

Form 3860-10  
(February 1987)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Mineral Survey Number

4815

State

Arizona

Land District

Arizona

FIELD NOTES

Of the Survey of the Mining Claim of *(name and address of claimant)*

ASARCO Incorporated  
P. O. Box 5747  
Tucson, AZ 85703-0747

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

Helvetia Group

NAME OF CLAIM(S)

NAME OF LOCATION	DATE			BLM MINING CLAIM SERIAL NUMBER
	LOCATED AND AMENDED	RECORDED WITH COUNTY	RECORDED WITH BLM	
Jim lode Amended	4-15-56	6-9-56	3-25-77	A MC 2200
	12-29-76	1-6-77	3-25-77	

LOCATION OF CLAIM(S)

Mining district Helvetia			County Pima	
Section 24	Township 18 South	Range 15 East	Meridian Gila & Salt River	Survey under order dated 12-18-80, 1-23-89
Survey commenced 12-20-80		Survey completed 9-1-81	Name of Mineral Surveyor Harvey W. Smith	

## Mineral Survey No. 4815

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This survey was made with a Swiss Kern theodolite, Model DKM 1, No. 77769, having horizontal and vertical circles, 50 mm. in diam. The circles are graduated in degrees and 20-minute increments. An optical micrometer, adjustable to the vertical and horizontal circles, permits the reading of angles direct to ten-second accuracy and estimating to one-second accuracy. 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 horizontal-angles-right referred to the meridian determined by the following observation:

August 27, 1981, at Cor. No. 1 of the JIM lode, latitude  $31^{\circ}51'16.3''$  N., longitude  $110^{\circ}45'36.8''$  W., elevation 5,240. ft. above sea level, and temperature  $101^{\circ}$ F., make a series of six altitude observations on 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 800 ft. northwestward S.W. to the sun.

Mean time of observation,  
105th meridian standard  
time =  $3^{\text{h}}48^{\text{m}}43^{\text{s}}$  p.m.

Declination of sun at mean  
time of observation =  $9^{\circ}50'12.9''$  N.

Mean observed vertical  
angle to sun's center =  $33^{\circ}20'50''$

Mean horizontal angle from  
reference point clockwise  
to sun's center =  $326^{\circ}18'52''$

True bearing to reference  
point =  $N.65^{\circ}58'46''$  W.

The lines were measured with a Lufkin steel tape, 300 ft. in length, graduated every foot for 299 ft. and the remaining foot graduated to tenths and hundredths; the tape was compared to an Invar standard tape at the beginning of the survey and found to be correct. In addition to the steel tape, a K & E Autoranger infrared distance measuring unit was used to measure

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	<p>some of the lines. Its accuracy was checked against a line measured with the foregoing steel tape and found to be correct.</p> <p>All lines and connections of this survey were run by direct methods.</p> <p>The magnetic declination observed at each corner of the survey gave a uniform value of <math>13^{\circ}30'E</math>.</p> <hr/> <p style="text-align: center;">Mineral Survey No. 4815</p> <hr/> <p style="text-align: center;">JIM LODE</p> <p>At Cor. No. 1 of the JIM lode.</p> <p>Set an iron post, 30 ins. long, <math>3/4</math> in. diam., 12 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X J.1 U.S.M.S. 4815; from which</p> <p style="padding-left: 40px;">The <math>1/4</math> section corner of secs. 13 &amp; 24, T.18 S., R.15 E., G.&amp; S.R.M., bears <math>N.23^{\circ}27'22"W.</math>, 2,705.37 ft. dist., monumented with an iron post, 1 in. diam., 12 ins. above ground, firmly set, with a brass cap properly mkd.</p> <p style="padding-left: 40px;">Cor. No. 4, M.S. No. 1308 King lode, bears <math>S.63^{\circ}21'36"E.</math>, 644.27 ft. dist.</p> <p style="padding-left: 40px;">A wood post, 4 x 4 ins. in size, 4 ft. above ground, sets adjacent to the iron post.</p> <p>No local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence <math>S.83^{\circ}16'54"E.</math></p>
483.78	Intersect line 4-1, M.S. No. 1308 King lode, at a point from which Cor. No. 4 bears $S.22^{\circ}20'E.$ , 251.12 ft. dist.
681.08	Intersect line 3-4, M.S. No. 1308 Exile lode, at a point from which Cor. No. 4 bears $S.47^{\circ}00'W.$ , 1,190.61 ft. dist.

