

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MINERAL SURVEY NO. 4559

ARIZONA

Land District.

FIELD NOTES

Of The Survey Of The Mining Claim Of

KENNECOTT COPPER CORPORATION

Known As The

LAVA NO. 1 LODE

MINERAL CREEK Mining District,

PINAL County, ARIZONA

Section 12, Township 3 S, Range 13 E

Surveyed under order dated March 20, 1961

by OSCAR T. SMITH
Mineral Surveyor.

Claim located December 21, 1955

Survey commenced August 7, 1961

Survey completed August 11, 1961

Address of claimant Ray, Arizona

DATES OF AMENDED LOCATIONS

August 6, 1959

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY

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REPORT OF THE

COMMISSION ON THE ORGANIZATION OF THE

DEPARTMENT OF CHEMISTRY

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Chains

This survey was made with a Keuffel & Esser Transit No. 131481, with horizontal limb 5 ins. diam., having two double opposite verniers, and full vertical circle 5 ins. diam. having one double vernier; the verniers read to one minute of arc; the eyepiece is equipped with a colored shade set in the dust shutter for making direct observations upon the sun. The instrument was in good condition at the time of the survey and all adjustments were in good order.

All azimuths in this record were determined by the method of deflection angles referred to the meridian determined by the following observations:

August 9, 1961, at cor. No. 2 of the Lava No. 1 lode, in latitude $33^{\circ}10'26''$ N., and longitude $110^{\circ}58'55''$ W., I make a series of six altitude observations upon the sun for azimuth at approximately equal time intervals, three each with the telescope in direct and reversed positions, observing opposite limbs of the sun, and reading the horizontal angle from a reference point about 400 ft., Southwest to the sun.

Mean time of observation, 105th meridian standard time = $4^h13^m40^s$ P.M.

Declination of sun at mean time of observation = $15^{\circ}42'31''$ N.

Mean observed vertical angle to sun's center = $30^{\circ}55'12''$

Mean horizontal angle from reference point to sun's center = $106^{\circ}45'50''$ S.W.

The bearing to reference point = S. $17^{\circ}35'43''$ E.

The lines were measured with a Keuffel & Esser steel tape 500 ft. in length graduated every foot for 500 ft., and steel tape 10 ft. in length, graduated to feet, tenths and hundredths; both tapes were compared with a standard 100 ft. invar steel tape at the time of beginning the survey, and found correct.

All lines and connections of this survey were run by direct methods.

The magnetic declination observed at each corner of the survey gave a uniform value of $14^{\circ}30'$ E.

SURVEY NO. 4559

Feet

LAVA NO. 1 LODE

At cor. No. 1 of the Lava No. 1 lode

Set an iron pipe 3 ft. long, 1-1/2 in. diam., 18 ins. in the ground, with brass cap mkd. L1-1-4559; from which

The 1/4 sec. cor. of secs. 11 and 12, T. 3 S., R. 13 E., G. & S. R. M., bears N. $18^{\circ}13'30''$ W., 856.25 ft. dist., an iron post 1 in. diam., with brass cap, 10 ins. above ground, firmly set and properly mkd. and witnessed as described in the official record.

Chains Feet	
	Cor. No. 2 Sur. No. 2465 Queen Lil lode bears S. $33^{\circ}21'20''$ E., 177.78 ft. dist. No local bearing objects or bearing trees available. Thence N. $83^{\circ}08'$ E.
49.87	Intersect line 1-2 and 1-2 Sur. No. 2465 Black Warrior and Queen Lil lodes at a point from which cors. Nos. 1 and 2 bears S. $17^{\circ}20'30''$ E., 736.80 ft. dist. and 161.82 ft. dist.
950.00	Cor. No. 2. Set an iron pipe 3 ft. long, 1-1/2 in. diam., 18 ins. in the ground with brass cap mkd L1-2-4559; from which Cor. No. 4 Sur. No. 2572 A Sleeper lode, bears S. $2^{\circ}42'30''$ E., 162.16 ft. dist. No local bearing objects or bearing trees available. Thence S. $17^{\circ}36'$ E.
116.83	Intersect line 4-5 Sur. No. 2572A Sleeper lode at a point from which cor. No. 4 bears S. $28^{\circ}42'$ W., 57.60 ft. dist.
164.64	Intersect line 2-3 Sur. No. 2465 Queen Lil lode at a point from which cor. No. 2 bears S. $83^{\circ}18'$ W., 901.37-ft. dist.
200.00	Lode line; discovery shaft bears S. $83^{\circ}08'$ W., 650.00 ft. dist.
400.00	Cor. No. 3. Set an iron pipe 3 ft. long, 1-1/2 in. diam., 18 ins. in the ground, with brass cap mkd. L1-3-4559; from which Cor. Nos. 3 and 3 Sur. No. 2572A Sleeper and Copper Nugget lodes bears N. $71^{\circ}04'20''$ W., 212.38 ft. dist. Thence S. $83^{\circ}08'$ W.
205.47	Intersect line 3-4 Sur. No. 2572A Copper Nugget lode at a point from which cor. No. 3 bears N. $1^{\circ}54'$ E., 93.51 ft. dist.
258.32	Intersect line 2-3 Sur. No. 2572A Sleeper lode at a point from which cor. No. 3 bears N. $29^{\circ}07'$ E., 114.21 ft. dist.
746.34	Intersect line 4-5 Sur. No. 2572A Sweepstake lode at a point from which cor. No. 4 bears N. $45^{\circ}00'30''$ W., 187.99 ft. dist.

