

Form 4-683  
(April 1959)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Mineral Survey Number

4577

State

Arizona

Land District

Arizona

# FIELD NOTES

Of the Survey of the Mining Claim of *(Name & address of Claimant)*

Phelps Dodge Corporation  
c/o Evans, Kitchel & Jenckes, Attorneys  
363 N. 1st Ave.  
Phoenix, Arizona

Known as the *(Name of group, if any)*

Modoc Group

CONSISTING OF LOCATIONS NAMED AND LOCATED AS FOLLOWS

NAME OF LOCATION	DATE	
	LOCATED	AMENDED
Modoc No. 1 Placer Mining Claim	8/22/55	
Modoc No. 2 Placer Mining Claim	8/22/55	

Mining District		County		Section
Greenlee-Gold Mountain		Greenlee		24
Township	Range	Meridian	Surveyed under order dated	
4 S.	29 E.	Gila and Salt River	August 24, 1961	
Survey commenced	Survey completed	Name of Mineral Surveyor		
Aug. 24, 1961	Sept. 6, 1961	Sidney C. Kain		

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FIELD NOTES

Section 16, T12N, R10E, S12E  
Custer National Monument  
Custer State Park  
Custer, South Dakota  
August 15, 1963

Page 1

Section 16, T12N, R10E, S12E

Section	Area	Remarks
16	1600	...
16	1600	...

Section	Area	Remarks
16	1600	...
16	1600	...

SURVEY NO. 4577

-1-

Chains

This survey was made with a K. and E., one minute optical theodolite, No. 612726. Because of its accuracy, this instrument was used for all work except sun azimuth observations. A K. and E. one minute transit, No. 81016 was used for altitude observations on the sun. Both instruments conform to the standards of the Bureau of Land Management and were in good condition and adjustment at the time of survey.

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

August 25, 1961 at Cor. No. 1 of the Modoc No. 1 placer in latitude  $33^{\circ} 04.5'$  N. and longitude  $109^{\circ} 17.5'$  W., I made a series of six observations on the sun for azimuth at approximately equal time intervals, three direct and three reverse, observing opposite limbs of the sun and reading horizontal angles from a reference point at the center of section 24.

True bearing to the reference point, N.  $89^{\circ} 42'$  W.

The lines were measured with a Lufkin steel tape 300 feet in length, graduated every foot with the first and last feet graduated to tenths and hundredths; the tape was compared with a 100 and 200 foot steel standard tape at the time of the beginning of the survey and found to be 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  $14^{\circ}$  E.

Feet

## MODOC NO. 1 PLACER

Beginning at Cor. No. 1 of the Modoc No. 1 placer, identical with the E.  $\frac{1}{4}$  sec. cor. of Sec. 24, T. 4 S., R. 29 E., G. & S.R. Meridian, Arizona, a steel capped pipe,  $1\frac{1}{4}$  ins. diam., 6 ins. of it above ground,  $5\frac{1}{2}$  ft. E. of a mound of stone, from which

Cor. No. 2, Sur. No. 949 Wonderful Mine lode bears N.  $10^{\circ} 20'$  E., 183.8 ft. dist.

Cor. No. 1, Sur. No. 949 Wonderful Mine lode bears N.  $77^{\circ} 56'$  W., 242.2 ft. dist.

Cor. No. 2, Sur. No. 1545 Midnight lode bears N.  $0^{\circ} 43'$  E., 475.5 ft. dist.

Thence N.  $89^{\circ} 52'$  W.

- 150.0 Small saddle, slopes E. and W.
- 340.1 Intersect line 6-1, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 6 bears S.  $64^{\circ} 14'$  W., 184.9 ft. dist.
515. Small wash, course S.

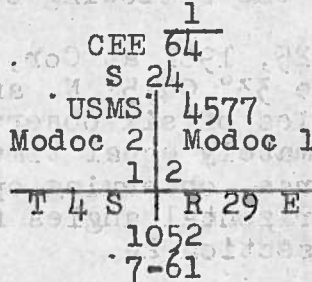
Feet  
522.8

Intersect line 5-6, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 6 bears S. 11° 16' E., 82.4 ft. dist.

655.0

Cor. No. 2, identical with Cor. No. 1 of the Modoc No. 2 placer of this survey and identical with the point for the CEE 1/64 Cor. of sec. 24.

Set a steel pipe, 30 ins. long, 1 1/4 ins. diam., 18 ins. in the ground, with aluminum cap mkd.



from which

A mound of stone bears S. 70° W., 7.8 ft. dist.

