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09/09/87

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: BUCKHORN MINE

ALTERNATE NAMES:

TRIANGLE ASBESTOS
AMERICAN ASBESTOS CEMENT CORP.

GILA COUNTY MILS NUMBER: 412A

LOCATION: TOWNSHIP 8 N RANGE 15 E SECTION 30 QUARTER SW
LATITUDE: N 34DEG 00MIN 04SEC LONGITUDE: W 110DEG 51MIN 31SEC
TOPO MAP NAME: YOUNG - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

ASBESTOS LONG FIBER
ASBESTOS SHORT FIBER

BIBLIOGRAPHY:

ADMMR BUCKHORN MINE FILE
ADMMR "U" FILE
ROMSLO ET AL "JT RPT DMEA" 4844 P 7-8
STEWART, "CHRYASB DPSTS OF AZ" USBM IC 7706
P 67-73
WILSON E D "ASB DPSTS OF AZ" AZBM BUL 126 P 78
TENNEY, J B "2ND RPT MIN IND" AZBM BULL 129

AMERICAN ASBESTOS CEMENT CORP.

GILA COUNTY

AEC 172-480 p. 56
AEC 172-480 p. 32

ABM Bull. 126

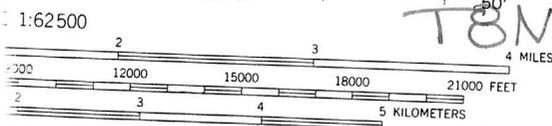
USGS P.P. 595
USGS Bull. 1046

IC 7706, p. 67
IC 7745, p. 4 - Map

Open file report of PP 595 p. 115 In AEC file

USGS circular 137

MAP of Buckhorn Mesa upstairs in flat storage area - Drawer 7
MILS Sheet sequence number 0040070090 (Buckhorn) (p. 1690)



SCALE: 1:62500
 INTERVAL 80 FEET
 MEAN SEA LEVEL



QUADRANGLE LOCATION

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

GENERAL MAP ACCURACY STANDARDS
 UNDER FEDERAL MAP ACT OF 1932, COLORADO OR WASHINGTON 25, D. C.
 AND SYMBOLS IS AVAILABLE ON REQUEST

YOUNG, ARIZ. 15' 5"
 N3400—W11045/15

1961

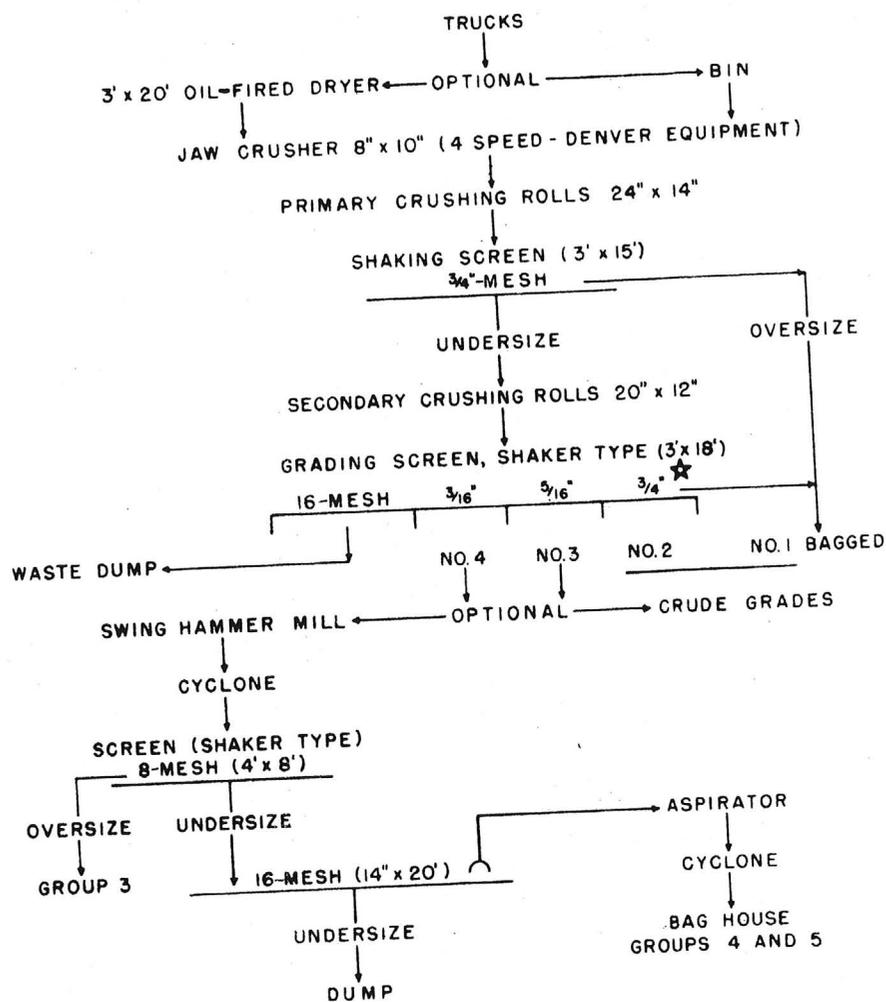
T8N R15E Sec. 30

INTERIOR-GEOLOGICAL SURVEY, WASHINGTON, D.C.—1963-T
 R. 15 E. MR 5485 522000m.E. 110°45'

BLUE HOUSE

6

GI



★ OR 3/8" DEPENDANT ON TYPE OF FIBER

Figure 28. - Mill flowsheet, American Asbestos Cement Corp.

