4	0.6	0.051	0.44	0.6				
	563.4	563.6	0.2	< 0.020e	0.49	Undet				
280 (6090)	No sample						0.18	539.3	540.0	0.7
281 (6075)	No sample						0.026	573.3	574.4	1.1
							0.021	580.2	580.8	0.6
286 (6099)	No sample						0.044	542.8	543.9	1.1
289 (6120)	532.0	532.3	0.3	0.024e	0.26	Undet	1.4	526.8	527.9	1.1
							0.13	527.9	529.5	1.6
	532.4	532.7	0.3	0.089	1.36	< 0.1	0.40	529.5	531.7	2.2
	532.7	533.0	0.3	0.25	1.57	< 0.1	0.92	531.7	533.0	1.3
	533.0	533.2	0.2	0.071	0.96	< 0.1				
	533.2	534.4	1.2	0.51	5.07	0.2				
	534.4	534.5	0.1	0.41	3.35	< 0.1				
	534.5	535.8	1.3	0.41	1.36	0.1				
	535.8	536.2	0.4	0.54	2.67	0.1				
	536.2	537.1	0.9	0.36	3.30	0.3				
	537.1	537.9	0.8	0.71	2.87	0.3				
290 (6119)	562.6	562.7	0.1	< 0.020e	0.25	Undet	0.022	571.0	571.7	0.7
	563.0	563.4	0.4	< 0.020e	0.18	Undet				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
291 (6118)	564.4	564.8	0.4	< 0.020e	0.13	Undet	Barren			
293 (6124)	No sample						0.039	588.4	590.1	1.7
							0.037	591.4	592.6	1.2
294 (6124)	563.8	564.4	0.6	0.027e	< 0.1	Undet	0.032	557.0	557.8	0.8
296 (6121)	529.9	530.4	0.5	0.11	0.65	0.1	0.021	517.6	518.4	0.8
	530.4	531.7	0.3	0.050	< 0.1	< 0.1				
	531.7	532.0	0.3	0.13	0.22	< 0.1	0.17	524.2	525.0	0.8
	532.0	532.4	0.4	0.13	0.13	< 0.1	0.020	525.0	526.0	1.0
							0.13	526.0	526.9	0.9
	532.6	533.5	0.9	0.52	1.16	< 0.1				
	533.5	534.2	0.7	0.21	0.73	< 0.1	0.32	527.5	529.8	2.3
	534.2	534.5	0.3	1.24	2.57	0.1	0.080	529.8	530.8	1.0
	534.5	534.8	0.3	0.15	0.73	< 0.1	0.21	530.8	531.7	0.9
	534.8	535.1	0.3	0.055	0.53	< 0.1				
	535.1	535.4	0.3	0.083	0.19	< 0.1	0.20	532.8	533.6	0.8
	535.4	535.7	0.3	0.13	0.29	< 0.1	0.085	533.6	534.3	0.7
	535.7	536.0	0.3	0.093	0.70	< 0.1	0.25	534.3	539.2	4.9
	536.0	536.1	0.1	0.045	0.97	< 0.1				
	536.1	536.4	0.3	0.057	1.46	< 0.1	0.037	550.0	551.2	1.2
	536.4	536.7	0.3	0.18	1.09	< 0.1				
	536.7	536.8	0.1	< 0.020e	0.34	Undet				
	536.8	537.5	0.7	< 0.020e	0.32	Undet				
	537.5	537.8	0.3	0.030e	0.22	Undet				
	537.8	538.1	0.3	0.14	1.31	< 0.1				
	538.1	539.6	1.5	0.19	1.43	< 0.1				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
296--Continued	539.6	540.5	0.9	0.35	1.92	0.2				
	540.5	540.8	0.3	0.20	1.02	< 0.1				
	540.8	542.3	1.5	0.38	2.28	0.2				
	542.3	543.6	1.3	0.56	2.18	1.1				
	543.6	544.4	0.8	0.49	2.01	3.3				
	544.4	544.5	0.1	0.42	3.20	2.8				
301	549.6	550.0	0.4	0.094	0.36	0.2	0.15	543.1	543.8	0.7
(6132)	550.0	551.5	1.5	0.064	0.32	< 0.1				
	551.5	552.1	0.6	0.075	0.44	< 0.1	0.066	544.4	545.3	0.9
	552.1	552.4	0.3	0.12	0.58	< 0.1				
	552.4	552.5	0.1	0.25	1.87	< 0.1	0.44	546.1	547.4	1.3
	552.5	553.0	0.5	0.33	3.35	< 0.1	0.033	547.4	549.1	1.7