Chains Feet	
808.29	Intersect line 1-2 Sur. No. 2572A Copper Nugget lode at a point from which cor. No. 2 bears N. 2°05' E., 189.72 ft. dist.
901.95	Intersect line 1-2 Sur. No. 2465 Black Warrior lode at a point from which cor. No. 2 bears N. 17°20'30" W., 704.01 ft. dist.
950.00	Cor. No. 4. Set an iron pipe 3 ft. long, 1-1/2 in. diam., 18 ins. in the ground, with brass cap mkd. L1-4-4559; from which Cor. No. 4 Sur. No. 2572A Sweepstake lode bears N. 23°46' E., 171.83 ft. dist. Cor. No. 2 Sur. No. 2572A Copper Nugget lode bears N. 35°33' E., 253.85 ft. dist. No local bearing objects or bearing trees available. Thence N. 17°36' W.
66.10	Intersect line 3-4 Sur. No. 2572A Sweepstake lode at a point from which cor. No. 4 bears N. 43°26' E., 129.80 ft. dist.
200.00	Lode line; discovery shaft bears N. 83°08' E., 300.00 ft. dist.
400.00	Cor. No. 1, and the place of beginning.

AREAS

	Acres
Total area, Lava No. 1 lode	8.571 ✓
Area in conflict with-	
Sur. No. 2465 Black Warrior lode	.442 ✓
Sur. No. 2465 Black Warrior lode, exclusive of its conflicts with Sur. No. 2572A, Sweepstake lode	.351 ✓
Sur. No. 2572A Sweepstake lode	.432 ✓
Sur. No. 2572A Copper Nugget lode	1.935 ✓
Sur. No. 2572A Copper Nugget lode, exclusive of its conflict with Sur. No. 2572A Sweepstake lode	1.889 ✓
Sur. No. 2572A Sleeper lode	.826 ✓
Sur. No. 2572A Sleeper lode, exclusive of its conflict with Sur. No. 2572A Copper Nugget lode	.770 ✓
Sur. No. 2465 Queen Lil lode	3.317 ✓
Sur. No. 2465 Queen Lil lode, exclusive of its conflict with Sur. No. 2572A Sleeper lode	3.294 ✓

LOCATION

This survey is located in the SW 1/4 of Sec. 12, T. 3 S., R. 13 E., G. & S. R. M.

The survey of the Lava No. 1 lode is identical with the respective location or amended location as marked on the ground.

Chains:

EXPENDITURES

The improvements and the value of the labor and improvements made upon or for the benefit of each of the lode locations embraced in said mining claim by the claimant or its grantors are as follows:

- No. 1 The discovery shaft of the Lava No. 1 lode, the center of which being the discovery point, is on the center line 300 ft. from the center of line 4-1; 8x8 ft., 6 ft. deep.
Value, \$192.00
- No. 2 A diamond drill hole, the center of which bears N. 14°30' E., 180 ft. from cor. No. 4 Lava No. 1 lode; 655 ft. deep.
Value, \$3,835.00

OTHER IMPROVEMENTS :

None.

OTHER CORNER DESCRIPTIONS AND SUPPLEMENTAL DATA

Sur. No. 2465 Black Warrior lode: Cors. Nos. 1 and 2 are rocks firmly set and properly mkd. Line 1-2 was found to be N. 17°20'30" W., 1041.15 ft. instead of N. 17°40' W., 1076.00 ft. as approved.