IC 7706

3 inches of weathered asbestos and bone. An adit was driven northward for 160 feet, penetrating a diabase roll at 85 feet. Following the contact 40 feet east, the diabase sill was found to swing southeast, and a lens of mineralization was opened against the contact. There a 10-inch serpentine zone contained a total of 3 inches of soft fiber. The same contact was exposed 50 feet to the southeast by another drift, but the showings consisted of a 4-inch serpentine band with 1 inch of fairly harsh, short fiber.

No. 7 prospect. - On the east side of a mesa, about 50 feet below the rim, mineralized zones have been prospected by a west-bearing, 80-foot adit with a right branch near the face. This drift is immediately north of and parallels a roll that cuts upward through 20 feet of lower Mescal beds to the base of the algal limestone. Mineralized zones are present 6 and 10-1/2 feet below the algal limestone in a level-bedded formation. The upper zone contained less than 1/2 inch of fiber and pinched out a few feet from the portal. The lower zone, carried on the floor, averaged 2 inches of pink, harsh fiber over the entire length of the workings.

The discordant sill south of the adit cuts down to the south and becomes concordant 20 feet below the base of the algal limestone. A mineralized zone, 4 feet above the diabase, can be traced for several hundred feet south. A 25-foot adit, 200 feet south of the No. 7 prospect, exposed at the surface a 7-inch serpentine band containing 2 inches of weathered fiber. This mineralization pinched out 12 feet from the portal.

Mill

The mill was constructed by the Gila Asbestos Co. in 1950. It is situated at the main camp on Cherry Creek approximately 1 mile north of the junction of Cherry and Walnut Creeks. Various additions and alterations have been made since the original installation. The mill has an 8-hour capacity of 15 to 20 tons of mill rock in the cruding section and 5 to 6 tons of mill feed in the fiberizing section.

The flowsheet is shown in figure 28. The mill was idle in March 1954.

* Reynolds Falls Group

The Reynolds Falls claims are in the Tonto National Forest at the junction of Reynolds Creek and its tributary, the South Fork, in sec. 21, T. 6 N., R. 21 E. The group of 25 contiguous, unpatented claims, which lie on both sides of the streams, is owned by John E. Wells of Tulsa, Okla.

The property is reached by an ungraded, 4-mile dirt road that branches eastward from the Globe-Young highway at the Reynolds Creek Ranger station, 49 miles north of Globe.

History

This area first was prospected in 1917 by B. L. Rogers. William Andrews made a few shipments in 1924 and 1928, after which title passed to Imperial Asbestos, Ltd. A small mill, consisting of crusher, rolls, and screens, was installed, and a small amount of asbestos was produced. In 1931 J. E. Wells acquired the property. It was operated under lease by Richard C. Currier and later by Arthur Enders, both of whom mined considerable asbestos.