	553.0	553.3	0.3	1.75	5.26	0.3				
	553.3	554.2	0.9	0.16	0.44	< 0.1	0.13	549.8	550.7	0.9
	554.2	555.3	1.1	0.065	0.39	< 0.1				
	555.3	555.8	0.5	0.081	0.36	< 0.1	0.23	551.6	552.7	1.1
	555.8	556.1	0.3	0.12	0.29	< 0.1				
	556.1	556.3	0.2	0.12	0.22	< 0.1	0.17	554.6	555.5	0.9
	556.3	556.6	0.3	0.030e	0.24	Undet				
	556.6	556.9	0.3	0.027e	0.56	< 0.1				
	556.9	557.0	0.1	0.039	1.19	< 0.1				
	557.0	557.5	0.5	0.22	2.52	< 0.1				
	557.5	557.8	0.3	0.30	1.12	< 0.1				
	557.8	558.1	0.3	0.047	0.58	< 0.1				
	559.8	560.0	0.2	0.086	1.33	< 0.1				
	560.0	561.9	1.9	0.073	0.63	< 0.1				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
305 (6127)	594.5	594.8	0.3	0.031e	1.28	1.2	Not probed			
	594.8	595.1	0.3	0.25	0.65	1.4				
	595.1	595.4	0.3	0.032e	0.73	1.2				
	595.4	595.5	0.1	0.027e	0.97	1.1				
	595.5	595.9	0.4	0.29	1.26	1.4				
	595.9	596.1	0.2	0.13	3.30	0.4				
	596.1	596.4	0.3	0.13	0.82	2.5				
	596.4	596.8	0.4	0.082	1.79	1.5				
	597.1	598.6	1.5	0.034e	0.51	3.2				
	601.1	602.2	1.1	0.030e	1.02	2.6				
306 (6123)	602.2	602.5	0.3	< 0.020e	0.46	Undet				
	548.1	548.5	0.4	< 0.020e	0.85	0.1	0.041	541.7	543.1	1.4
	549.1	550.6	1.5	0.027e	0.11	Undet	0.033	543.8	545.0	1.2
	551.5	552.1	0.6	0.078	< 0.1	0.7	0.55	584.5	585.5	1.0
	590.6	591.1	0.5	0.037	0.99	9.2	0.032	595.2	596.3	1.1
	591.1	591.3	0.2	0.88	14.24	0.6	0.041	596.3	597.6	1.3
	591.3	591.6	0.3	1.23	0.85	9.0				
	591.6	591.9	0.3	0.036	< 0.1	9.0	0.062	600.3	601.9	1.6
							0.26	601.9	603.7	1.8
	601.0	602.5	1.5	0.032	< 0.1	0.8				
	602.5	604.0	1.5	0.057	0.15	3.1	0.37	604.6	607.1	2.5
	604.0	604.6	0.6	0.040	0.51	1.4	0.21	607.1	608.0	0.9
	604.9	605.2	0.3	0.024e	0.58	1.6				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block A--Continued										
306--Continued	605.8	607.0	1.2	0.052	0.61	4.3				
	607.0	607.3	0.3	0.11	0.36	7.3				
	607.3	607.9	0.6	0.054	0.46	5.7				
	607.9	608.8	0.9	0.29	0.75	5.1				
	608.8	609.1	0.3	0.13	0.24	6.6				
	609.1	610.0	0.9	0.055	0.17	5.6				
	610.0	610.9	0.9	0.19	0.32	5.6				
	610.9	612.1	1.2	0.55	0.99	1.8				
	612.1	612.9	0.8	0.58	1.55	4.0				
	612.9	613.9	1.0	0.34	0.68	4.7				
	613.9	614.8	0.9	0.052	< 0.1	5.6				
309 (6097)	557.1	557.4	0.3	0.025e	< 0.1	Undet	0.035	614.9	615.8	0.9
315 (6062)	535.3	535.6	0.3	0.033e	< 0.1	Undet	0.033	533.5	534.6	1.1
	542.7	543.0	0.3	0.025e	< 0.1	Undet	0.026	539.6	540.6	1.0
	544.3	544.6	0.3	0.021e	< 0.1	Undet	0.026	566.2	567.3	1.1
318 (6052)	557.7	558.3	0.6	0.029e	< 0.1	Undet	0.035	554.8	556.3	1.5
							0.023	566.7	567.3	0.6
321 (6056)	551.1	552.0	0.9	0.21	1.79	1.1	0.43	548.8	549.8	1.0
	552.0	552.2	0.2	0.18	1.67	0.8				
357 (6105)	545.9	546.2	0.3	0.030e	< 0.1	Undet	0.030	534.8	536.1	1.3

