Office of Minerals Exploration
Building 53 Room 28

April 2, 1974

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6885 (Silver-Gold)
Charles H. Turner and
Anne Z. Turner
San Juan Mine
San Miguel County, Colorado

Transmitted herewith is a Report of Examination on the subject docket, recommending the preparation of a contract to complete some 300 feet of drifting to explore for ore on and along the San Juan vein, San Miguel County, Colorado.

Enclosed with the report is a revised application form requesting the increased costs needed for drifting, as well as new bank letters. A letter from the applicant indicating his ability to furnish his share of the money should a contract be offered him.

Two copies of an Indenture form, concerning the applicants doing business as Hamilton Resources Corporation is also enclosed for your perusal. Enclosed also is a rough draft of a proposed contract for your use in preparation of a contract, as well as maps for use in the contract.

I am informed that much of the snow in the immediate mine area has melted and that the Operator can get into the mine as soon as a contract can be prepared.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

cc: OME-6885
OME chron
Mr. Hasler

UNITED STATES

DEPARTMENT OF THE INTERIOR

ROGERS C. B. MORTON, SECRETARY

GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION

REPORT OF EXAMINATION

REGION III

CHARLES H. TURNER AND ANNE Z. TURNER

SAN JUAN MINE

SAN MIGUEL COUNTY, COLORADO

By

J. WILLIAM HASLER, GEOLOGIST

April 1974

REPORT OF EXAMINATION

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Figure 1. S. B. Kenrick and San Juan Claim map.

Figure 2. San Juan Mine, Matterhorn, Colorado.

Introduction and Summary

Mr. Charles H. Turner and Anne Z. Turner, d/b/a/ Hamilton Resources Corporation, P. O. Box 3224, HiMar Station, Boulder, Colorado 80303 applied to the Office of Minerals Exploration for financial assistance to explore for gold, silver, copper and lead on the San Juan vein, in the Trout Lake Mining District, San Miguel County, Colorado.

The application was referred to the field after the applicant had made at least one level of the San Juan mine workings accessible for inspection and an appraisal. The applicant originally proposed a limited diamond drilling program to explore the San Juan vein from the A tunnel level, however the results of an appraisal, a detailed study of the property and other mines in the district indicates that exploration by drifting would be more advantageous.

Field Examination made Mar 5, 6 & 7, 1974

The several mines in the district have produced from a few hundred or thousands of tons, to 100,000 or more tons having a total value of $4.55 million in gold, silver, copper, lead and zinc. Based upon the amount and value in tons mined and the fact that total mine workings totaled only some 30,000 feet of workings there is an indication that there should be considerable amounts of ore valued at greater than $45.00 per ton that could yet be discovered in these vein systems. There are two mills in the immediate vicinity of the San Juan Mine, one of which is presently operating, and the applicant has been offered a contract to supply ore to it. It is therefore recommended that a contract be prepared and executed to complete the exploration work herein outlined at the total estimated cost of $35,796.20.

Location and Accessibility

The San Juan Mine, located on the patented San Juan Lode, claim Survey 1167A and the S. B. Kenrick Lode claim Survey 2683 lies in Sections 4 and 5, Township 41, North, Range 9 West, N.M.P.M., Trout Lake Mining District, San Miguel County, Colorado. The San Juan Mine may be reached from Montrose, Colorado by travelling south on U. S. Highway 550 for twenty-six miles to Ridgeway, Colorado then westward on Colorado State Highway 62 for twenty-five miles to Placerville, Colorado, then southeastward on Colorado State Highway 145 for 13 miles to Three Mile Corner, or Society Turn, three miles west of Telluride, Colorado. Turn right, or southward on State Highway 145 for 10 miles. At a point about one mile south of Ophir turn left on an unimproved access road for about 1/2 mile to the San Juan Mine and/or Matterhorn Mine portal. In good weather the mine may be reached by a two-wheel drive vehicle, however during inclement weather a 4-wheel drive vehicle would be needed to get to the mine portal. All roads to the mine are all-weather Federal or State Highways, except for the last 1/2 or 3/4 of a mile. The San Juan Mine is some 360 miles from the applicant's residence in Boulder, Colorado, and is normally reached by travelling from Boulder, Colorado southward on Colorado State Highway 93, 20 miles to Golden, Colorado, then southward for 5.5 miles to Morrison, Colorado. At Morrison, Colorado, take U. S. Highway 285 south and west to Fairplay, Buena Vista, and Poncha Springs, Colorado, a distance of some 122 miles. At Poncha Springs take U. S. Highway 50 westward over Monarch Pass to Gunnison and Montrose,

Colorado, a distance of 125 miles. The road log from Montrose, Colorado to the San Juan Mine is described above.

Property

Charles H. Turner and Anne Z. Turner, the applicants, are the owners of the San Juan lode claim, Survey 1167A, and S. B. Kenrick lode claim, Survey 2683 and the San Juan millsite Survey 1167B. Figure 1. Both claims are patented. The applicant has also staked a number of unpatented San Juan claims adjacent to the patented San Juan and S. B. Kenrick claims. The San Juan claims, sometimes referred to as the Matterhorn drifts, are on the east side of the Lake Fork of the San Miguel River, about 1-1/2 miles south of Ames and opposite the San Bernardo Mine. Claims were first staked at this site in 1877 and by 1883 the workings consisted of four adits, 280, 290, 120 and 30 feet long, and one 60-foot winze (Corregan and Lingane, 1883). The lower adit is at an altitude of about 9,675 feet, the upper at 10,040 feet. The applicant's map dated February 26, 1957 shows the uppermost tunnel, F, to have been driven about 145 feet, and to have been stoped to the outcrop, or nearly so. The vein is reported here to have been 6 feet wide, with a high grade portion 18 inches wide, containing gray copper and sulfides having an average value of 106 ounces of silver to the ton. Tunnels E and D were driven on the vein for 38 and 90 feet respectively, but the map shows no stoping, Tunnel C is shown to be nearly 200 feet above the lowermost tunnel A, and the map shows Tunnel C, to have two small stopes as much as twenty feet above the level as long as 30 feet.