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999.80	Intersect line 3-4, M.S. No. 1308 King lode, in part common with line 1-2 Malachite lode of the same survey, at a point from which Cor. No. 1 of the Malachite lode bears S.67°27'40"W., 151.10 ft. dist.; thence S.67°40'W., 300. ft. to Cor. No. 4 of the King lode.	
1,030.	Center of unimproved dirt road, 16. ft. wide, bears N.45°E. and S.45°W.	
1,054.65	<p>Cor. No. 2.</p> <p>Set an iron post, 30 ins. long, 3/4 in. diam., 12 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X J.2 U.S.M.S. 4815; from which</p> <p>Cor. No. 1, M.S. No. 1308 Malachite lode, bears S.75°08'08"W., 200.75 ft. dist.</p> <p>A wood post, 4 x 4 ins. in size, 4 ft. above ground, sets adjacent to the iron post.</p> <p>No local bearing objects or bearing trees available.</p> <p>Thence S.2°47'18"W.</p>	
141.65	Lode line; discovery point bears S.89°49'38"W., 250. ft. dist.	
391.65	<p>Cor. No. 3.</p> <p>Set an iron post, 30 ins. long, 3/4 in. diam., 12 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X J.3 U.S.M.S. 4815; from which</p> <p>Cor. No. 2, M.S. No. 1308 Broadtop lode, bears N.43°37'40"W., 74.73 ft. dist.</p> <p>A wood post, 4 x 4 ins. in size, 4 ft. above ground, sets adjacent to the iron post.</p> <p>No local bearing objects or bearing trees available.</p> <p>Thence S.89°49'38"W.</p>	

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FEET 29.30	Intersect line 4-1, M.S. No. 1308 Malachite lode, in part common with line 2-3 Broadtop lode of the same survey, at a point from which Cor. No. 2 of the Broadtop lode bears N.22°20'W., 58.57 ft. dist.; thence N.23°22'17"W., 311.13 ft. to Cor. No. 1 of the Malachite lode.										
820.97	Intersect line 3-4, M.S. No. 1308 Exile lode, at a point from which Cor. No. 4 bears S.47°00'W., 549.31 ft. dist.										
1,053.58	<p>Cor. No. 4.</p> <p>Set an iron post, 30 ins. long, 3/4 in. diam., 12 ins. in the ground, in a concrete and rock base, with a brass cap firmly secured to the iron post, mkd. X J.4 U.S.M.S. 4815; from which</p> <p style="padding-left: 40px;">Cor. No. 4, M.S. No. 1308 Exile lode, bears S.24°20'17"W., 410.40 ft. dist.</p> <p style="padding-left: 40px;">A wood post, 4 x 4 ins. in size, 4 ft. above ground, sets adjacent to the iron post.</p> <p>No local bearing objects or bearing trees available.</p> <p style="text-align: center;">Thence N.2°47'18"E.</p>										
23.89	Intersect line 1-2, M.S. No. 1308 Broadtop lode, at a point from which Cor. No. 2 bears N.88°05'17"E., 1,001.41 ft. dist.; and center of unimproved dirt road, 16. ft. wide, bears S.85°E. and N.70°W.										
250.00	Lode line; discovery point bears N.89°49'38"E., 803.58 ft. dist.										
518.35	Cor. No. 1, and place of beginning.										
<hr/> Mineral Survey No. 4815 <hr/>											
<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">AREAS</th> <th style="text-align: right;">Acres</th> </tr> </thead> <tbody> <tr> <td>Total area, JIM lode -----</td> <td style="text-align: right;">10.990</td> </tr> <tr> <td>Area in conflict with:</td> <td></td> </tr> <tr> <td>M.S. No. 1308 Broadtop lode -----</td> <td style="text-align: right;">0.911</td> </tr> <tr> <td>M.S. No. 1308 King lode -----</td> <td style="text-align: right;">1.302</td> </tr> </tbody> </table>		AREAS	Acres	Total area, JIM lode -----	10.990	Area in conflict with:		M.S. No. 1308 Broadtop lode -----	0.911	M.S. No. 1308 King lode -----	1.302
AREAS	Acres										
Total area, JIM lode -----	10.990										
Area in conflict with:											
M.S. No. 1308 Broadtop lode -----	0.911										
M.S. No. 1308 King lode -----	1.302										

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FEET	Areas	Acres
	M.S. No. 1308 Malachite lode -----	1.017
	M.S. No. 1308 Exile lode -----	5.207
	M.S. No. 1308 Exile lode, exclusive of its conflict with:	
	(1) M.S. No. 1308 King lode -----	4.888
	(2) M.S. No. 1308 Broadtop lode-----	5.049
	(3) M.S. No. 1308 King and Broadtop lodes -----	4.730
LOCATION		
This survey is located in the SE 1/4 and NE 1/4 sec. 24, T.18 S., R.15 E., G.& S.R.M.		
The survey of the JIM lode is identical with the 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 lode locations embraced in said mining claim by the claimant or its grantors are as follows:		
No. 1	The discovery point of the JIM lode is on the lode line, 250. ft. from a point on line 2-3, 141.65 ft. from Cor. No. 2, a post and notice. Value, None.	
No. 2	A drill hole, No. A 784, bears N.44°15'W., 392. ft. from Cor. No. 3 JIM lode; size NX; 75. ft. deep. Value, \$720.80	
An interest in a common improvement described as follows:		
Access roads traverse the common group of 50 claims M.S. Nos. 4816, 4817, 4818, 4819, 4820 and 4821, (all unapproved) and provide access to this lode.		
Value of access roads Value apportioned to JIM lode (1/50th interest)		\$50,000.00  \$ 1,000.00
Five hundred dollars or over has been expended in this improvement in such a manner as tends to the development of the lode of this survey subsequent to its location and to the time since which common ownership and contiguity have prevailed, therefore, an		

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undivided interest, as described above, in its value is hereby credited to this lode and a like interest apportioned to each of the other stated lodes of the common group.