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block B--Public land										
145 (5970)	545.5	545.8	0.3	0.027e	< 0.1	Undet	1.0	542.8	544.0	1.2
	545.8	546.3	0.5	0.30	0.87	0.5	0.041	544.0	545.2	1.2
	546.3	546.6	0.3	1.60	3.55	0.9	0.38	545.2	546.1	0.9
	546.6	546.9	0.3	2.13	6.02	0.6				
	546.9	547.2	0.3	1.17	5.04	0.4				
	547.2	547.6	0.4	< 0.020e	0.41	Undet				
186 (5968)	542.4	542.8	0.4	0.034e	< 0.1	Undet	0.025	538.5	539.4	0.9
190 (5952)	573.4	574.0	0.6	0.027e	< 0.1	Undet	0.11	575.7	576.8	1.1
	574.0	574.3	0.3	0.068	< 0.1	5.7				
191 (5969)	557.1	558.0	0.9	0.039	< 0.1	6.0	0.097	652.8	653.8	1.0
234 (5966)	556.4	556.7	0.3	0.085	< 0.1	7.0	0.032	552.0	552.8	0.8
							0.051	554.6	555.8	1.2
							0.038	595.8	597.4	1.6
							0.034	598.3	599.4	1.1
239 (5959)	538.9	539.0	0.1	< 0.020e	0.15	Undet	0.031	541.5	542.9	1.4
	541.2	541.8	0.6	0.050	0.12	5.0	0.024	542.9	543.9	1.0
241 (5973)	549.0	549.3	0.3	0.084	1.34	8.2	0.18	544.9	545.7	0.8
	549.3	549.6	0.3	0.028e	0.17	Undet				
	549.6	549.9	0.3	0.075	0.22	8.0				
	549.9	550.3	0.4	< 0.020e	0.12	Undet				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block C--Public land										
76 (5810)	602.2	602.5	0.3	0.020e	< 0.1	Undet	0.25	604.0	604.6	0.6
	602.5	602.7	0.2	0.40	< 0.1	0.3				
	602.7	603.0	0.3	0.049	< 0.1	2.2	0.054	607.7	608.8	1.1
	606.5	606.8	0.3	0.041	< 0.1	3.4				
	606.8	607.0	0.2	0.47	< 0.1	4.4				
	607.0	607.3	0.3	0.053	< 0.1	3.4				
192 (5825)	677.1	677.7	0.6	0.029e	0.10	Undet	0.045	673.4	674.7	1.3
	678.9	680.1	1.2	0.030	0.16	5.2	0.097	675.6	676.7	1.1
							0.021	676.7	677.4	0.7
193 (5814)	607.8	608.1	0.3	0.047	< 0.1	4.0	0.037	611.2	612.4	1.2
	664.2	664.5	0.3	0.033	0.24	1.1	0.12	666.8	667.7	0.9
	664.5	665.0	0.5	0.021	0.60	0.2				
							0.038	700.6	703.0	2.4
	699.6	700.2	0.6	0.022	0.29	2.8	0.021	706.2	706.7	0.5
194 (5830)	711.7	713.0	1.3	< 0.020e	0.69	0.2	0.052	707.4	708.4	1.0
	713.0	713.6	0.6	0.028e	1.27	0.3				
	713.6	714.1	0.5	0.027e	0.76	0.5	0.10	709.5	710.9	1.4
	714.1	714.4	0.3	0.027e	0.66	0.5	0.28	710.9	712.4	1.5
	714.4	714.7	0.3	0.031e	0.66	0.7				
	714.7	715.0	0.3	0.14	0.96	0.7	0.023	714.9	716.3	1.4
	715.0	715.3	0.3	0.15	0.21	2.1				
	715.3	715.7	0.4	0.13	0.71	3.2				
	715.7	716.0	0.3	0.15	0.50	4.4				
	716.0	716.6	0.6	0.26	1.34	4.1				
	716.6	716.7	0.1	0.17	0.47	5.4				
	716.7	717.0	0.3	0.075	0.58	7.3				