History and Production

The San Juan claims sometimes referred to as the Matterhorn drifts, (Plate A, B and C of application) are on the east side of the Lake Fork of the San Miguel River some 14 miles from Telluride, Colorado. The San Juan claims are located on a vein that follows a westward trending fissure which may be the eastward continuation of the San Bernardo fissure, or one of the several westerly trending veins that cut the intrusive and adjacent country rocks, in the Trout Lake Mining district. The San Juan claims were staked in 1877, and were worked in the late 1800's and early 1900's. Production from the San Juan vein has been sporadic since the late 1800's, the latest activity being in 1962. Production from individual veins in the Trout Lake and adjoining Iron Springs districts has ranged from a few hundred or thousand tons, to 100,000 tons or more. Production has ranged in value from a few thousand to over four million dollars. The chief product has been silver together with lead, copper, and gold. The mines have had a history of intermittent activity during times of favorable economic conditions, none has been a continuous producer. The largest mines were the Butterfly-Terrible (about a half mile north of the San Juan claims) with a production of $1.48 million; the Silver Bell, east of the Butterfly, with a production of $1.65 million, and the San Bernardo, west of the San Juan Claims with a production of about $1.42 million. Between 1902 - 1928 the San Bernardo mine was reported to have produced 91,000 tons of ore that contained 1,520 oz. Au, 607,000 oz. Ag, 2,830,000 lbs. of Pb and 240,000 pounds of Cu. Purington who visited the property in 1896 reported (in unpublished Survey field notes) that during 1891-95 there was ore produced that had a value of $130,000.00,

mostly in silver.

From 1928 - 1957 activity was sporadic and little ore was produced. Less than 3,000 tons of ore is reported to have been produced during 1964 - 66. The majority of the production from the San Bernardo vein has come from metamorphosed Mancos shale. However, stoping of veins in most other mines in the area has been in igneous rock. A reported 88,871 tons of ore mined from the San Bernardo vein between 1902 - 1942 averaged about 0.017 ounces of gold, 6.83 ounces of silver, 1.59 percent lead, and 0.137 percent copper. Gross values of this ore at current prices (3/20/74) would be $46.75 per ton.

The Garabaldi vein, about 200 feet south of and parallel to the San Bernardo vein, strikes about N. 78° W., and generally dips steeply south. On the lower level the country rock is in granodiorite porphyry. The vein is about 2 - 4 inches wide, and not nearly so strong on the San Bernardo vein, but the vein was somewhat wider where stoped.

The Butterfly Mine on the east side of the Lake Fork of the San Miguel River about one-half mile north of the San Juan or Matterhorn mine is the other major producer in the area. The workings of the Butterfly mine are entirely within the microgranogabbro of the Ophir stock and is reported to have had a production valued at about $1.65 million.

The productive workings totalling 10,000 feet of drifts and crosscuts are on the westward trending Ida and North (or Dill) veins which strike N. 60° - 80° W. The Ida vein has an average dip of about

75° south, and the north vein about 75° North. The veins worked in the Silver Bell mine just east of the quadrangle boundary are probably the eastern continuation of the vein system in the Butterfly mine. However, the Silver Bell Mine workings are all in the San Juan tuff. Purington's unpublished data for 1896 indicate that the veins ranged from a few inches to 2 feet in width, but in ore shoots they probably averaged more than one foot.

The tenor of the ore in the Minerals Yearbook of the U. S. Bureau of Mines. During 1936 - 40, 62,670 tons of ore from the Butterfly Mine was milled which averaged, per ton, 0.055 ounces of gold, 7 ounces of silver, 1.04 percent lead, and 0.186 percent copper. This grade of ore at current prices (3/20/74) would have a gross value of $51.99 per ton.

Ownership

Charles H. Turner and Anne Z. Turner, P. O. Box 3224 HiMar Station, Boulder, Colorado, d.b.a. Hamilton Resources Corporation own the San Juan lode and S. B. Kenrick lode, Survey 2683, patented lode claim, and the San Juan Mill Site, Survey 1167B that lie in Sections 4 and 5, township 41 North, Range 9 West, NMPM in the Trout Lake Mining district, San Miguel County, Colorado. Plate B, and Figure 1. There are no liens or other encumbrances upon the land.

The applicants have staked some unpatented lode mining claims adjoining the patented claims, however the San Juan vein lies well within the boundaries of the San Juan and S. B. Kenrick patented claims, and apex rights apply to the vein on the patented claims consequently subordination of the unpatented claims in the event that a contract is

executed appears unwarranted.

Financial Eligibility

The applicant has supplied letters of request to the Banks asking for an exploration loan in the amount that the government would participate, or $26,847.15. This amount is 75 percent of an exploration program estimated to total $35,796.20. The correspondence to, and from the Banks are included with this report of examination.