Except as above stated, no portion of or interest in these improvements has been credited heretofore as patent expenditure to any lode claim.

## OTHER IMPROVEMENTS

None

OTHER CORNER DESCRIPTIONS  
AND SUPPLEMENTAL DATA

M.S. No. 1308 Broadtop lode: Cors. Nos. 1 and 2 are monumented with wood posts, 4 x 4 ins., 2 ft. above ground, slightly loose in the stones, or ground. The inscribed data is partially identifiable. Cor. No. 3 could not be found. Line 1-2 was found to be N.88°05'17"E., 1,331.37 ft. instead of N.88°10'E., 1,330.00 ft. as approved. Line 2-3 is shown as approved.

M.S. No. 1308 Exile lode: Cor. No. 4 is monumented with a wood post, 4 x 4 ins., 2 ft. above ground, slightly loose in the stones, or ground. The inscribed data is partially identifiable. Cor. No. 3 could not be found. Line 3-4 is shown as approved.

M.S. No. 1308 King lode: Cors. Nos. 3 and 4 have been obliterated. Line 3-4, that part common with line 1-2, M.S. No. 1308, Malachite lode, described below. From Cor. No. 1 of the Malachite lode to Cor. No. 4 of the King lode, it is shown as approved. Line 4-1 is shown as approved.

M.S. No. 1308 Malachite lode: Cors. Nos. 1 and 2 are monumented with wood posts, 4 x 4 ins., 2 ft. above ground, slightly loose in the stones, or ground. The inscribed data is partially identifiable. Line 1-2, in part common with line 3-4, M.S. No. 1308 King lode, was found to be N.67°27'40"E., instead of N.67°40'E., as approved. Line 4-1 is described as follows: from Cor. No. 4 to Cor. No. 2 of the Broadtop lode of the same survey, the line is shown as approved. From Cor. No. 2 of the Broadtop lode to Cor. No. 1 of the Malachite lode, the line was found to be N.23°22'17"W., 311.13 ft., instead of N.22°20'W., 300.00 ft. as approved.

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MEMORANDUM

None

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FIELD ASSISTANTS

Name	Capacity
Kent Miller	Assistant Instrumentman
Eric O'Neil	Rodman-Chainman



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

CERTIFICATE OF SURVEYOR

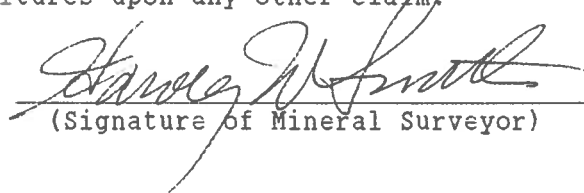
Name of Mineral Surveyor	Date
Harvey W. Smith	July 10, 1989

I HEREBY CERTIFY That in pursuance of an order received from the Arizona State Office, Bureau of Land Management, at Phoenix, Arizona, dated December 18, 1980 and amended January 23, 1989, I have carefully executed the survey of the claim of ASARCO Incorporated, known as the Jim lode, situated in surveyed section 24, Township 18 South, Range 15 East, Gila and Salt River Meridian, in the State of Arizona.

This survey, designated as number 4815, has been executed by me and under my direction and has been made in strict conformity with said order, the Manual of Instructions for the Survey of Public Lands of the United States, and in specific manner described in the foregoing field notes.

I FURTHER CERTIFY That the labor expended and improvements made upon and for the benefit of the Jim lode location embraced in the said mining claim by claimant(s) or its grantors are fully stated in my report. The character, extent, location, and itemized value are specified in full detail. 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.

Scottsdale, Arizona  
(Location)

  
(Signature of Mineral Surveyor)

Title 18, U.S.C. section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

## CERTIFICATE OF APPROVAL

Arizona State Office  
Phoenix, Arizona  
August 2, 1989

The foregoing field notes of mineral survey number 4815, in surveyed section 24, Township 18 South, Range 15 East, Gila and Salt River Meridian, in the State of Arizona, executed by Harvey W. Smith, Mineral Surveyor, under order dated December 18, 1980 and amended January 23, 1989, 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.

*James P. Kelley*

(Authorized Signature)

Chief Cadastral Surveyor of Arizona

(Title)

~~CERTIFICATE OF TRANSCRIPT~~

~~I HEREBY CERTIFY That the foregoing transcript of field notes of the above-described mineral survey number 4815 is a true copy of the original field notes.~~

~~Chief Cadastral Surveyor of Arizona~~

~~(Authorized Signature)~~

~~(Title)~~