Cor. No. 3, Sur. No. 1545 Midnight lode bears N. 81° 30' 30" W., 435.6 ft. dist.

Cor. No. 6, Sur. No. 949 Wonderful Mine lode bears S. 61° 19' E., 169.1 ft. dist.

Thence N. 0° 12' E.

226.3

Intersect line 2-3, Sur. No. 1545 Midnight lode at a point from which Cor. No. 3 bears S. 69° 26' W., 461.0 ft. dist.

652.1

Intersect line 5-6, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 5 bears N. 11° 16' W., 419.4 ft. dist.

780.

Top of ridge, bears E. and W.

815.

Road, bears E. and W.

844.8

Intersect line 4-1, Sur. No. 1545 Midnight lode at a point from which Cor. No. 4 bears S. 69° 21' W., 462.1 ft. dist.

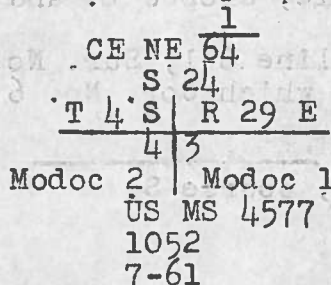
1103.7

Intersect line 4-5, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 5 bears S. 64° 14' W., 92.7 ft. dist.

1309.6

Cor. No. 3, identical with Cor. No. 4 of the Modoc No. 2 placer of this survey and identical with the point for the CE NE 1/64 Cor. of sec. 24.

Set a steel pipe, 30 ins. long, 1 1/4 ins. diam., 18 ins. in the ground, with aluminum cap mkd.



SURVEY NO. 4577

<p><del>XXXXX</del> Feet</p>	<p>from which A mound of stone bears South, 38 ft. dist.  Cor. No. 5, Sur. No. 949 Wonderful Mine lode bears S. 18° 50' W., 260.4 ft. dist.  Cor. No. 4, Sur. No. 1545 Midnight lode bears S. 34° 39' 30" W., 763.18 ft. dist.  Thence S. 89° 48' E.</p>																																				
422.8	Intersect line 3-4, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 3 bears N. 64° 14' E., 36.3 ft. dist.																																				
458.6	Intersect line 2-3, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 3 bears N. 11° 16' W., 16.2 ft. dist.																																				
651.4	<p>Cor. No. 4, identical with the N 1/16 Cor. on the E. side of sec. 24, from which</p> <p>A mound of stone bears South, 31 ft. dist.</p> <p>The NE. Cor. of sec. 24 bears N. 0° 03' E., 1308.7 ft. dist.</p> <p>Cor. No. 3, Sur. No. 949 Wonderful Mine lode bears N. 85° 15' W., 196.5 ft. dist.</p> <p>Cor. No. 1, Sur. No. 1545 Midnight lode bears S. 1° 25' 30" E., 214.29 ft. dist.</p> <p>This corner falls over the edge of a cliff where a monument cannot be set.</p> <p>Thence S. 0° 03' W.</p>																																				
19.0	<p>Point for witness cor. No. 4</p> <p>Set an aluminum cap cemented in rock, mkd.</p>																																				
	<table border="0" style="margin-left: auto; margin-right: auto;"> <tr><td></td><td>W</td><td>C</td><td></td></tr> <tr><td></td><td>N</td><td>1/16</td><td></td></tr> <tr><td>S</td><td>24</td><td> </td><td>S 19</td></tr> <tr><td>RM</td><td></td><td> </td><td>Cor 19 N</td></tr> <tr><td></td><td>4</td><td> </td><td></td></tr> <tr><td>Modoc</td><td>1</td><td> </td><td></td></tr> <tr><td></td><td>T</td><td>4</td><td>S</td></tr> <tr><td>R</td><td>29</td><td>E</td><td>R 30 E</td></tr> <tr><td></td><td></td><td></td><td>1052</td></tr> </table>		W	C			N	1/16		S	24		S 19	RM			Cor 19 N		4			Modoc	1				T	4	S	R	29	E	R 30 E				1052
	W	C																																			
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162.5	North side of a 40 ft. turn-round access road.																																				
216.3	Intersect line 4-1, Sur. No. 1545 Midnight lode at a point from which Cor. No. 1 bears N. 69° 21' E., 5.9 ft. dist.																																				
297.	Top of ridge, bears NW. and SE.																																				
835.3	Intersect line 2-3, Sur. No. 1545 Midnight lode at a point from which Cor. No. 2 bears N. 69° 26' E., 5.9 ft. dist.																																				