The applicant's share or 25 percent would be $8,949.02 of the estimated total cost of the program, and he advises us that this amount will be available any time a proposed contract is tendered to him without difficulty and that he can carry out the proposed exploration program as herein outlined, immediately upon the execution of a contract.

Geology

Vein Deposits[1/]

General

"Gold, silver lead, copper and zinc have been produced from the vein deposits, but the principal values of ore shipments have been in silver and gold. The value of past production in the Mt. Wilson Quadrangle in which the San Juan claims lie is probably about $3 million."

"The productive veins are spatially and possibly genetically related to several discordant intrusive masses that extend westward in a belt across the northern half of the Mt. Wilson Quadrangle. Within this intrusive belt the veins seem to be restricted to an east-west 1-2 miles wide across the quadrangle from Ames-Matterhron area on the east to the Silver Pick-Navajo Basin area on the west."

"The bulk of the production from the mineralized zone has come from fissure veins within the igneous rocks. The rarity of veins in the sedimentary rocks between the outcropping intrusive bodies is probably due to the fact that these rocks are mainly Mancos Shale, which is too incompetent to provide open fissures. In only one mine has production come from the Mancos Shale, but in it the veins cut the Mancos immediately adjacent to an intrusive body, and the formation is metamorphosed to a massive hornfels."

"Fissures in the area strike westward, northeastward, and northwestward, but most of the veins that have been mined are along fissures of westerly trend and steep dip. Fissures of this group strike N. 70° E. to N. 70° W. and generally dip more than 70° to the north or south."

"This direction of fracturing is conspicuous in most areas of outcrop of the major intrusive masses, both in the Ames-San Bernardo mine area and in the Wilson Peak Stock."

"Two general types of ore can be distinguished in the area -- gold ores and silver-lead ores. The two ore types are found in both westward and northeast-trending fissures, but the known gold ores are restricted to the area near the head of Navajo and Silver Pick Basins, several miles west of the San Juan property, the subject of this application."

The silver-lead ore deposits are more widely distributed than the gold ore deposits and include all the known veins between the east boundary of the quadrangle and Bilk Creek. The principal producers of silver-lead ore are the San Bernardo and the Butterfly mines. The ore from the San Bernardo Mine occurs in veins in the Mancos shale which

has been metamorphosed to a massive hornfels as the Mancos here is adjacent to an intrusive body. The San Juan vein may be on the same structure as the San Bernardo or a similar one, but lies to the east and is entirely within the Ophir stock.

In the silver lead ores the predominantly primary sulfide minerals are galena, sphalerite, and pyrite; although generally subordinate chalcopyrite, and tenantite-tetrahedrite are common and in places are abundant. The common gangue minerals are quartz, calcite, and brown carbonate minerals; lesser amounts of barite and rhodochrosite also occur. The silver-lead ores generally contain less than 0.10 ounces of gold per ton. Silver may assay 40 ounces or more per ton locally, but available production figures from records of the U. S. Geological Survey and from the Minerals Yearbook of the U. S. Bureau of Mines suggest that the mine-run ore averaged less than 10 ounces of silver per ton.

"The silver-lead ores of the area have been explored from an altitude of about 7,600 feet to at least 10,500 feet, a range of nearly 3,000 feet. The lower limit represents that imposed by the bottom of a major valley (with attendant drainage problems) rather than a change in the character of the veins; similarly the upper altitude does not necessarily indicate an upper limit. Individual lodes have been explored through vertical intervals of 1,000 feet without appreciable changes in character."

1/ Bromfield, C. S., 1967, Geology of the Mount Wilson Quadrangle Western San Juan Mountains, Colorado, U. S. Geol. ~~Survey Prof. Paper~~ Bull 1227, p. 81 - 83.

San Juan Mine

As previously stated in this report the San Juan Claims, sometimes referred to as the Matterhron drifts are on the east side of the Lake Fork of the San Miguel River about 1-1/2 miles south of Ames and opposite the San Bernardo mine. The workings consist of four adits 280, 290, 120 and 30 feet long, and one 60-foot shaft or winze. All workings are caved and are inaccessible except for the lowermost or A tunnel that lies at an elevation of 9,675 feet above sea level. The upper tunnel is at an elevation of 10,040 feet.

The San Juan vein lies entirely within the microgranogabbro of the Ophir stock, however the fissure is near the contact with the Mancos shale, which is a few tens of feet south of the lowermost adit. The vein is typically narrow ranging from 3 to 18 inches in width, strikes N. 65° E., and dips 75° - 80° south, even though anastomosing stringers may locally increase the width to 2 - 3 feet. The vein consists mostly of pyrite, chalcopyrite, galena, and tetrahedrite. The vein is a typically filled fissure with well defined walls. Along the strongly shattered parts of the fissure the vein fillings show braided or "linked" structure. Portions within the vein are gougy, with numerous small sulfide stringers. There is a considerable amount of carbonate minerals mostly calcite, and possibly some barite.

The applicant's map, accompanying the application shows the uppermost F tunnel to have been driven about 145 feet, and to have been stoped to the outcrop, or nearly so. The vein is reported here to have been

6 feet wide, with a high grade portion 18 inches wide, containing gray copper, and other sulfides having an average value of 106 ounces of silver per ton. Tunnels E and D were driven on the vein for 38 and 60 feet respectively, but no stoping is shown on the map. Tunnel C is shown to be nearly 200 feet above the lowermost A tunnel, and the C tunnel is shown to have two small stopes as high as 20 feet above the level for a distance of some 30 feet. There are no assays reported from samples taken in the stopes, however the applicant's series of "C" samples, taken over a distance of some 80 feet beyond the last stope, show an average assay of 0.06 oz. Au, 11.43 oz. Ag and 1.46 percent copper the average width of vein material sampled is about one foot. Value of this material at current prices ($172.55/oz. Au, $5.00/oz. Ag, and 0.6815¢/lb. copper) would gross $87.34 per ton.