IC 7706

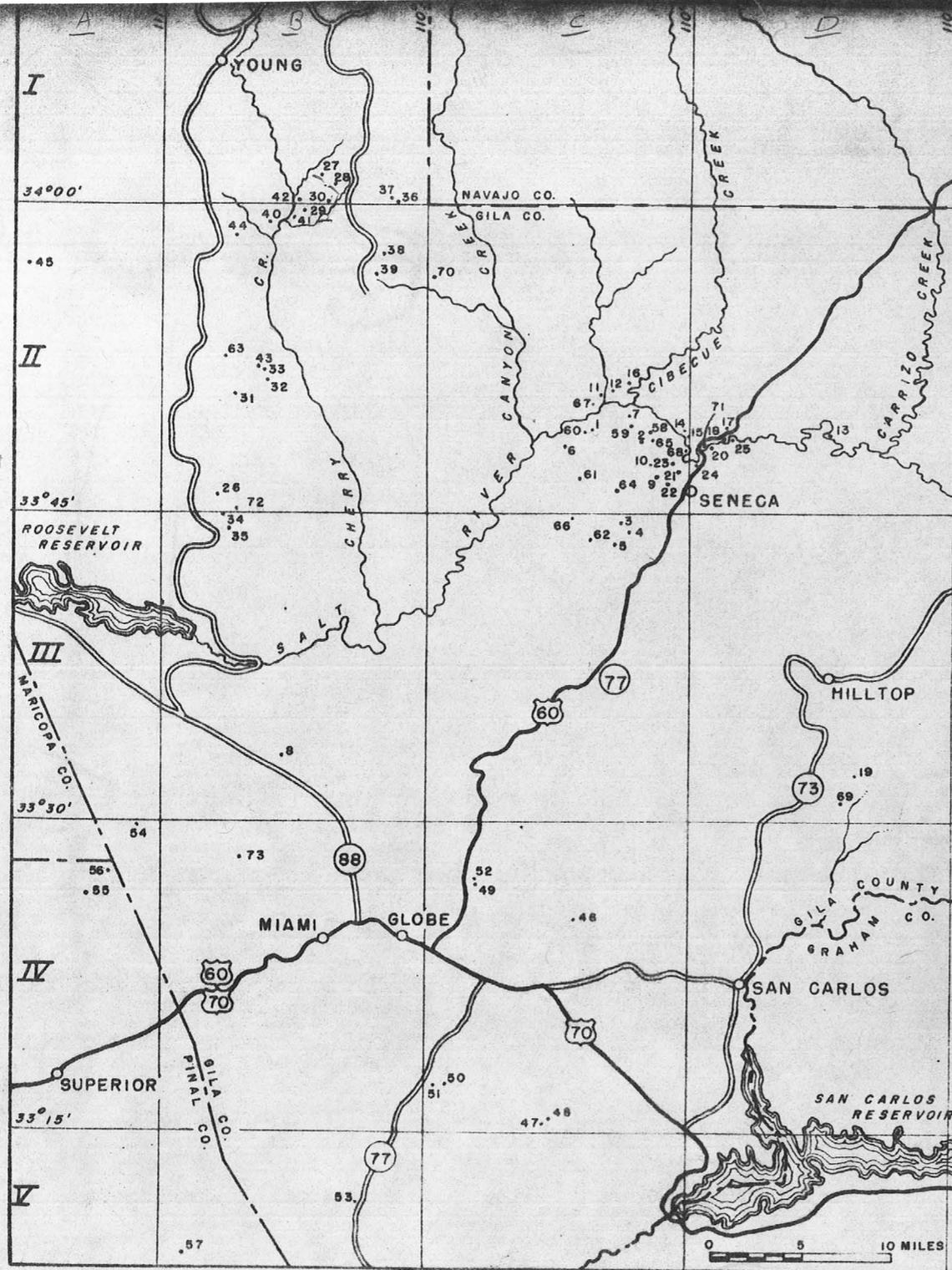


Figure 3. - Location map—asbestos deposits, central Arizona region.

Deposits discussed in this paper

		Finding index		Finding index	
58	Salt River group	C - II	21	Pine Top	C - II
59	River group	C - II	22	Emsco	C - II
60	Cliffbestos group	C - II	23	Golden Fiber	C - II
61	Wonder group	C - II	24	Great View	D - II
	Cibecue Mining Co.	Fig. 8	25	Wonder and Silk	D - II
62	Little Favor group	C - III	26	American Ores	B - II
63	Rosa claims	B - II		American Asbestos Cement Co.	Fig. 25
64	Alamo claims	C - II		No. 1	B - I
65	Oso claim	C - II	27	Home	B - I
66	Ruiz claims	C - III	28	Buckhorn	B - II
67	Fiber King	C - II	29	Tony	B - I
68	Dream Girl	C - II	30	Reynolds Falls	B - II
69	Cassadore	D - III	31	Pueblo	B - II
70	Double Buttes	C - II	32	Lucky Strike	B - II
71	Bluff claims	D - II	33	Globe	B - III
72	Loafer claim	B - II	34	Miami	B - III
73	Chuckwalla	B - IV	35	Sloan Creek	Fig. 31
74	Lucky Lager	A - IV	36	Last Chance	B - I
75	El Marmol	A - IV	37	American Beauty	B - I
Deposits discussed in IC - 7706					
1	Regal	C - II	38	American Fiber Co. Rock House, north group	Fig. 33
2	Canadian	C - II		May	B - II
	Western Chemical Co.		39	Melrose Mines	B - II
3	Victory	C - III	40	White Beauty	Fig. 36
4	El Dorado	C - III	41	J. W.	B - II
5	Triple Star	C - III	42	Man O'War	B - I
6	Fourth of July	C - II	43	Metate No. 1	B - II
7	Punto Negro	C - II	44	Bore Tree Saddle	B - II
8	G and H No. 1	B - III	45	Independent (Conway)	A - II
	Phillips Asbestos Co.		46	Metate Apache	C - IV
9	Grandview	C - III	47	Mystery	C - IV
10	Ladder	C - III	48	Chiricahua	C - IV
11	Apache (Crown Asbestos)	C - II	49	Chromo Butte	C - IV
12	Apache Extension	C - II	50	Indian Springs	C - IV
13	Stansbury	D - II	51	Lone Pine	C - IV
14	Horse Shoe	C - II	52	G and H No. 2	C - IV
15	White Tail No. 2	C - II	53	Mescal Mountain	B - V
16	Loey and Lena	C - II	54	Shackelford	A - IV
17	Prochnow (Cibecue Mng. Co.)	D - II	55	Kennedy (See Fig. 40)	A - IV
18	Snake Hill	D - II	56	North American	A - IV
19	Bear Canyon	D - III	57	Ray Southern	B - V
20	Sorsen	D - II			