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block C--Public land--Continued										
297 (5832)	No sample						0.042	693.1	694.7	1.6
298 (5822)	No sample						0.020	613.4	614.8	1.4
Block D--Public land										
216 (5854)	641.7	642.9	1.2	0.053	< 0.1	4.6	Not probed			
	642.9	643.2	0.3	0.11	< 0.1	0.5				
373 (5842)	650.2	650.5	0.3	0.032e	< 0.1	Undet	0.042	646.4	647.1	0.7
374 (5859)	No sample						0.029	650.6	651.9	1.3
375 (5857)	617.3	617.4	0.1	1.53	2.13	0.5	0.39	613.8	614.6	0.8
376 (5841)	628.8	629.1	0.3	0.022e	< 0.1	Undet	0.024	627.8	629.7	1.9
Block E--Public land										
336 (5956)*	685.7	686.9	1.2	0.070	< 0.1	3.6	0.16	685.1	685.8	0.7
337 (5966)	597.8	598.1	0.3	0.022e	< 0.1	Undet	Barren			
381 (5949)*	659.7	660.3	0.6	0.069	< 0.1	1.4	0.044	655.8	657.6	1.8
	677.8	678.1	0.3	0.14	< 0.1	2.3	0.051	674.5	675.7	1.2

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Block E--Public land--Continued										
383 (5947)*	642.7	643.0	0.3	0.030e	Undet	Undet	Barren			
	643.3	643.6	0.3	0.020e	Undet	Undet				
384 (5962)*	636.1	636.3	0.2	0.091	< 0.1	7.0	0.020	631.1	633.5	2.4
	636.3	636.6	0.3	0.034e	< 0.1	Undet	0.19	635.5	636.3	0.8
							0.021	678.0	679.6	1.6
392 (5970)*	688.6	690.4	1.8	0.029e	Undet	Undet	Barren			
394 (5941)*	632.8	634.0	1.2	0.034	0.12	2.5	0.075	630.0	631.4	1.4
Other holes--Public land										
5 (6014)	No sample						0.054	566.4	566.9	0.5
8 (6022)	Barren						0.026	561.2	562.2	1.0
							0.027	576.7	578.0	1.3
							0.033	578.0	579.6	1.6
19 (5992)	567.4	567.6	0.2	0.21	< 0.1	1.4	0.072	566.3	567.1	0.8
22 (6056)	599.8	600.1	0.3	0.11	0.18	0.5	0.060	596.3	597.2	0.9
							0.042	606.3	607.0	0.7

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Other holes--Public land--Continued										
25 (6033)	631.3	631.4	0.1	0.19	0.64	0.7	Barren			
	631.9	632.1	0.2	< 0.020e	0.13	Undet				
29 (6005)	588.3	589.3	1.0	0.025e	< 0.1	Undet	0.033	584.7	586.2	0.5
							0.053	587.1	587.9	0.8
							0.025	605.0	605.8	0.8
30 (6033)	No sample						0.11	585.3	586.0	0.7
34 (5955)	622.5	623.3	0.8	0.030e	< 0.1	Undet	0.080	621.8	622.6	0.8
	623.3	623.5	0.2	0.064	< 0.1	16.4				
	623.5	623.6	0.1	0.081	< 0.1	16.8				
36 (5934)	No sample						0.025	621.1	621.8	0.7
							0.025	623.6	624.5	0.9
37 (5926)	No sample						0.020	604.3	605.6	1.3
49 (5888)	617.7	618.2	0.5	0.17	1.67	1.1	0.032	613.2	614.6	1.4
66 (5830)*	No sample						0.023	586.8	587.7	0.9

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Other holes--Public land--Continued										
67 (6025)	577.8	578.3	0.5	0.029e	< 0.1	Undet	0.040	575.9	577.4	1.5
	585.9	586.4	0.5	0.028e	< 0.1	Undet	0.20	691.6	692.5	0.9
	692.2	692.4	0.2	0.025e	0.49	Undet				
	692.4	692.7	0.3	0.065	0.40	17.9				
	692.7	693.0	0.3	0.064	< 0.1	4.6				
70 (6041)	No sample						0.020	545.5	546.3	0.8
77 (6072)	No sample						0.020	604.5	605.5	1.0
							0.033	619.3	620.3	1.0
							0.034	626.6	627.3	0.7
81 (6000)	No sample						0.029	587.5	588.3	0.8
83 (6044)	No sample						0.025	566.2	566.9	0.7
86 (6004)	No sample						0.032	583.2	584.2	1.0
92 (5968)	623.4	623.7	0.3	0.12	< 0.1	7.2	0.040	619.0	620.3	1.3
97 (5973)	No sample						0.020	604.8	605.3	0.5