Tunnel B was driven some 83 feet below Tunnel C and was the level most extensively stoped. One stope extends along strike for a distance of 205 feet and as high as 50 feet, but will average forty feet high. This stope is reported to have been as much as nine feet wide containing galena, gray copper, brittle silver and other sulfides in a quartz and spar gangue. When sorted, the values reportedly ran 25% copper and $17.00 in gold and 90 ounces silver per ton.

Samples taken by the applicant from B tunnel were cut on the fringes of the stopes, as well as in the back of the drift between the two stopes and northeastward toward the face of the drift that lies some 55 feet from the last stope.

The 13 samples averaged one foot in thickness and averaged 0.13 oz. Au, 12.38 oz. Ag and 1.79% Cu per ton. Gross value of this material at current metal prices ($172.55 Au/oz., $5.00 Ag/oz. and 0.6815¢/lb. Cu) would be $108.72 per ton.

Tunnel "A" the tunnel currently open, and the only one that was made accessible for an examination was inspected December 12 and 13, by the Field Officer, Region III, accompanied by the applicant, Mr. Charles Turner, Boulder, Colorado. Samples taken by the applicant of the San Juan vein from A tunnel had an average grade of 0.05 oz. Au, 6.57 oz. Ag, 0.89% Cu, and 1.35% Pb over a width of 2.14 feet. Gross value of this ore at current metal prices ($172.55/oz. Au, $5.00/oz. Ag, 0.6815¢/lb. Cu, and .1900¢/lb. Pb) would be $58.73 per ton.

The average grade of the assays taken from tunnels A, B, C is 0.089 oz. Au, 8.92 oz. Ag, 1.26% Cu, and 1.35% Pb. Gross value of the assays at current metal prices as of March 27, 1974 ($172.55 oz. Au, $5.00 oz. Ag, .6815¢/lb. Cu, and 0.19¢/lb. Pb) would be $82.25 per ton.

The Butterfly Mine

The Butterfly Mine located about a half-mile north of the San Juan Mine lies entirely within the Ophir stock, was possibly the second largest producer in the Trout Lake Mining District and has a reported production valued at some $1.42 million from some 10,000 feet of workings. The Butterfly Mine consists of a series of overlapping veins trending northwest to west dipping from steeply north to steeply south, contain pyrite, galena, sphalerite, chalcopyrite, and tetrahedrite in a gangue of quartz, calcite and barite.

Production figures for the years 1937 through 1940 are reported

to total 62,670 tons of ore that averaged 0.055 oz. Au, 7.00 oz. Ag, 0.186% Cu and 1.04% Pb. There were some reserves estimated at 2,340 tons that would average 0.093 oz. Au, 32.5 oz. Ag, 10.0% Pb and 1.12% Cu per ton. Samples taken, throughout the mine show the veins to have an average width of 22 inches.

Value of ore at current prices as shown here range from $50.97 per ton to as much as $231.80 per ton. The lead and silver values in the quoted reserve figure are too high a value to use in appraising the district as a whole, however values of ore ranging from $50.00 to better than $80.00 per ton are not out of the ball park, so to speak.

San Bernardo Vein

The San Bernardo Vein occupies a fault fissure, chiefly in the gently dipping Mancos shale. The vein strikes about N. 80° W. and dips 60° - 70° southwesterly. Width varies from less than a foot up to seven feet. Mine workings total some 9,000 feet. Indications are that the veins in the silicified Mancos shale are stronger, more persistent and more productive than when they occur within the Ophir stock, however the San Bernardo vein is the only vein in the area that lies in the Mancos shale.

Production records from the San Bernardo Mine, 1902 to 1942 shows that 88,781 tons of ore were mined that had an average grade of 0.017 oz. Au, 6.83 oz. Ag, 0.137% Cu, and 1.59% Pb. Gross value of the ore at current metal prices ($172.55/oz. Au, $5.00/oz. Ag, .6815¢/lb. Cu, and .1900¢/lb. Pb) would be $42.34.

Applicant's Proposed Exploration Program

The Applicant originally proposed a program totalling $10,703.00 which included some rehabilitation of the A tunnel to be followed by diamond drilling from an underground site for a total of some 550 feet to explore for the downward extension of the San Juan vein. The applicant was informed that we would not do any of the rehabilitation, and that the workings must be made accessible for an inspection. The rehabilitation work was done on his own account and an examination of the lower or A tunnel was made by the esamining geologist December 11 - 13, 1973, in company with the applicant, Mr. Charles Turner.

As a result of the examination an increased drilling program was suggested and costs were estimated at $19,503.00, however it was further suggested that the most suitable and effective method of exploration would be by drifting northeasterly along the San Juan vein for some 300 feet. Diamond drilling equipment is so difficult to obtain, it is also next to impossible to obtain a reasonable diamond drilling bid for such a small amount of drilling. In fact, the applicant was unable to obtain even one bid. It is now proposed that the San Juan vein be explored by drifting from the present face of the A tunnel workings for a distance of 300 feet eastward. Estimated total costs for this project will be $35,796.20. Government participation at 75 percent would be $26,847.15. The applicant assures us that he is willing and able to provide his 25 percent participation or $8,949.05.