IC 7745, p. 4

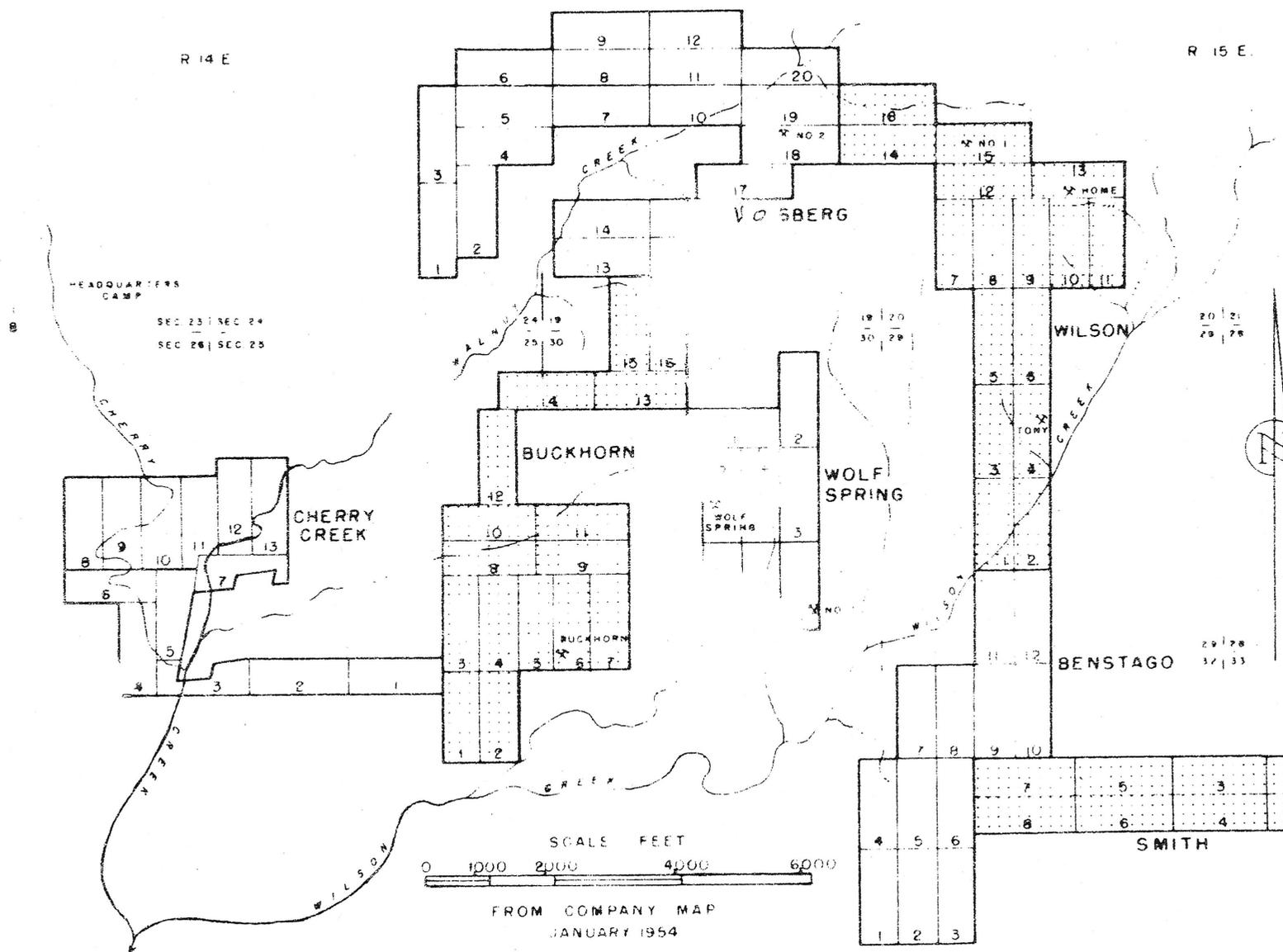
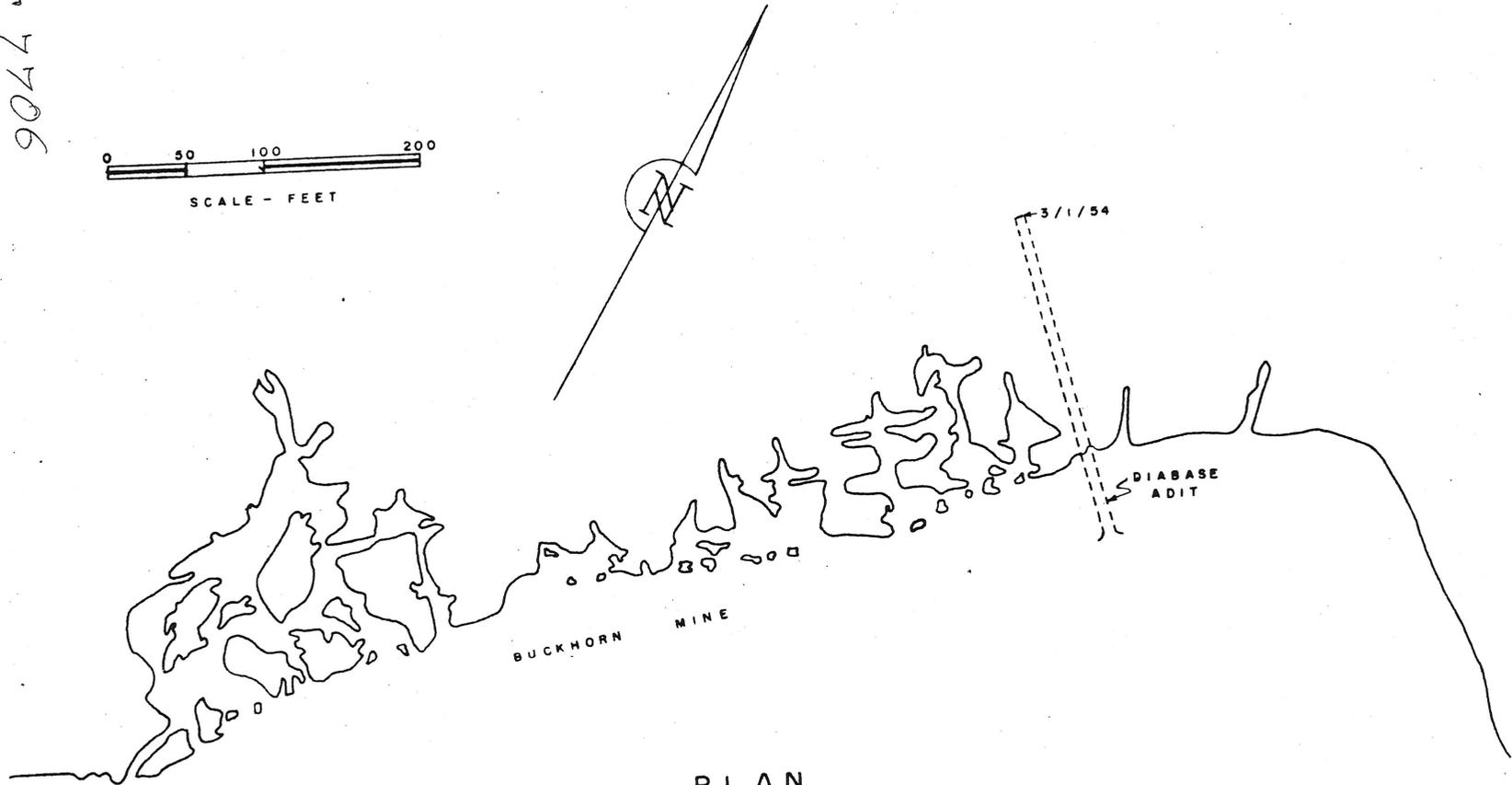
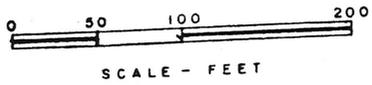