Sur. No. 2572A Sweepstake lode: Cors. Nos. 3, 4 and 5 are 4x4 in. post firmly set and properly mkd. Line 3-4 was found to be N. 43°26' E., 751.50 ft. instead of N. 43°25' E., 746.46 ft. as approved. Line 4-5 was found to be S. 45°00'30" E., 595.67 ft. instead of S. 45°39' E., 592.1 ft. as approved.

Sur. No. 2572A Copper Nugget lode: Cors. Nos. 1 and 2 are destroyed. Cors. Nos. 3 and 4 are 4x4 in. post firmly set and properly mkd. Lines 1-2, 2-3 and 3-4 are shown as approved.

Sur. No. 2572A Sleeper lode: Cor. No. 2 pile of rock, post has been destroyed. Cor. No. 3 reset by owners with a 4x4 in. post firmly set, no markings. Cors. Nos. 4 and 5 destroyed, reset by owners with 1 in. iron pin 12 ins. above ground, no markings. Line 2-3 was found to be N. 29°07' E., 942.30 ft., instead of N. 29°04' E., 933.60 ft. as approved. Line 3-4 was found to be N. 30°12' W., 174.15 ft. instead of N. 30°32' E., 177.0 ft. as approved. Line 4-5 was found to be N. 28°42' E.; 369.86 ft. instead of N. 28°22' E., 370.3 ft. as approved.

Sur. No. 2465 Queen Lil lode: Cor. No. 1 destroyed, reset by owners with a 4x4 in. post 3 ft. above ground, firmly set and properly mkd. Cors. Nos. 2 and 3 rocks firmly set and properly mkd. Line 1-2 was found to be S. 17°20'30" E., 595.18 ft. instead of S. 17°40' E., 600.00 ft. as approved. Line 2-3 was found to be N. 83°18' E., 1498.34 ft. instead of N. 83°04' E., 1500.00 ft. as approved.

FIELD ASSISTANTS

Name	Capacity
Lee Cook	Chainman

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CERTIFICATE OF SURVEYOR

August 5, 1964

I, OSCAR T. SMITH

Mineral Surveyor, hereby certify upon honor that in pursuance of an order received from the office
Cadastral Engineer, at Phoenix, Arizona

dated March 20, 1961, I have faithfully and correctly executed the survey of

the mining claim of Kennecott Copper Corporation

known as the Lava No. 1

situate in Mineral Creek Mining District, Pinal County, Sec. 12
(Lode, placer, or mill site)

T. 3 S., R. 13 E., G. & S. R. Meridian, Arizona, and
(State)

designated as Survey No. 4559, which is represented in the foregoing field notes as having been
executed by me and under my direction, and that said survey has been made in strict conformity with said order,
the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner
described in the foregoing field notes, and I do further certify that the labor expended and improvements made

upon or for the benefit of the lode location(s) embraced in the said mining claim by
(Lode or placer)

claimant(s) or its grantors are fully stated in my report therein, and that the character,
extent, location, and itemized value thereof are specified therein with particularity and full detail, and that no
portion of, or interest in, said labor and improvements so credited to this claim has been included in the estimate
of expenditures upon any other claim.

Globe, Arizona
(Place)

Oscar T. Smith
(Mineral Surveyor)

CERTIFICATE OF APPROVAL

Bureau of Land Management, Arizona State Office
(Office)

Phoenix, Arizona October 6, 1964
(Place) (Date)

The foregoing field notes of mineral survey No. 4559, in Section 12

T. 3 South, R. 13 East, Gila & Salt River Meridian,

Arizona, executed by Oscar T. Smith, Mineral Surveyor,
(State)

under order dated March 20, 1961, having been critically examined and the necessary
corrections made prior to their certification by the surveyor, the field notes and the survey therein described
are hereby approved.

Raymond C. Cleghorn
Raymond C. Cleghorn

Acting State Director
(Title)

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of field notes of the above described mineral survey No. _____
is a true copy of the original field notes.

(Title)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CERTIFICATE OF SUPPLY

August 3, 1981

OSCAR T. SMITH

Contract Engineer, Bureau of Land Management, Phoenix, Arizona

March 30, 1981

Inventory of Minerals, Final Report, No. 13

Arizona

The following is a list of the minerals identified in the above mentioned report. The minerals listed are: ...

Phoenix, Arizona

CERTIFICATE OF APPROVAL

Inventory of Minerals, Final Report, No. 13

Arizona

March 30, 1981

The following is a list of the minerals identified in the above mentioned report. The minerals listed are: ...

CERTIFICATE OF REVISION

Inventory of Minerals, Final Report, No. 13

Arizona