The three hundred foot of drift from the present face of the A tunnel would terminate near the end of the old workings as projected

at depth, and this amount of drifting would adequately explore the San Juan vein at depth.

Examiner's Evaluation and Appraisal

The veins throughout the district are characteristically narrow ranging usually from a few inches to 1-1/2 to 2 feet in width, however old reports and data obtained during times of maximum production during the late eighteen hundreds indicates that many of the stoped areas in the most productive mines are as wide as 9 feet, and are often from 3 to 6 feet wide. Ore mined from the wide portion of the stopes appear to contain pods containing very high grade ore, with silver assays many times higher in grade than the average grade of 10 ounces of silver per ton. Reports of 70 - 100 ounces of silver per ton are numerous, even though vein descriptions do not indicate an abundance of cross fracturing, or faulting. Most of the stopes in the region were caved and the workings inaccessible even when C. W. Purington was first in the district (1896). This behavior of the veins, and the fact that mines in the region have produced tonnages ranging from a few hundred, or thousands of tons, to 100,000 tons or more valued at a total of some $4.55 million, thus yielding values averaging $45.00 per ton at the old prices. Much of the ore mined, was mined at a time when gold was only $20.00 per ounce. In order to have a gross value of $4.55 million, a considerable amount of the total ore mined would have to have been valued at a figure greater than $45.00 per ton.

Because of the unique production figures and ultimate value of ore mined from a total of some 30,000 feet of workings, throughout the

region it appears justifiable to explore the San Juan vein for a distance of 300 feet. It is therefore recommended that a contract be prepared to explore the San Juan vein for 300 feet for gold, silver, copper and lead, northeastward from the lowermost A tunnel. Figure 2. Total estimated costs of the project are $35,796.20. Government participation at 75% would be $26,847.15. The applicant's share at 25% would be $8,949.05. The applicant informs us that his share will be met without difficulty. He intends to complete the work on his own, without contracting the work to another company.

Estimated costs are as follows:

(a) Independent Contracts		
Access road work - D7 bulldozer, 30 hrs. @ $27.50		$825.00
(b) Personal Services		
Supervision & engineering - 3 months @ $1,500.00/month	$4,500.00	
2 miners - 3 months	$6,000.00	
1 helper - 3 months @ $850.00/month	$2,550.00	
1 outside consultant - 3 days @ $125.00	$375.00	
Per diem/consultant - 3 days @ $25.00	$75.00	
Transportation/consultant - 216~~0~~ miles @ 12¢/mile	260.00 ~~$259.20~~	$13,759.20
(c) Operating Materials & Supplies		
Explosives, per foot - $7.00 (x 300')	$2,100.00	
Pipe - 700' 3" airline @ $1.25/foot	$875.00	
700' 1" water line @ .46/foot	$322.00	
Ventube - 100' x 18" (flex.) @ $7.90/foot	$790.00	
Galvanized vent pipe 650' x 18" @ $2.75	$1,787.50	
Steel & bits, per foot - $3.30 (x 300')	$990.00	
Small tools (est.)	$300.00	
		$7,164.50

Estimated Costs are as follows: (Continued):

(d) Operating Equipment

Compressor - 600 cfm electric, 3 months rental @ $850.00/month	$2,550.00	
Loader - diesel powered with scrubber, 3 months rental @ $1,000.00	$3,000.00	
Gardner-Denver jackleg drill - 3 months rental @ $300.00/month	$900.00	
Electric pump - 3 months rental @ $100.00	$300.00	
FWD pick-up 3 months rental rental @ $110.00	$330.00	
Mobilization & Demobilization	$300.00	
		$7,380.00

(e) Initial Rehabilitation & Repairs
250' of road (see (a) above)

(f) New Buildings, Fixtures, Installations
None

(g) Miscellaneous

(i) Pick-up truck

Gasoline - 300 gals. @ .50/gal	$150.00	
Oil - 15 gals. @ $3.00/gal.	$45.00	
Maintenance & service-3 months	$90.00	
Diesel loader		
Diesel fuel - 600 gals. @ .45/gal.	$270.00	
Oil - 25 gals. @ $3.00/gal.	$75.00	
Maintenance & service-3 months	$150.00	
		$780.00

(ii)

Assaying - 180 samples @ $8.50 (Au, Ag, Cu)	$1,530.00	
Office - Reporting & Accounting, 3 months @ $50.00/month	$150.00	
Payroll taxes, insurance, etc. $13,050.00 x 15%	$1,957.50	
		$3,637.50