Figure 25. - Claim map, American Asbestos Cement Corp.

89
 9061706

IC 7406



PLAN
FROM COMPANY MAP
MARCH 1954

Figure 27. - Buckhorn mine, American Asbestos Cement Corp.

secs. 19, 20, 29, 30, 32, and 33, T. 8 N., R. 15 E., of the Tonto National Forest. The company camp is accessible by an 8-mile road down Cherry Creek that branches southward from the Globe-Young highway 1/2 mile east of the Young post office. A series of pilot roads leads from the camp to the various deposits.

History

The original claims near Cherry Creek were located by Clyde Kennedy in 1916-18. Additional locations were made by George B. Wilson and associates, and some asbestos was produced in 1921. The Riga Asbestos Co. held the property from 1922 to 1924, during which time small shipments of asbestos were made.

In 1927 the Triangle Asbestos Co. was formed and took over the 72 claims, constructed a small mill, and produced a considerable amount of the higher grades of asbestos. In the early 1930's the Triangle Asbestos Co. passed out of existence. Thereafter intermittent operations were conducted by various lessees. In 1949, George Kohl secured a lease of the entire property from the Wilson estate and in November of that year, with associates, formed the Gila Asbestos Co. A mill was constructed, access roads were "dozed" to various deposits, and mining was conducted.

Early in 1951 the American Asbestos Cement Corp., Ammon Smith, president, bought out the Gila Asbestos Co. and renegotiated a lease-option with the owners. Both the latter companies produced a considerable amount of asbestos, part of which went into the Government Stockpile.

The Thornburg interests took over the property in February 1954, and they continue to operate under the name of the American Asbestos Cement Corp.

Geologic Setting

Cherry Creek and its tributaries have carved the region with many steep-sided canyons but have left intervening mesas that stand from 5,000 to 5,600 feet above sea level. The claims rim these mesas in the vicinity of Cherry, Walnut, and Wilson Creeks. Because of the complex erosional dissection of the region, the extensive holdings of the American Asbestos Cement Corp. cover miles of Mescal limestone outcrops. The limestone, generally flat lying, is intruded by diabase sills, which often are characterized by discordant structures. In this area, the diabase sills and the favorable limestone units are in general close proximity, consequently there are scores of places that show varying degrees of asbestos mineralization.

Only a few of the larger deposits are described here. The smaller occurrences are too numerous to discuss in this report.

Mine Workings

No. 1 mine. - The No. 1 mine is on the north face of a mesa on Wilson claim 15. The Gila Asbestos Co. reopened old shallow workings here in 1950 and, in the course of exploration, discovered the lower ore zone from which production was begun in June of that year.

The limestone bedding dips southeast (into the hill) at approximately 5°. To facilitate extraction, a haulage adit was driven in diabase 35 feet below the deposit. At 150 feet from the portal, a raise was put up to the stope. Using a

IC 7706.

slusher at the head of the raise, ore or waste could be alternately scraped into the raise and trammed to the surface from the chute in the haulage drift (fig. 26). The mine was operating when the property was acquired by the American Asbestos Cement Corp. in February 1951.

Two fiber zones have been exposed 13 and 17 feet below the base of the algal member. The lower zone, from which virtually all production has been made, is 7 feet above a thick diabase sill. The favorable horizons are cut off to the southwest by the sill cutting upward to the base of the algal member. To the northeast the sill remains concordant for approximately 400 feet, then cuts down to a lower stratigraphic level.