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SURVEY NO. 4577

-4-

963.9	Intersect line 2-3, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 2 bears S. 11° 16' E., 167.2 ft. dist.
1143.7	Intersect line 1-2, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 2 bears N. 64° 14' E., 36.4 ft. dist.
1308.7	Cor. No. 1 and place of beginning.

## MODOC NO. 2 PLACER

Beginning at Cor. No. 1 of the Modoc No. 2 Placer, identical with Cor. No. 2 of the Modoc No. 1 placer of this survey.

Thence N. 89° 52' W.

583. Small wash, course SE.

655.0 Cor. No. 2, identical with the CE 1/16 Cor. of sec. 24.

Set a steel pipe, 30 ins. long, 1 $\frac{1}{4}$  ins. diam., 18 ins. in the ground, with aluminum cap mkd.

CE 1/16		
S 24		
T 4 S	MODOC 2	
R 29 E	2	

1052

7-61

from which

A mound of stone bears S. 60° W., 15.1 ft. dist.

The center  $\frac{1}{4}$  cor. of sec. 24 bears N. 89° 52' W., 1310.0 ft. dist.

Cor. No. 3, Sur. No. 1545 Midnight lode bears N. 74° 22' E., 232.8 ft. dist.

Thence N. 0° 21' E.

71. Small wash, course SE.

263. Small wash, course SE.

505. Same wash, course SW.

937.2 Road, bears E. and W.

1015.2 Top of ridge, bears NW. and SE.

1310.6 Cor. No. 3, identical with the NE 1/16 cor. of sec. 24.

Set a steel pipe, 30 ins. long, 1 $\frac{1}{4}$  ins. diam., 18 ins. in the ground, with aluminum cap mkd.

SURVEY NO. 4577

Feet

NE 1/16  
T 4 S | R 29 E

USMS 4577  
MODOC 2

1052  
7-61

from which  
A mound of stone bears S. 34° W., 46.0 ft. dist.

The CN 1/16 cor. of Sec. 24 bears N. 89° 48' W., 1302.8 ft. dist.

Cor. No. 4, Sur. No. 1545 Midnight lode bears S. 19° 03' E., 666.9 ft. dist.

Thence S. 89° 48' W., 1302.8 ft. dist.

640. Small wash, course NE.

651.4 Cor. No. 4, identical with Cor. No. 3 of the Modoc No. 1 placer of this survey.

Thence S. 0° 12' W.

205.9 Intersect line 4-5, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 5 bears S. 64° 14' W., 92.7 ft. dist.

464.8 Intersect line 4-1, Sur. No. 1545 Midnight lode at a point from which Cor. No. 4 bears S. 69° 21' W., 462.1 ft. dist.

494.6 Road, bears E. and W.

529.6 Top of ridge, bears E. and W.

657.5 Intersect line 5-6, Sur. No. 949 Wonderful Mine lode at a point from which Cor. No. 5 bears N. 11° 16' W., 419.4 ft. dist.

1083.3 Intersect line 2-3, Sur. No. 1545 Midnight lode at a point from which Cor. No. 3 bears S. 69° 26' W., 461.0 ft. dist.

1309.6 Cor. No. 1 and place of beginning.

AREAS

Acres

Total area, Modoc No. 1 placer ----- 19.631

Area in conflict with Sur. No. 1545 Midnight lode ----- 9.280

Sur. No. 949 Wonderful Mine lode ----- 14.866

Sur. No. 949 Wonderful Mine lode exclusive of its conflict with Sur. No. 1545 Midnight lode ---- 7.137

Total area, Modoc No. 2 placer ----- 19.644

Area in conflict with Sur. No. 1545 Midnight lode ----- 6.122

Sur. No. 949 Wonderful Mine lode ----- 0.432

Sur. No. 949 Wonderful Mine lode exclusive of its conflict with Sur. No. 1545 Midnight lode ---- 0.352

LOCATION

This survey is located in the NE 1/4 of Sec. 24, T. 4 S., R. 29 E., G. & S.R. Meridian, Arizona.

The survey of the Modoc No. 1 and No. 2 placers is identical with the respective location or amended location as marked on the ground.

EXPENDITURES

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

No. 1 The discovery cut and bench stripping to metallurgical limestone, the center of which bears approximately S. 43° W., 220 ft. dist. from Cor. No. 4 of the Modoc No. 1 placer, approximately 300 ft., by 200 ft. wide.

Value ----- \$800.