(iii) Services

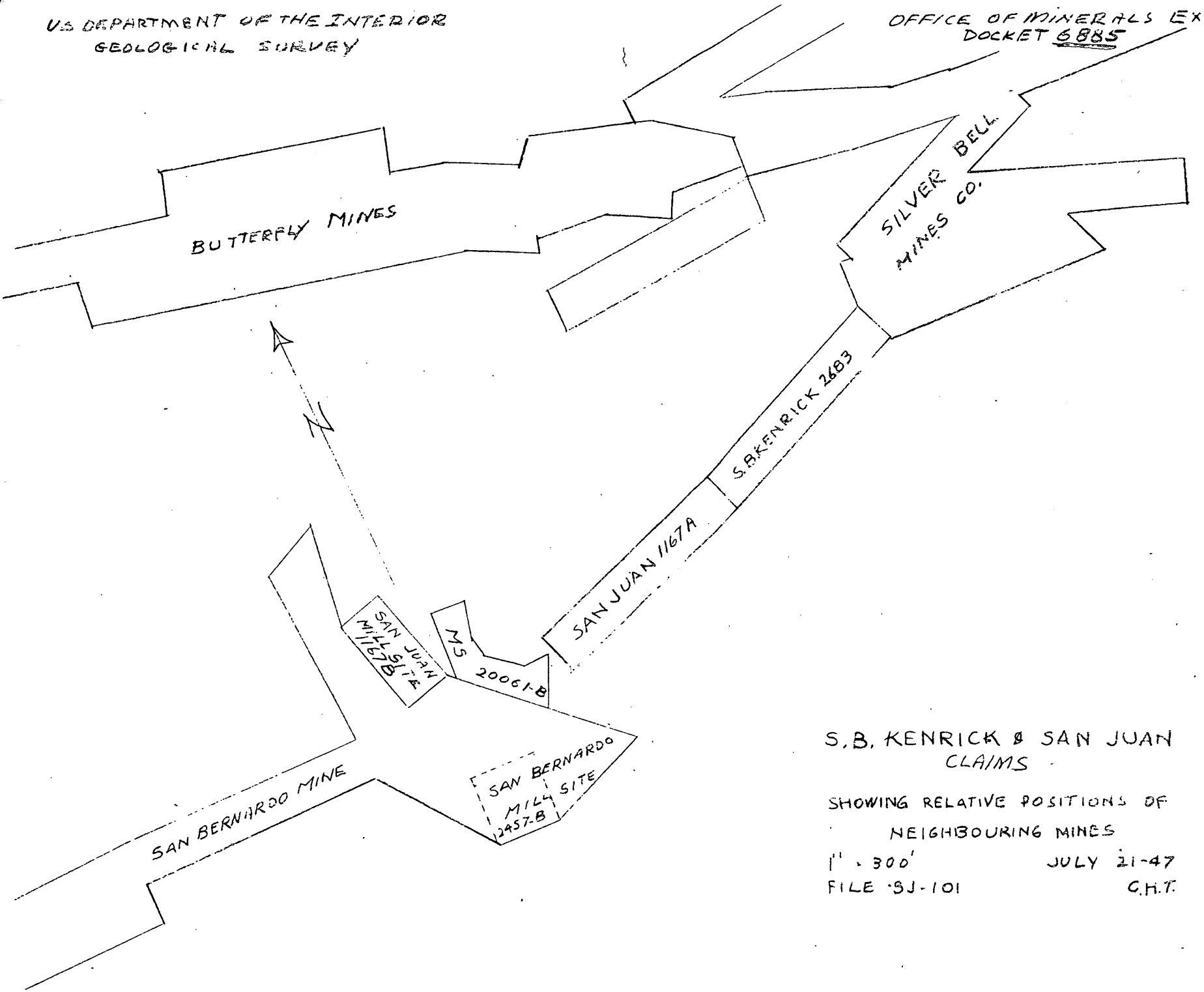
Electric power for compressor, blower, pump, 3 months @ $750.00 (est.)		$2,250.00
	TOTAL	$35,796.20

$33,933.00

$100.00

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
DOCKET 6885



S.B. KENRICK & SAN JUAN CLAIMS

SHOWING RELATIVE POSITIONS OF NEIGHBOURING MINES

1" = 300' JULY 21-47

FILE SJ-101 C.H.T.

FIGURE 1

EXPLORATION CONTRACT
HAMILTON RESOURCES CORPORATION
OME-6885

ANNEX I

The land, including all rights pertaining thereto, referred to in Article 2 of the contract consists of two (2) patented lode mining claims and a mill site in Sections 4 and 5, T. 41 N., R. 9 W., NMPM, Trout Lake Mining District, San Miguel County, Colorado. These claims are shown in figure 1, titled "S. B. Kenrick and San Juan claims" which is attached and made a part hereof.

The patented lode mining claims are identified as:

Name	U. S. Survey No.
San Juan	1167A
S. B. Kenrick	2683
San Juan Millsite	1167B

The Operator, Charles H. Turner and Anne Z. Turner d/b/a Hamilton Resources Corporation is in possession of all of these claims, having been in possession of them for many years as a family inheritence since the early 1900s. An Indenture made April 23, 1973, between Charles H. Turner and Anne Z. Turner, and Hamilton Resources Corporation, a Colorado Corporation, placed the above patented claims and mill site in the corporation for business and accounting purposes. The instrument is enclosed.

EXPLORATION CONTRACT
HAMILTON RESOURCES CORPORATION
OME-6885

EXHIBIT A

The purpose of the project is to explore by drifting on the A Tunnel level on and along the steeply dipping San Juan vein for 300 feet in a northeastward direction for gold, silver, copper and lead ore bodies in "microgranogabbro"-adamellite intrusive rocks of the Ophir stock.

General Provisions

The drifts shall not be less than 6 by 8 feet in cross section and shall be timbered as necessary. Drift and raise sets shall be not less than 8- by 8-inch timber, or equivalent round timber.

The drift shall be run trackless using rubber-tired diesel powered equipment with adequate scrubbers and anti-pollution devices for safemining.

All significantly mineralized areas traversed by the drifts shall be sampled normal to the trends of the deposits at intervals not exceeding 5 feet, or by a representative bulk sample of each round broken.

All samples, from whatever source, shall be split as necessary and one split assayed. The Operator shall store one split of each sample in a suitable container properly labeled. Stored samples shall be made available for Government inspection and possible use, and may be disposed of only with prior Government approval.