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Other holes--Public land--Continued										
99 (5810)*	670.7	670.9	0.2	< 0.020e	0.15	Undet	Barren			
	749.4	749.9	0.5	0.085	0.25	0.7				
	752.1	752.3	0.2	0.036	< 0.1	3.0				
110 (5913)	609.5	610.0	0.5	0.030e	< 0.1	Undet	0.025	604.5	605.6	1.1
	636.0	636.4	0.4	0.072	< 0.1	2.7	0.035	622.4	623.4	1.0
	637.7	638.1	0.4	0.029e	0.15	Undet	0.025	630.2	632.9	2.7
116 (5955)	636.1	636.3	0.2	0.16	0.48	0.3	0.028	621.6	622.9	1.3
							0.055	634.4	635.2	0.8
							0.020	635.2	635.7	0.5
140 (5660)*	702.6	703.2	0.6	< 0.020e	0.55	3.3	0.025	687.0	688.3	1.3
	703.2	703.4	0.2	0.043	0.40	0.5				
							0.27	689.0	690.2	1.2
	711.1	711.4	0.3	0.078	0.13	4.6				
	711.4	712.6	1.2	< 0.020e	0.16	Undet	0.025	692.6	693.7	1.1
195 (6060)*	No sample						0.029	575.6	577.1	1.5
200 (5830)*	No sample						0.12	620.4	621.3	0.9
							0.021	623.4	624.3	0.9

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Other holes--Public land--Continued										
202 (5860)*	569.0	569.2	0.2	0.028	0.22	0.2	0.024	562.6	564.3	1.7
	605.2	605.5	0.3	0.031e	0.10	0.1	0.037	599.4	600.6	1.2
204 (5933)	548.2	548.5	0.3	0.034	0.10	0.1	Barren			
207 (5852)	No sample						0.023	590.8	591.5	0.7
211 (5837)	641.1	642.0	0.9	0.027	< 0.1	11.7	0.093	622.7	623.6	0.9
	642.0	642.3	0.3	0.033e	< 0.1	Undet	0.033	637.9	639.4	1.5
316 (5965)	576.1	576.7	0.6	0.074	0.66	1.4	0.14	504.1	505.0	0.9
322 (5975)	614.2	614.8	0.6	0.024e	0.12	Undet	0.060	613.6	615.8	2.2
	615.2	615.5	0.3	0.039	0.15	0.3				
	615.5	616.4	0.9	0.094	< 0.1	3.4				
333 (5906)	No sample						0.023	616.7	617.6	0.9
349 (5976)	650.3	650.6	0.3	0.48	< 0.1	1.2	0.41	648.1	648.7	0.6
350 (5955)	615.3	615.6	0.3	0.030e	< 0.1	Undet	0.030	613.5	614.1	0.6

Table 3. Assay data, Atkinson Mesa area, Montrose County, Colorado--Continued

Hole No. and collar elev. (feet)	Assay data						Gamma-ray data			
	Depth in feet		Thickness (feet)	Percent			Percent eU ₃ O ₈	Depth in feet		Thickness (feet)
	From	To		U ₃ O ₈	V ₂ O ₅	CaCO ₃		From	To	
Other holes--Public land--Continued										
353 (6030)	No sample						0.023	617.0	618.1	1.1
356 (5970)	638.8	639.1	0.3	0.047	< 0.1	0.4	0.038	636.1	636.8	0.7
358 (5939)	631.8	631.9	0.1	0.034e	0.16	Undet	0.035	614.3	615.4	1.1
359 (5958)	No sample						0.028	612.4	613.1	0.7
360 (6029)	622.7	623.0	0.3	0.048	0.14	0.2	0.09	628.1	628.9	0.8
	632.3	632.6	0.3	0.030e	< 0.1	Undet	0.13	630.3	631.3	1.0
	632.9	633.2	0.3	0.049	0.10	2.0				
	634.8	636.0	1.2	0.054	0.12	1.9				
362 (6014)	622.0	622.3	0.3	0.064	0.50	1.8	0.056	620.4	621.2	0.8
365 (6019)	No sample						0.026	588.6	589.6	1.0
366 (6040)	No sample						0.026	585.7	586.4	0.7
369 (5882)	Barren						0.026	582.5	583.5	1.0