No. 2 A cut, the NW. edge of which bears S. 30° 38' E., 250 ft. dist. from Cor. No. 3 of the Modoc No. 1 placer, 30 ft. long, 2 ft. wide and 4 1/2 ft. deep, running S. 39° E.

Value ----- \$50.

No. 1 A tunnel, caved, bears S. 33° 27' W., 369 ft. dist. from Cor. No. 4 of the Modoc No. 2 placer, about 10 ft. deep, 10 ft. wide and 20 ft. long, running S. 60° E.

No. 2 A cut, the center of which bears N. 17° 59' E., 542 ft. dist. from Cor. No. 2 of the Modoc No. 2 placer, 6 ft. long, 6 ft. wide and 4 ft. deep.

Value ----- \$50.

No. 3 A cut bears N. 20° 59' E., 540 ft. dist. from Cor. No. 2 of the Modoc No. 2 placer, 23 ft. long, 5 1/2 ft. wide and 4 ft. deep, running S. 40° W.

Value ----- \$100.

NOTE: Limestone is exposed in cliffs and ledges through both claims.

An interest in common improvement described as follows:

Two and one-half miles of access road to U.S. Hwy. 666.

Value of road \$1400.

Value of one-half int. \$700.

This road is necessary to the development of the two claims. Five hundred dollars or over has been expended in this improvement in such a manner as tends to the development of each placer of this survey subsequent to its location and to the time since common ownership and continuity have prevailed; therefore an undivided one-half interest in its value is hereby credited to each of the said placers.

Except as stated above no portion of or interest in this improvement has been credited heretofore as patent expenditure to any placer claim.

OTHER IMPROVEMENTS

A shaft the center of which bears N. 19° 49' W., 453 ft. dist. from Cor. No. 1 of the Modoc No. 2 placer, 4 ft. by 6 ft. by 40 ft. deep.

Claimant unknown.

A shaft the center of which bears N. 32° 58' W., 433 ft. dist. from Cor. No. 1 of the Modoc No. 2 placer, 4 ft. by 6 ft. by 8 ft. deep.

Claimant unknown.



## Chains

A cut the mouth of which bears N. 13° 46' W. of Cor. No. 1 of the Modoc No. 2 placer, 435 ft. dist., 6 ft. wide, 12 ft. long and 8 ft. deep.

Claimant unknown

A tunnel, the mouth of which bears N. 3° 06' W., 373 ft. dist. from Cor. No. 1 of the Modoc No. 2 placer, running North.

Claimant unknown.

A large cut and tunnel, collapsed, the mouth of which bears N. 18° 35' E., 585 ft. dist. from Cor. No. 2 of the Modoc No. 1 placer.

Claimant unknown.

A tunnel, the mouth of which bears N. 22° 29' E., 567 ft. dist. from Cor. No. 2 of the Modoc No. 1 placer.

Claimant unknown.

A tunnel, the mouth of which bears N. 27° 30' E., 511 ft. dist. from Cor. No. 2 of the Modoc No. 1 placer.

Claimant unknown.

## OTHER CORNER DESCRIPTIONS AND SUPPLEMENTAL DATA

Sur. No. 1545 Midnight lode; Cors. No. 2 and 3 are mounds of stone. Cor. No. 1 is a steel pole in a mound of stone. Cor. No. 4 is a 4 X 4 in. post set in a mound of stone. Line 1-2 was found to be S. 0° 03' W., 619.0 ft. instead of South 617.87 ft. as approved. Line 2-3 was found to be S. 69° 26' W., 1166.1 ft. instead of S. 69° 40' W., 1165.1 ft. as approved. Line 3-4 was found to be N. 0° 08' E., 617.5 ft. instead of North, 617.87 ft. as approved. Line 4-1 was found to be N. 69° 21' E., 1165.8 ft. instead of N. 69° 40' E., 1165.1 ft. as approved.

Sur. No. 949 Wonderful Mine lode; Cors. Nos. 1, 2 and 6 are mounds of stone. Cors. Nos. 3, 4 and 5 have been destroyed. Line 6-1-2 was found to be N. 64° 14' E., 559.2 ft. instead of N. 65° E., 600 ft. as approved. The rest of the claim lines were traced out using the interior angles as approved thus making line 2-3 N. 11° 16' W., 1167.0 ft. instead of N. 10° 30' W., 1167.0 ft. as approved. Line 3-4-5 became S. 64° 14' E., 559.2 ft. instead of S. 65° W., 600.0 ft. as approved. Line 5-6 became S. 11° 16' E., instead of S. 10° 30' E. as approved. The tie from Cor. No. 1 of the Modoc No. 1 placer to Cor. No. 1, Sur. No. 494 Wonderful Mine lode was found to be N. 77° 56' W., 242.2 ft. instead of N. 76° W., 248.0 ft. as approved.