All splits of samples assayed shall be analyzed for gold, silver, copper and lead.

True copies of assay certificates and maps or sketches showing the work completed, the location, width, and assay value of all samples assayed, and the geological formations and structures traversed by drill shall be furnished monthly to the Government.

The Operator shall provide such equipment, materials, supervision, labor, and technical services as may be required to perform his work in a satisfactory manner.

The location, direction, and extend of each work item shall be subject to Government approval.

Description of the Work

The work shall consist of extending the A tunnel, No. 2 drift from the present face an additional 300 feet on and along the San Juan vein as is projected from the B tunnel level, to further explore the San Juan Vein northeastward along its strike.

The approximate location of the proposed drift extension is shown on Figure 2 entitled "San Juan Mine, Matterhorn, Colorado."

Estimated costs are as follows:

(a)	Independent Contracts		
	Access road work - D7 bulldozer, 30 hrs. @ $27.50		$825.00
(b)	Personal Services		
	Supervision & engineering - 3 months @ $1,500.00/month	$4,500.00	
	2 miners - 3 months	$6,000.00	
	1 helper - 3 months @ $850.00/month	$2,550.00	
	1 outside consultant - 3 days @ $125.00	$375.00	
	Per diem/consultant - 3 days @ $25.00	$75.00	
	Transportation/consultant - 2160 miles @ 12¢/mile	$259.20	$13,759.20
(c)	Operating Materials & Supplies		
	Explosives, per foot - $7.00 (x 300')	$2,100.00	
	Pipe - 700' 3" airline @ $1.25/foot	$875.00	
	700' 1" water line @ .46/foot	$322.00	
	Ventube - 100' x 18" (flex.) @ $7.90/foot	$790.00	
	Galvanized vent pipe 650' x 18" @ $2.75	$1,787.50	
	Steel & bits, per foot - $3.30 (x 300')	$990.00	
	Small tools (est.)	$300.00	
			$7,164.50

Estimated Costs are as follows: (Continued):

(d) Operating Equipment

Compressor - 600 cfm electric, 3 months rental @ $850.00/month	$2,550.00	
Loader - diesel powered with scrubber, 3 months rental @ $1,000.00	$3,000.00	
Gardner-Denver jackleg drill - 3 months rental @ $300.00/month	$900.00	
Electric pump - 3 months rental @ $100.00	$300.00	
FWD pick-up 3 months rental rental @ $110.00	$330.00	
Mobilization & Demobilization	$300.00	
		$7,380.00

(e) Initial Rehabilitation & Repairs
250' of road (see (a) above)

(f) New Buildings, Fixtures, Installations
None

(g) Miscellaneous

(i) Pick-up truck

Gasoline - 300 gals. @ .50/gal	$150.00	
Oil - 15 gals. @ $3.00/gal.	$45.00	
Maintenance & service-3 months	$90.00	
Diesel loader		
Diesel fuel - 600 gals. @ .45/gal.	$270.00	
Oil - 25 gals. @ $3.00/gal.	$75.00	
Maintenance & service-3 months	$150.00	
		$780.00

(ii)

Assaying - 180 samples @ $8.50 (Au, Ag, Cu)	$1,530.00	
Office - Reporting & Accounting, 3 months @ $50.00/month	$150.00	
Payroll taxes, insurance, etc. $13,050.00 x 15%	$1,957.50	
		$3,637.50

(iii) Services

Electric power for compressor, blower, pump, 3 months @ $750.00 (est.)		$2,250.00
	TOTAL	$35,796.20

1/ Include all costs whatsoever such as mobilization and demobilization, labor, equipment, materials, and supplies and services.

2/ The Government retains no equity in any of the equipment or materials used.