Surface outcrops and mine workings show that the serpentine-fiber zone pinches down to the northeast, away from the roll, becoming subcommercial at a distance of 150 feet. Near the roll the serpentine zone had a maximum thickness of as much as 10 inches and probably averaged 5 to 6 inches throughout the mine. Approximately half of this zone was fiber, of which possibly 60 percent was of No. 1 and No. 2 grades. Approximately 300 feet from the surface the mineralization pinched down, and a fault trending east-southeast cut off the zone. The deposit was considered exhausted in November 1951. Pillars were pulled, and caving has rendered the mine virtually inaccessible.

The fiber that was produced was slightly harsh but of good tensile strength. Part of it was of Government Stockpile quality.

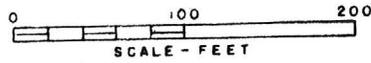
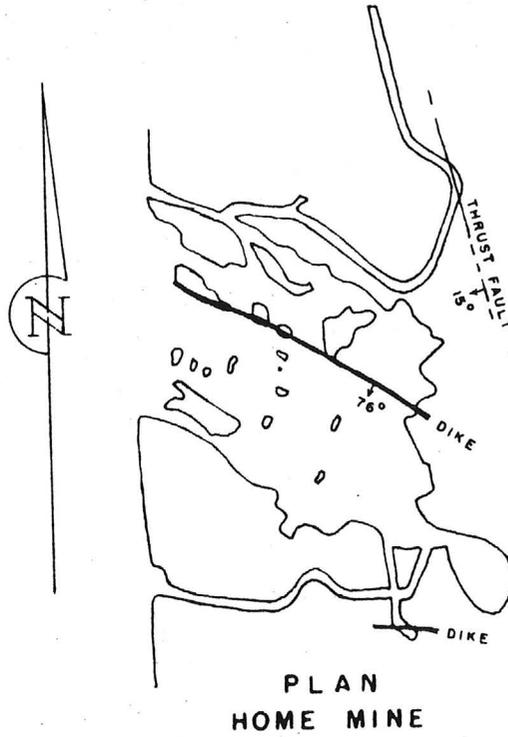
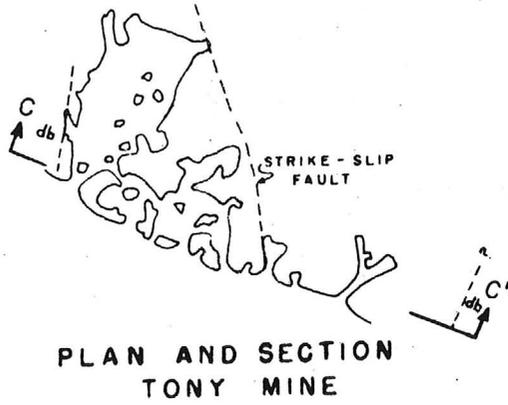
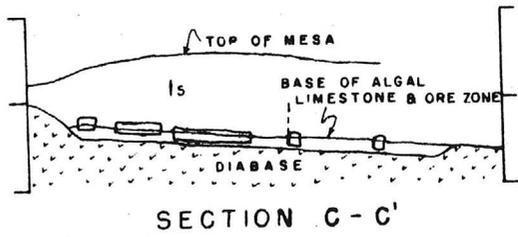
No. 2 mine. - the No. 2 mine workings are around the periphery of a small mesa that is on the Vosburg claim 18, about 1/2 mile west of No. 1 mine. The diabase sill that is in contact with the algal limestone member between the two mines cuts downward into the lower member at the south edge of the mesa and remains concordant to the north. From the discordant section of the sill on the south side of the mesa, a secondary branching sill forms a wedge between the limestone beds for some distance into the hill.

Three asbestos-bearing zones are present in the No. 2 mine area. The upper zone is approximately 6 feet below the base of the algal member. The other two are 13 and 17 feet below the algal; that is, in the same stratigraphic position as the ore zones of the No. 1 mine. The limestone-diabase contact is a few feet under the lower zone. A 110-foot adit has been driven in this limestone wedge on the lower and middle zones. The lower contained 1/2 to 2 inches total fiber and the middle zone only 1/2 inch. Eighty feet from the portal a raise opened the upper zone. Forty feet of drifting on this level exposed a diabase roll trending north west, cutting off the ore in that direction. A drift follows the diabase contact for 70 feet, and some stoping was done in the limestone northeast of the diabase. The best of this deposit showed 1-1/2 to 3 inches of soft fiber.

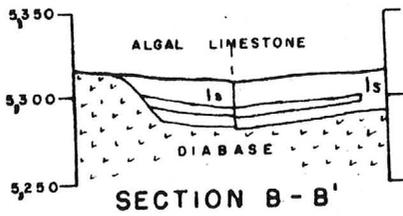
On the northeast side of the mesa, asbestos has been mined from a small deposit adjacent to a south-trending diabase dike. The workings are reported to be 140 feet long by a maximum of 40 feet wide, only part of which are accessible.

Asbestos exposed in the pillars adjacent to the dike total 2-1/2 to 7 inches. Away from the dike the fiber content decreases. The fiber is soft, but much of it is weathered and weak.

On the southwest side of the mesa, a 20-foot adit exposes 1/2 to 1-1/2 inches of soft fiber in the lower zone. The higher zones were not observed.