The cor. of secs. 13, 18, 19 and 24 is a steel pipe, 3/4 in. in diam., set on the east side of a mound of stone. The cor. of secs. 13, 14, 23 and 24 is a General Land Office brass capped iron post, properly marked and set.

The 1/4 sec. cor. of secs. 24 and 25 is a stone, properly marked and set with a mound of stone.

The N. one-half of the east boundary of sec. 24 was found to be N. 0° 03' E., 2617.4 ft. instead of North, 2640.0 ft. as approved.

The N. boundary of sec. 24 was found to be N. 89° 43' W., 5183.9 ft. instead of West, 5303.1 ft. as approved.

The E. and W. center line of sec. 24 was found to be N. 89° 52' W.

## Chains

The N. and S. center line of sec. 24 was found to be  
N. 0° 40' E.

## FIELD ASSISTANTS:

Name	Capacity
Robert J. McCusker	Transitman
Carl W. Hacker	Chainman
Cecil D. Emmons	Chainman
Gerald Williams	Transit and Chainman
Richard R. Beard	Office Engineer

## DESCRIPTIVE REPORT

The soil is very poor and consists mostly of gravel of different sizes which cover limestone ledges. There is no timber and only scattered desert growth covers the area.

There are no surface streams. The gradient of the dry washes is very steep.

The town of Clifton, Arizona joins the south boundary of the claims but no habitation exists within a quarter mile of the claims.

One or both of the conflicting, Sur. No. 1545 Midnight lode and Sur. No. 949 Wonderful Mine lode have underground workings as shown on the plats.

The San Francisco River is within a quarter mile of the claims which probably supply water for the claims.

Works and expenditures include an access road built from Case Creek on the west, a difficult accomplishment and over a distance of several miles.

There are no mines, salt springs or mill sites on the claims.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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CERTIFICATE OF SURVEYOR

September 7, 1961

I, Sidney C. Kain,  
 Mineral Surveyor, hereby certify upon honor that in pursuance of an order received from the \_\_\_\_\_  
 Office Cadastral Engineer, at Phoenix, Arizona  
 dated August 24, 1961, I have faithfully and correctly executed the survey of  
 the mining claim of Phelps Dodge Corporation,  
 known as the Modoc No. 1 and Modoc No. 2 Placer Mining Claims  
(Lode, placer, or mill site)  
 situate in Gold Mountain Mining District,  
 T. 4 S., R. 29 E., G. & S. R. Meridian, Arizona, and  
(State)  
 designated as Survey No. 4577, 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 placer location(s) embraced in the said mining claim by  
(Lode or placer)  
 claimant(s) or \_\_\_\_\_ 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.

Tucson, Arizona  
(Place)

Sidney C. Kain  
(Mineral Surveyor)  
 Sidney C. Kain

CERTIFICATE OF APPROVAL

Bureau of Land Management, Survey Office  
(Office)  
Phoenix, Arizona December 20, 1961  
(Place) (Date)

The foregoing field notes of mineral survey No. 4577, in Gold Mountain Mining District  
Sec. 24, T. 4 S., R. 29 E., G. & S. R. Meridian,  
Arizona, executed by Sidney C. Kain, Mineral Surveyor,  
(State)  
 under order dated August 24, 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.

Fred J. Weiler  
 Fred J. Weiler  
 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

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CERTIFICATE OF SURVEY

Survey No. \_\_\_\_\_

Date of Survey \_\_\_\_\_

Locality \_\_\_\_\_

County \_\_\_\_\_

State \_\_\_\_\_

Section \_\_\_\_\_

Township \_\_\_\_\_

Range \_\_\_\_\_

Meridian \_\_\_\_\_

Corner \_\_\_\_\_

Witness \_\_\_\_\_

Surveyor \_\_\_\_\_

CERTIFICATE OF APPROVAL

Approved by \_\_\_\_\_

Date of Approval \_\_\_\_\_

County \_\_\_\_\_

State \_\_\_\_\_

Section \_\_\_\_\_

Township \_\_\_\_\_

Range \_\_\_\_\_

Meridian \_\_\_\_\_

Corner \_\_\_\_\_

Witness \_\_\_\_\_

Surveyor \_\_\_\_\_

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.