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
DOCKET 6885

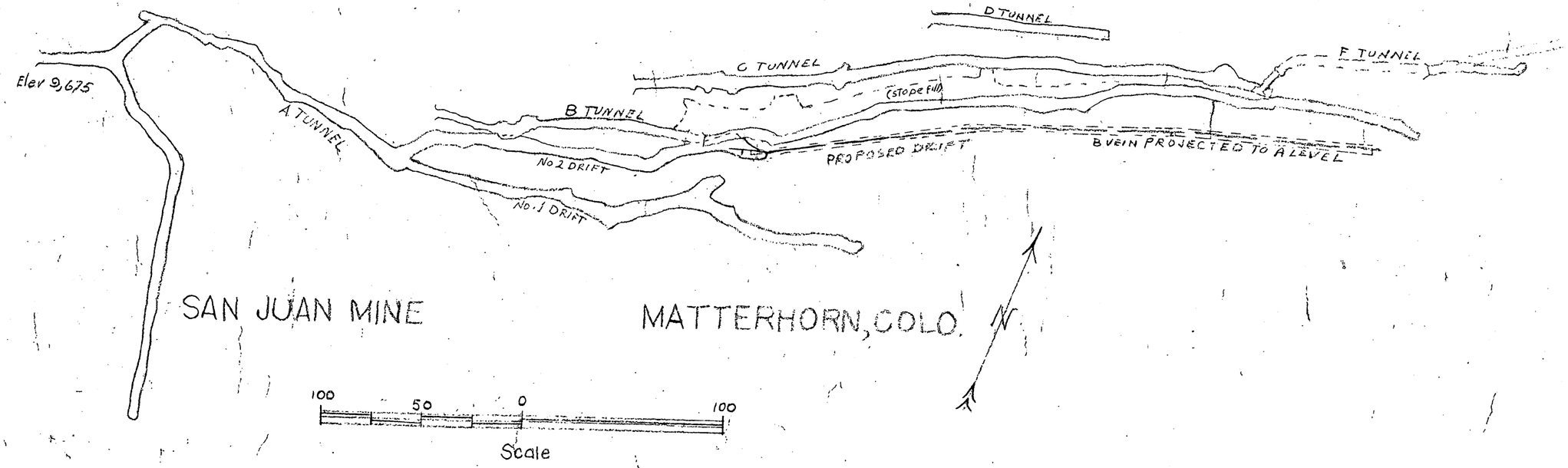
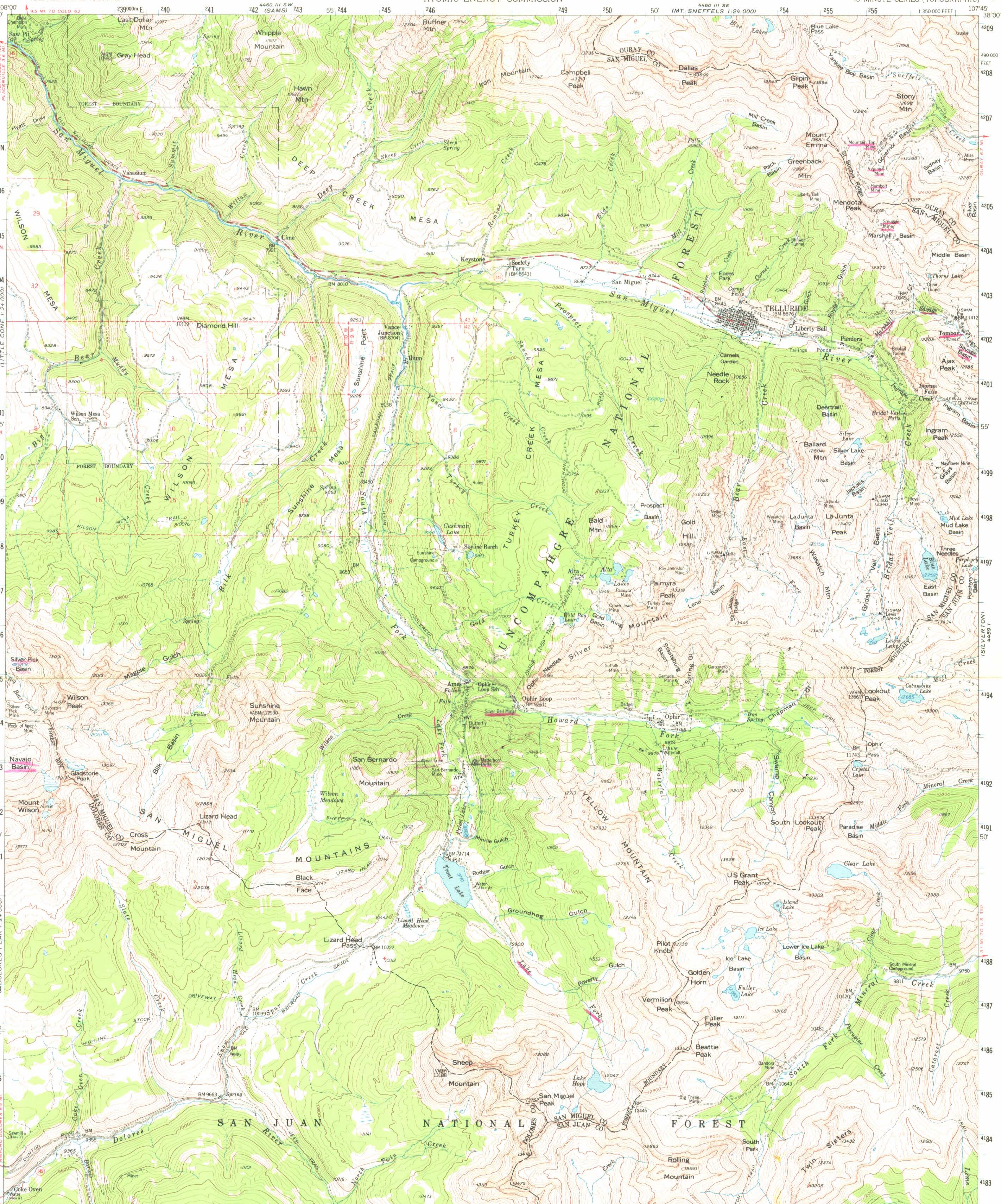


FIGURE 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
ATOMIC ENERGY COMMISSION

TELLURIDE QUADRANGLE
COLORADO
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Compiled in 1959 from 1:24 000-scale maps of Telluride, Gray Head, Mount Wilson, and Ophir 7.5 minute quadrangles, surveyed 1953-1955. Topography from aerial photographs by photogrammetric methods. Aerial photographs taken 1951-1952

Polyconic projection. 1927 North American datum
10,000-foot grid based on Colorado coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue

Dashed land lines indicate approximate locations
Certain land lines omitted because of insufficient data, or because of alleged fraud or defects in the surveys
All recovered corners are shown

UTM GRID AND 1955 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:62500

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

COLORADO
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

This area also covered by 1:24 000-scale maps of Telluride, 1955, Gray Head 1953, Mount Wilson 1953, and Ophir 1955 7.5 minute quadrangles

TELLURIDE, COLO.
N3745—W10745/15

1955

AMS 4459 IV—SERIES V777