FROM COMPANY MAPS
JULY 1952



PLAN AND SECTIONS NO. 1 MINE

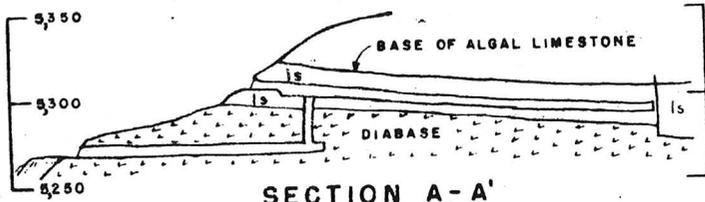
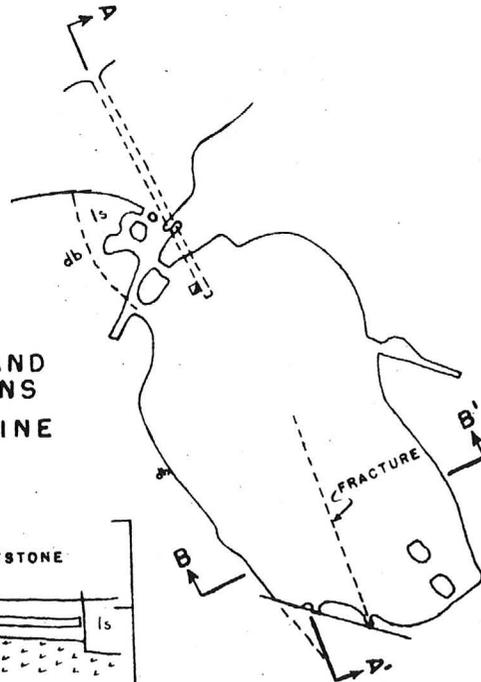


Figure 26 - Plans and sections, No. 1, Home and Tony mines,
American Asbestos Cement Corp.

IC 7706

Home mine. - The Home mine is on a small limestone-capped mesa that is underlain by a diabase sill more than 50 feet below the limestone. On the north side of the mesa, a discordant sill cuts off the favorable horizons. A 2-foot-wide, nearly vertical, diabase dike cuts through the deposit on a strike of N. 65° W. This deposit is said to have been one of the first worked in the district, but the venture ceased when it was determined that the quantity of hand-cobbed grades was insufficient to maintain operations. The shorter grades were thrown into the backfill.

In February 1952 the American Asbestos Cement Corp. reopened the mine and produced a considerable tonnage of short fiber. The deposit, as outlined by the stoped area, has a maximum length of 250 feet and an average width of 150 feet (fig. 26). Operations were suspended about July 1952. The serpentine zone averaged 12 to 16 inches in thickness and contained about 2 to 3 inches of fiber, which was soft to semisoft. Very little No. 2 length was recovered. Where the zone contained better-than-average fiber, the ore was recovered by usual stoping methods. However, the ore zone in much of the area was 24 to 30 inches thick and contained very short fiber. In this area, development drifts were driven but only the thickness of the zone on the sides was mined. The broken ore from these horizontal slots was loaded into mine cars using a scraper.

Buckhorn mine. - The Buckhorn mine is situated about 2 miles southwest of the No. 1 mine along the south side of Buckhorn Mesa. The ore zone is exposed in an outcrop that is approximately 43 feet stratigraphically below the base of the algal member. Two asbestos zones about 3 feet apart usually are present. The top of an essentially concordant diabase sill lies 1 to 2 feet below the lower asbestos zone. Mineralization is exposed almost continuously along approximately 1,300 feet of outcrop. The deposit has been opened for a length of 800 feet by 15 adits and by extensive stopes (fig. 27). Most of this work was done by the Triangle Asbestos Co.

A large part of the stoped area is inaccessible owing to backfill. Examination of the accessible adit and stope faces shows veins totaling 1 to 3 inches of fiber, most of which is soft and of good tensile strength. Obviously, during past operations much of No. 1 and No. 2 grades was recovered. Of the fiber that now can be seen in the stope faces, only a small percentage is of spinning grade.

Late in 1952 the company, with Defense Minerals Exploration Administration assistance, diamond-drilled for extensions of the deposit northwest of the mine faces. Marginal ore was indicated in the central portion of the area, and in March 1954 an adit was being driven to test this mineralization. Because of the slight dip of the bedding northwest into the mesa, this adit was begun in diabase, several feet below the ore zone at the outcrop.

Tony mine. - The Tony deposit is localized in a trough 230 feet wide, which is formed between two gentle rolls of the underlying diabase sill. The ore zone is at the base of the algal member and 5 to 6 feet above the sill. The formation dips northward (into the hill) at about 10°. A northwest-trending, vertical, strike-slip fault cuts the ore body. The deposit has been mined by interconnecting stopes for a width and length of about 120 feet (fig. 26). The asbestos observed was weathered and weak.

Wolf Springs prospect. - The Wolf Springs adit has explored mineralization in a tilted limestone block that is discordantly truncated by an underlying diabase sill cut off southward in the hill and eastward by topography. The outcrop exposed

From the desk of

FRANK P. KNIGHT

1-12-60

Vernon Smith and a man named Lynn called with two other men to talk about what to do with their asbestos property near Cherry Creek.

Ammon Smith was president of American Asbestos Cement Corp when it bought out Gila' Asbestos Co. in 1951. Vance' Thornburg took over the property in 1954 but these men seem to have it back. They want to get in on the new government program but are concerned about contracting the operation of the property since they cannot give it supervision. Recommended leasing it.



Payroll
Sept - 1951

American Asbestos Cement Corp.

The property of the American Asbestos Cement Corp., held by asbestos locations, consists of 93 contiguous claims (fig. 25). This group, owned by Vance Thornburg and associates, is situated in secs. 24, 25, 26, 35 and 36, T. 8 N., R. 14 E., and

21/ T8 and westward by Shride 1943. T16 and 20 by Stewart 1954.

22/ Wilson, E. D., Asbestos Deposits of Arizona: Arizona Bureau of Mines, Bull. 126, 1928, p. 71.

IC 7706

ASBESTOS SURVEY

NAME OF PROPERTY AMERICAN ASBESTOS CEMENT CO.

OWNER - Name AMERICAN ASBESTOS CEMENT CO. OPERATOR: Name SAME

Address 115 WEST OAK ST., GLOBE Address _____

TYPE OF ORE: CHRYSOCTILE

Length of Fibre 4" AND UNDER

Soft SOFT, SEMI SOFT Hard _____

PRODUCTION (tons of crude ore)

Past _____

Present NONE (ARE DEVELOPING EXTENSION OF BUCKHORN MINE)
Monthly

Estimated Future Production _____
Monthly

ORE RESERVES:

Ore in Place UNKNOWN -

BUCKHORN DRILLING PROGRAM - 1200 T (@ 250' x 600' AREA)
Probable Ore 5% #1, 8% #2, 14% #3, 75% #4 & UNDER

IS YOUR ORE THE TYPE THAT COULD BE MILLED WITH OTHER ORE IN YOUR DISTRICT?

YES

MILL CAPACITY

SOME 283 REST SHORTS, 16 T/8 HR Signed: _____

ABOUT 4 T FIBER/8 HR ← THIS IS
LIMITING FACTOR

March, 1954

Arizona Department of Mineral Resources
Phoenix, Arizona

American Asbestos Cement Co.

Owner and operator—American Asbestos Cement Co.
115 West Oak St.,
Globe, Arizona.

This property is not now producing, and the mill is shut down. To start the mill would require some work and one motor, at a minimum.

The profitable and productive Number One Mine is now exhausted. This was the mine which recovered the investment for the originators, and made the property attractive to Mr. Smith who bought it from ~~Mrs.~~ Marshall, Phelan, and Kohl. Mr. Kohl remained with the operation in an employee capacity as manager. Recently Mr. Smith sold ~~his~~ his stock to Vance Thornberg or Thornberg Uranium, on what conditions, and whether the deal is entirely terminated, or subject to confirmation is not known. Two miners are running a tunnel under the extension of the Buckhorn Mine, developed by a diamond drilling program in which the government was interested. They plan to raise up to the ore by the end of the first week in April. Thornberg was apparently primarily interested in the uranium possibilities and is putting his major efforts into that end of the property.

The mill has a capacity of about 4 tons of fiber per 8 hours. Of normal ore of #2 and #3, with the rest shorts and serpentine, the capacity is about 16 tons of ore per 8 hours.

Past production

1951--#1-35.7 tons

#2-92.4 tons

#3-35.8 tons

#4-106.2 tons

1952--#1- 2.4 tons

#2- 10.6 tons

#3- 16.8 tons

1F-268 tons (#3 and #4 fiberized)

1953--#1- none this is probably hold over from 1952 production

#2- 2.0 tons

#3- 4.2 tons

Crude Reserves.

Wolf Springs

The Number Two and the ~~Tony~~ mines have exploration tunnels in good fiber, with some good #1, 2, and 3, but not sufficient work has been done to call any particular tonnage as blocked out. 10 tons could safely be assigned to these two properties, and it might be considerably higher.

Mr. Mel Stockman, now with the company again, was Mine Supt. at the time of at least part of the operation under Mr. Smith, and during the drilling program. He said that he had figured the reserves blocked out by the drilling program on the extension of the Buckhorn, and the reserves would figure as 1,200 tons of fiber, 5% #1, 8% #2, 12% #3, and 75% #4 and under. This of course was not open to check by the writer.

★American Asbestos Cement Corp. expects to complete a \$75,000, 5-ton-per-day mill at its Gila County mines by December 1. The corporation has been authorized for a \$123,869 government loan for initial survey and drilling. More than 18,000 ft. of drilling is planned in 2,000 acres of deposits.

ASBESTOS SURVEY

NAME OF PROPERTY _____

OWNER - Name _____ OPERATOR: Name _____

Address _____ Address _____

TYPE OF ORE: _____

Length of Fibre _____

Soft _____ Hard _____

PRODUCTION (tons of crude ore)

Past _____

Present _____
Monthly

Estimated Future Production _____
Monthly

ORE RESERVES:

Ore in Place _____

Probable Ore _____

IS YOUR ORE THE TYPE THAT COULD BE MILLED WITH OTHER ORE IN YOUR DISTRICT?

Signed: _____

March, 1954

Arizona Department of Mineral Resources
Phoenix, Arizona

T 14+15E
 8N
 SECTS 24, 14E
 + 19+20, 15E
 IC 7700 P 68

